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Debunking the Genocide Allegations: A Reexamination of the Israel-Hamas War from October 7, 2023 to June 1, 2025

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Only the blind need guides in open and level fields... Learn from the writings of Aristotle, but do not bow your heads to his authority—use reasoning, whether yours or Aristotle's, and not quotes or authorities, for we are dealing with our sensory world, not a world of paper.

Galileo Galilei, *A Dialogue Concerning the Two Chief World Systems*

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Preface to the English Edition

Following the publication of our Hebrew edition on July 4 2025, we received extensive feedback from readers, critics, experts, and commentators. We have since reviewed new studies—some critical of the sources we employed—and updated our assessments accordingly. This period also allowed us to reassess many aspects of our original Hebrew text, and in some cases, we found that valid criticisms warranted corrections and revisions. Consequently, this English edition is not a mere translation of the Hebrew version but a thoroughly revised, corrected, and updated work. We acknowledge that in scientific discourse, no one ever speaks the final word, and we welcome ongoing engagement with critics to further refine and update our analysis.

Although significant developments in the Gaza War have occurred since the conclusion of our study on June 1, 2025, we chose not to extend the scope of this edition. Analyzing new events requires time for careful examination, cross-referencing, and verification amid the fog of war.

24.7.2025

The Authors

Debunking the Genocide Allegations: A Reexamination of the Israel-Hamas War from October 7, 2023 to June 1, 2025

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Executive Summary

This research offers a thorough historical exploration and a quantitative-statistical analysis of the allegation that the State of Israel committed genocide against the Gazan population during the period from the October 7, 2023, massacre in Israel to the conclusion of our study on June 1, 2025. Specifically, we address the claims that Israel intentionally starved the Gazan population, that IDF ground forces deliberately massacred civilians, and that the Israeli Air Force (IAF) carried out indiscriminate bombings, failing to distinguish between combatants and civilians and conducting disproportionate strikes.

The goal of this research is to carefully assess both primary and secondary sources in order to draw independent conclusions about the events of the conflict. This process involved reviewing testimonies, primary sources, and the methodology of data collection utilized by organizations and researchers promoting the genocide allegation, as well as conducting statistical analysis and distinguishing between narratives promoted by various parties and verified facts. The purpose of our investigation is to identify the factual events that occurred, not to engage in legal or ethical discourse. While discussing the war's legal and ethical implications is important, we firmly believe such discussion must be grounded in a solid foundation of facts to be meaningful as well as relevant.

Our focus on factual analysis in no way diminishes or ignores the severe human suffering in Gaza, nor does it seek to downplay the rhetoric or policy failures of the Israeli government. However, as we demonstrate throughout this report, subordinating factual analysis to the advocacy of a specific policy or ethical position undermines our ability to understand the facts needed to shape informed policy and ethical conduct. Therefore, we have made every effort to avoid taking any stance or offering recommendations that are not rooted in comprehensive factual analysis.

This research is structured into eight chapters, each addressing different aspects of the Israel-Gaza conflict:

- **Chapter 1** examines accusations of the deliberate starvation of Gaza's civilian population.
- **Chapter 2** addresses the lack of sufficient context for understanding Israel's military actions during the war, particularly the challenges of urban warfare. We focus primarily on Hamas's practice and overall strategy of using "human shields", recognizing that war is shaped by reciprocal measures taken by all parties involved. Thus, the actions of one side to the conflict cannot be assessed without considering those of its adversary.
- **Chapter 3** provides an in-depth analysis of claims regarding deliberate killings of civilians.
- **Chapter 4** investigates allegations that Israel systematically violated the principles of distinction and proportionality in its strikes on the Gaza Strip.
- **Chapter 5** critically reviews Gaza Health Ministry (GMOH) data and manipulations. While recognizing the uncertainty of the available figures, we offer a speculative scenario for how these

manipulations skewed the actual gender and age distribution of casualties, and draw conclusions as to plausible combatant-civilian casualty ratios.

- **Chapter 6** explores the capability of UN agencies, humanitarian organizations, and major media outlets to assess humanitarian crises in closed societies under oppressive regimes such as Hamas-controlled Gaza. It draws a comparison to Iraq under US sanctions between 1991 and 2003 and proves the inability of said organizations to pierce the heavy-handed humanitarian deceptions of the Iraqi regime.
- **Chapter 7** evaluates the ability of UN agencies and human rights organizations to credibly distinguish between civilians and combatants among war casualties in contexts marked by manipulation and politicization within closed or controlled societies. This chapter includes findings from a comparative analysis of the 2002 Battle of Jenin, the 2006 Lebanon War, and previous conflicts in Gaza.
- **Chapter 8** analyzes the methodologies used by UN agencies, human rights organizations, and affiliated journalists and researchers that have led to recurring analytical failures, as well as the lack of subsequent insights or corrective action even when those failures were eventually acknowledged by the same actors.

Our key findings are as follows:

Chapter 1

1.A. Claims of starvation prior to March 2, 2025, were based on erroneous data, circular citations (creating a media "echo chamber"), and a failure to critically review sources. The starvation claims are not based solely on the ethical or legal interpretation of disputed data, but on a continuous pattern of reliance on empirically inaccurate information, unfulfilled predictions, and a failure to acknowledge errors, even after false data was debunked and withdrawn by those who introduced it. In fact, throughout most of the war more provisions were delivered into Gaza than prior to October 7, by a margin greater than any credible estimates of loss of Gazan agricultural production.

Specifically, claims of deliberate starvation are based on three empirically false assumptions.

First, there is the erroneous evaluation of the amount of food brought into the Gaza Strip prior to the war, which is currently used to estimate the number of food trucks required for Gaza's survival. UN agencies and human rights organizations claim that **500 trucks** must be provided daily to prevent starvation, citing the fact that, prior to the outbreak of the war, this was indeed the number of trucks arriving each day, 150 of which were loaded with food. **However, this claim is patently false.**

A straightforward review of pre-war OCHA (the UN agency tasked with the transfer of aid and other goods into Gaza) data shows that throughout 2022, an average of only 292 trucks entered Gaza daily, half of which were loaded with construction materials, and of which only 73 were food trucks. Contrary to prevailing assumptions, there is no evidence of widespread, life-threatening deprivation during that period. In fact, infant mortality rates in Gaza decreased and life expectancy rose throughout 2006-2022 at rates comparable to those in Jordan, Egypt, and the West Bank. By 2022, the gap between Gaza and the West Bank in these parameters had narrowed, while Gazan life expectancy remained higher and its infant mortality rate lower than those of both Jordan and Egypt.

The assumption that 500 daily trucks prior to the war were barely sufficient to keep Gazans perched on the brink of disaster led UN agencies and human rights organizations to wrongly conclude that fewer than 500 trucks per day entering Gaza must by definition result in starvation. This fallacy formed the basis for inaccurate calculations, including by the IPC, which have been widely disseminated in media reports and public discourse.

1.B. A second assumption made by UN agencies, human rights organizations, and many media outlets was that local food production in the Gaza Strip prior to the war was significantly higher than actual figures suggest. An Amnesty International report on this matter claimed that 44% of food consumption in Gaza was locally produced, and therefore the destruction of local production sources contributed to starvation. However, our review of this report reveals that it was based on an unclear calculation of Palestinian Central Bureau of Statistics (CBS) data from the early months of the war, which did not concern caloric intake. Rather, it merely compared household expenditures on imported foodstuffs versus domestically produced foodstuffs.

Most domestically produced food in the Strip consists of expensive items such as meat (raised on imported animal feed), fish, vegetables, and fruit. In contrast, the bulk of caloric intake comes from cereals and oils, which are not produced locally and are largely distributed as in-kind aid by UNRWA and the World Food Program (WFP). Together, these agencies account for 40% of the Strip's required caloric consumption. The common assessments also failed to account for available data concerning Gaza's extremely limited agricultural output and the basic food consumption patterns of neighboring countries, which would have uncovered the implausible nature of their conclusions. **In fact, local agriculture in Gaza is unlikely to have accounted for more than 12% of caloric intake prior to the war, even before subtracting exports of domestically produced foodstuffs or meat, dairy and eggs produced with imported animal feed at a low conversion efficiency.**

1.C. The third assumption made by UN agencies and human rights organizations pertains to the total amount of food entering the Gaza Strip during the war. Based on our analysis of available data, a maximum of 82 food trucks were needed daily during the war to ensure food supply equal to the prewar situation, without allowing for greater caloric density and efficiency of provisions during the war. On average, Israel exceeded this number up to the January 2025 ceasefire (during which the territory was flooded with food supplies sufficient for six additional months), providing a food supply sufficient to meet the caloric needs of the entire population, and also meeting other important nutritional parameters.

However, during the May 2024 Israeli military offensive in Rafah, UNRWA claimed that the number of trucks entering the Strip had dropped by 70%, below pre-war levels, and persisted in this claim over the following months. This claim was disputed by reports from the IDF's Coordinator of Government Activities in the Territories (COGAT), which showed that there was no reduction in food supplies and that May shipments were **greater** than those in April and that supply levels in the following months remained, on the average, **higher** than the preceding period – and at any event were significantly greater than pre-war levels. **UNRWA was eventually forced to retroactively correct its figures around December 2024, though these corrections were never publicly announced or reported in the media. Updated UN data now conforms with COGAT's assertion of increased supplies following May 2024.** Despite this, false reports concerning a drop in humanitarian supplies following the Rafah operation continue to be circulated, perpetuating claims of deliberate starvation.

1.D. Nevertheless, we strongly criticize the Israeli government's decision in March 2025 to halt aid supplies to Gaza, notwithstanding the systematic looting and profiteering of aid by Hamas. Humanitarian aid resumed in May 2025 in insufficient though growing quantities, even if one considers the nascent Gaza Humanitarian Fund (GFH). Despite this, the challenge persists of ensuring that aid reaches Gazan civilians without being seized by Hamas. **Thus, the promotion of alternative distribution methods, such as the efforts of the GHF efforts starting on May 24, 2025, to deliver aid without enabling looting or seizure by Hamas is not only a militarily legitimate practice but a humanitarian necessity. With that said, it was wrong to block traditional distribution methods before viable alternatives were established.**

1.E. At the time of publication of this report, we are still engaged in an ongoing dialogue with noted scholar Michael Spagat concerning his family survey of Gazans during December 2024-January 2025.

Methodological questions remain, most glaringly in regard to the seemingly massive over-representation of imprisoned family members and low household size and number of children reported by this population. However, insofar as the survey is representative and methodologically sound, the low level of non-violent, non-accidental death of children reported by the survey participants does not support a scenario of widespread malnutrition, let alone starvation-driven excess mortality.

The reported excess non-violent mortality is minuscule compared with the projections circulated by the IPC or the much-quoted *Lancet* studies. It is also concentrated among the middle-aged and elderly and seems to reflect the inability of Gaza's medical system, which, prior to the war, offered near-western levels of comprehensive coverage, to continue providing life-extending and life-saving treatments to individuals suffering from chronic diseases and acute conditions. This is a function of prioritizing treatment of traumatic injuries, disruption of medical supplies, and disruption of hospital activities by recurrent Hamas abuse of medical facilities and resultant IDF raids that inflicted damage on medical infrastructure.

1.F. In order to offer a grounded assessment, rather than one based on partial and slanted real-time reports, we are deferring judgment on the operation of the GHF aid distribution compounds. Our follow-up update, hopefully towards the end of the upcoming ceasefire, will focus on this issue. More generally, this choice reflects our approach, which prioritizes accuracy over immediacy and general skepticism about the possibility of reaching conclusive findings amid the immediate fog of war.

Chapter 2

2. A. A central flaw in the body of research outlining accusations of severe and deliberate war crimes by Israel in Gaza is the complete omission of any discussion about Israel's adversary in the conflict, namely Hamas, and its tactics. It is impossible to properly assess the actions of the IDF (or any other military) without considering the specific conditions under which it operates. Additionally, one cannot reach ethical conclusions without understanding and addressing the factual circumstances of combat. Any conflict is inherently reciprocal, where one party's actions influence the response of the other, shaping the means employed and the potential scope of military maneuvers.

2.B. Through a historical comparative analysis, we demonstrate that the war in Gaza represents one of the most complex military challenges ever faced by any Western army. Not only is the conflict being waged in an urban environment, which naturally presents significant obstacles for the offensive force and offers a multitude of defensive advantages in a three-dimensional terrain, but Hamas has also spent decades developing the most extensive subterranean tunnel network ever documented in military history. These tunnels span over 500 kilometers and include 5,700 connective shafts, all integrated into the civilian infrastructure of the Gaza Strip.

2.C. Relying on original documents, visual evidence, and numerous other sources, we demonstrate that Hamas, according to reports from its own operatives, consistently uses Gazan civilians as "human shields" to deliberately increase casualties and, in turn, amplify international pressure on Israel. In fact, the practice of increasing civilian fatalities to limit Israeli operations and generate international pressure is a central component of Hamas's battlefield tactics. Hamas has used civilian homes, hospitals, and schools to store weapons, launch rockets, house combatants, and establish operational positions. Its operatives also wear civilian clothing to blend in with the population in areas designated as "safer" or in humanitarian zones. Most notably, Hamas has focused on booby-trapping a vast number of buildings, leading to widespread devastation in the Gaza Strip—destruction that surpasses that typically seen in high-intensity urban warfare in other conflicts.

While these facts do not justify any action undertaken by the IDF nor absolve it of its obligation to comply with international law, and do not serve as an argument against the possibility of war crimes, it is crucial to consider these circumstances when analyzing the Gaza war, especially when making legal or ethical judgments about the conduct of the conflict.

Chapter 3

3.A. **There is no evidence to suggest a systematic Israeli policy of targeting or massacring civilians.** It is our assumption that every war involves war crimes, and it is the responsibility of the military to investigate, identify, and hold accountable those responsible in order to minimize such transgressions as much as possible. Throughout our research, we have reviewed forensic evidence that may indicate war crimes committed by individual IDF soldiers. However, those who accuse Israel of genocide erroneously suggest that most civilian casualties in Gaza were entirely unjustified from a military standpoint, portraying those cases in which deaths do seem unjustified not as outliers but as part of a broader, systematic, and deliberate policy of extermination by the IDF. **The small number of instances involving persuasive supportive evidence of intentional killings by military personnel does not support this accusation.**

3.B. For example, among the numerous accusations presented by UN agencies, human rights organizations, and media platforms in one major database we studied, we located descriptions of incidents with evidence or specific claims of deliberate killings that account for a total of only 61 fatalities out of the 50,021 war casualties reported by the Gaza Health Ministry in their March 2025 report. Furthermore, some of these accusations are based on unreliable sources.

3.C. Our research includes a thorough review of social media posts, videos, and testimonies and juxtaposes these reports with existing data to assess their credibility. **The findings reveal that the majority of cases that include forensic evidence and raise suspicions of severe war crimes are typically instances of unjustified civilian deaths occurring during operations to clear buildings, or of Gazan, in a few cases carrying white flags, entering zones declared "forbidden" by the IDF.** We have carefully examined the military justification (or lack thereof) for such offensive actions, identifying the cases that strongly suggest potential war crimes.

3.D. **It is important to emphasize that, throughout the Israeli-Gaza War, no credible forensic evidence has been provided to substantiate claims of close-range mass killings of civilians or executions of helpless noncombatants.** The majority of such allegations appear to be based on claims by Hamas-related organizations who offer no tangible evidence. **This contrasts sharply with the substantial forensic evidence documenting atrocities in the 2025 massacres of Syrian Alawites, the Battle of Mosul, the Second Gulf War, and, of course, the October 7 attacks.** However, there is credible forensic evidence for possible atrocities committed by IDF soldiers during the March 2025 attack on paramedics in Tal al-Sultan, a case that we examine in detail.

3.E. **Subsequently, we provide a detailed and comprehensive review of testimonies from physicians associated with the Palestinian American Medical Association (PAMA), who volunteered in Gaza and made claims of the systematic murder of Palestinian children by IDF soldiers. We demonstrate that these claims are statistically and quantitatively improbable, contradict other studies on the distribution of injuries in the Strip, and are scientifically dubious.**

Specifically, we question why physicians who have worked in Gaza's hospitals for months claimed they never encountered armed Hamas operatives or infrastructure on hospital grounds, which contradicts the testimonies of Israeli hostages, a kidnapped Yazidi woman unrelated to the Israel-Palestine conflict, a Kurdish volunteer physician, and many Palestinians, as well as forensic evidence produced by the IDF. **Furthermore, we show that reports from volunteer physicians on the use of Israeli drones armed with sniper rifles to hunt down children throughout the Gaza Strip are contradicted by the facts.** The IDF does not use such platforms operationally, and the existing experimental models have never been deployed in combat—certainly not in Gaza.

Chapter 4

4.A. **We have found no evidence to support claims of deliberate bombing of civilians by the IDF during the war, nor any indication of carpet bombing intended to inflict mass civilian casualties in Gaza.** While we did identify a significant number of tragic cases where innocent civilians were killed, some of which raise concerns about negligence, lack of caution, or even disregard for human life, **it is clear that the IDF has employed numerous protective measures to minimize "collateral damage".** Some of these precautions are unprecedented in global military history and have come at a significant cost to the IDF, particularly in terms of losing military advantages such as the element of surprise. Moreover, the military high command has vetoed many operations due to concerns over disproportionate collateral damage. As a result, urban warfare experts have raised concerns that IDF tactics, such as focused warnings to evacuate specific areas, may set unrealistic operational standards for other militaries in the future.

4.B. Our review of the evidence includes a thorough examination of key principles of international law, particularly the principle of proportionality. We demonstrate how IDF policy in this regard is misrepresented in mass media as well as in reports by UN agencies and human rights organizations. **One common claim is that the IDF uses a so-called "convertibility quota" for permissible collateral damage, such as a standard of 20 civilian deaths for every junior Hamas operative or 100 for a senior operative. However, this claim has never been substantiated. In reality, this restriction is not a "quota" or a fixed standard for expected collateral damage, but rather a calculation determined by the military high command that sets the maximum acceptable damage relative to the expected military gains from an operation.** This calculation is adjusted according to the specific combat scenario and is subject to the directives of the IDF Chief of the General Staff. It is also frequently updated in real time according to available intelligence and decisions made by the high command.

Crucially, even when a planned attack meets the permissible standards for collateral damage, it is not automatically approved for execution by IDF command. Every offensive measure, whether targeting a senior or junior operative, must undergo a chain of approval, and there is no "quota" or fixed standard that automatically permits its execution. In some instances, commanders have aborted attacks even when the predicted damage falls below maximum thresholds, based on a variety of considerations. **Through several examples, we demonstrate that the IDF has, in many cases, refrained from launching air raids despite clear opportunities to target enemy combatants due to their proximity to civilians.**

4.C. **In our research, we conducted a meticulous analysis of the quantities of IDF armaments used, comparing them to examples from other war zones, and we demonstrate that these do not support any pattern of indiscriminate bombings.** On the contrary, a very high number of civilian casualties can result from single bombs, especially when civilians are packed in densely populated humanitarian shelters. In such circumstances, a military force aiming to maximize civilian casualties would likely opt for methods requiring the least amount of ammunition, unlike the case in Gaza.

4.D. **Another key issue we address is the question of so-called "safe zones".** After reviewing the matter, we highlight the generally inaccurate media coverage of this issue, both in terms of its legal implications and quantitative reporting. According to international law, safe zones are areas designated through mutual agreement between the conflicting parties—in this case, Israel and Hamas—who must both commit to refraining from military activities within these zones. Since Hamas never accepted this commitment, Israel could only declare areas that were "relatively" safe. Nevertheless, the accusations that Israel conducted strikes in these zones in the same manner as in other areas are unfounded. **The limited quantitative data available to us indicate that only 2-3.5% of the fatalities reported by the Gaza Health Ministry (GMOH) between May 2024 and January 2025 were located within these zones.** While accurate data may suggest a slightly higher figure, it still represents a negligible proportion of the total number of deaths. **The areas to which Israel directed Gazan civilians for evacuation were indeed safer than other parts of the Strip, by many orders of magnitude.**

4.E. **We have also examined claims that Israel violated the principle of proportionality by using “dumb” bombs, drones, and AI. Our analysis shows that these claims stem from a misunderstanding of military realities (such as underestimation of the actual accuracy of “dumb” bombs dropped by “smart” pilots) as well as the economic constraints and availability of weaponry in the international arms market.** Military, technical, and economic factors make it clear that no army can avoid using "dumb" bombs, as there is a shortage of precision-guided munitions (PGMs) available on the international market or through self-production. Legally, there is no prohibition against their use, provided they are deployed in accordance with military necessities, with proper precautions to minimize collateral damage and adherence to the principle of proportionality.

4.F. Finally, our research specifically investigated claims regarding the use of AI by the IDF and analyzed these reports within the framework of proportionality. Our findings reveal that at most, AI has been employed as a supportive tool, and there is no evidence to suggest that the mind of a human officer, with all its psychological biases, is more effective at protecting civilian lives.

Chapter 5

5.A. **Reports from the Hamas-controlled Gaza Health Ministry (GMOH) are unreliable, and these data are inevitably tainted by the "illusion of certainty"—the unfounded assumption that a single existing source is inherently trustworthy.** The absence of official alternatives has led to a situation where all parties involved in the conflict, including UN-affiliated human rights organizations, Western countries, and even the Israeli government, rely on the GMOH. This occurs despite the fact that the ministry is directly controlled by Hamas.

5.B. **By analyzing original Hamas documents, we demonstrate that since 2014, Gaza authorities have mandated the classification of all fallen combatants as "innocent citizens".** Hamas has consistently sought to present the highest possible civilian fatality count and has directed its health ministry to manipulate data. This includes concealing natural mortality figures, relying on dubious "media reports" to inflate the number of women and children among the casualties, and omitting the names of Hamas military operatives who have been killed.

5.C. Additionally, claims of genocide are based on the segmentation of fatalities by age, gender, and involvement in combat. However, the data published by Hamas's own Gaza Health Ministry (GMOH) reveals no significant difference in the distribution of fatalities when comparing the current war to Operation Protective Edge (2014). Such a variance would have indicated a shift in Israel's warfare doctrine, which is not observed. **A detailed statistical analysis shows that the frequently cited claim that 70% of war casualties are women and children is incorrect, even according to the GMOH's own data – and was false from the very beginning of the war.**

Chapter 6

6. A. The methodologies employed by human rights organizations and UN agencies are highly problematic. Unlike intelligence agencies, which can deploy operatives and gather data even within closed, insulated societies or hostile factions, human rights organizations are largely limited to relying on testimonies from individual witnesses, publicly reported data, and cooperation with local governments, hoping that these sources remain politically neutral. However, recent history disproves this naïve assumption, as political biases often influence the information gathered and reported.

6.B. **In this chapter, we critically review the findings of academic researchers, medical experts, UN agencies and human rights organizations who concluded that hundreds of thousands of Iraqi children died during the American sanctions of the 1990s, based on reports from the Iraqi health ministry.** The claim regarding the dramatic rise in infant mortality in Iraq originated from a survey conducted by the UN FAO (Food and Agriculture Organization), which indicated an increase in infant mortality from 40.7 per

1,000 children to 198.2 deaths per 1,000 births—five times the original figure. Unsurprisingly, the interviewers who conducted this survey were enlisted by the Iraqi health ministry.

6.C. The FAO report, along with all subsequent studies that relied on it as a primary source, **presented estimates of over five hundred thousand additional pediatric fatalities in Iraq, generating intense international pressure to lift the sanctions and solidifying a global consensus about the horrific suffering endured by Iraqi children.** This played a pivotal role in efforts to gradually ease the sanctions, ultimately leading to their complete removal.

6.D. **However, following the collapse of the Saddam Hussein regime, it was revealed that this data was entirely false. There was no significant increase in child mortality in Iraq during the 1990s under the sanction regime.** When one of the original researchers publicly admitted the errors in the original 1995 report, her 1997 retraction not only received minimal media attention within the humanitarian community but received negligible academic citations compared to her original publication.

This phenomenon, which we term "the humanitarian bias," reflects how organizations committed to providing aid often believe alarmist reports from parties to a conflict, viewing them as urgent calls to prevent imminent disaster. Attempts to challenge this information with factual, quantitative evidence are frequently met with moral outrage, as they are perceived as dismissing the suffering of victims. The Iraqi case serves as an example of how, even after a myth has been conclusively debunked and retracted by its original source, the correction is often made under the radar, without affecting public awareness, media coverage, or academic discourse. **We examine this case as a methodological archetype for the recurring errors made by humanitarian organizations in other conflict zones, including the current Israel-Gaza War.**

Chapter 7

7.A. **Due to their flawed methodology, UN and human rights organizations often struggle to provide reliable assessments of casualty numbers in conflict zones, and their reports must be carefully cross-referenced with other sources.** As a case study, we analyze their reports on various past conflicts, including Operation Defensive Shield, the Second Lebanon War, Operation Cast Lead, and Operation Protective Edge. For example, during the Battle of Jenin in 2002 (part of Operation Defensive Shield), Palestinian civilians, medical practitioners, and Palestinian Authority officials claimed that Israel had committed a massacre of hundreds of camp residents. Human rights organizations quickly accepted testimonies alleging that Israel had slaughtered over 100 civilians, despite IDF reports detailing the exact number of fatalities (53) and their identities. Over time, evidence emerged showing that the final casualty figures closely matched the IDF's reports, with the majority of fatalities identified as active combatants.

7.B. During the 2006 Lebanon War, Human Rights Watch conducted a detailed study and concluded that only a small number of Hezbollah combatants were killed by the IDF, in stark contrast to the higher civilian death toll. Their findings were incompatible with Hezbollah's own casualty count, as well as providing an example of overrepresentation of minor militias (Amal and a Communist armed faction) that did not seek to conceal their casualties within HRW's identified combatants. We have analyzed similar failures in previous conflicts in Gaza, specifically Operation Cast Lead (2008) and Operation Protective Edge (2014).

Chapter 8

8.A. **Finally, based on our findings throughout this study, we attempt to define the problems and failures in methodologies employed by human rights organizations, media outlets, academic researchers, and UN agencies in conflict zones,** including the current Israel-Gaza War. Our goal is to offer constructive feedback for the benefit of future evaluations. Specifically, we identify the following problems:

- **The failure to critically evaluate information, which involves compiling a large number of sources without assessing their reliability.** This entails an unwillingness or

inability to exclude unreliable sources, resulting in the mixing of credible and untrustworthy information. This approach ultimately creates the illusion of validation of false claims by presenting them as if they are supported by verified primary sources.

- **The “inverse information funnel”:** A situation in which a small number of biased sources are “fragmented” into an outwardly large corpus of seemingly reliable sources. This presents a false image of reliability, a failure often at the root of untruthful accusations regarding massacres or starvation in Gaza. This phenomenon is described in Figure 1.
- **The “burden of proof fallacy”** assumes that all information from Israeli military sources is inherently unreliable unless independently verified by a media institution with immediate access to all information, open as well as classified. This standard is impossible to meet due to the sensitivity of intelligence sources. In contrast, claims from Gazan civilians, civil society organizations, and medical professionals—assumed by default to be neutral parties—are automatically accepted as reliable unless proven otherwise. However, as we demonstrate, testimonies from within Gaza’s closed, totalitarian society, including those of activists, journalists, and physicians, must be rigorously scrutinized. **These reports should be cross-checked with other data, and wherever possible, the primary sources should be thoroughly investigated.**
- **The “certainty mirage”** refers to a bias stemming from the inability to complete or verify data on the number and status of combatant and civilian casualties, either on an individual and local level or in total, during a conflict. Many individuals and organizations find the lack of certainty and insufficient data unacceptable, and as a result, **they often attempt to fill in the gaps using unreliable sources.**
- **Catastrophic proclamations and muted retroactive corrections describe the phenomenon where harsh accusations against Israel, particularly those reinforced by the UN regarding the demographic distribution of conflict casualties (with claims that 70% were women and children), the collapse of humanitarian aid in Rafah (with a reported 70% drop in aid allowed into the Strip), and claims about 500 aid trucks entering Gaza daily before the war, have all been conclusively refuted.** In most cases, the claimants themselves retracted their reports. However, while accusations of a humanitarian catastrophe are widely echoed by the media, the humanitarian community, and even scholars, **the retractions of these false reports were made with minimal publicity and a complete lack of transparency. Retractions are rarely if ever covered by the media. As a result, misinformation continues to be cited in media and UN reports long after being debunked by the original authors.** This mirrors the findings presented in Chapter 6 regarding supposed infant mortality under the sanctions regime against Iraq.
- **That being said, our position is not that all claims made by human rights organizations should be categorically dismissed, nor that reports from Western militaries, including the IDF, should be automatically accepted.** Researchers must remain mindful of potential methodological issues and biases in any analysis, including analysis of the current Israel-Gaza War. All research should be conducted with utmost caution, verifying and consolidating data from a range of sources—Israeli, Palestinian, and international—and conducting a thorough review of their credibility. To navigate this research minefield, we propose a more effective methodology for investigating war crimes in conflict zones such as Gaza. This proposal is illustrated in Figure 2.

Finally, we feel compelled to express our deep concern about the widespread use of the term "genocide" by certain parties we have reviewed. Much like currency losing value through inflation when printed recklessly, certain terms lose their significance when used indiscriminately. If all high-intensity urban military conflicts in the future—despite significant efforts to protect civilian lives—are labeled as acts of genocide simply because of the immense human suffering they cause, the outcome will be fundamentally contrary to the objectives of International Humanitarian Law. Rather than deterring aggressors and preventing atrocities, the term "genocide" will lose its profound legal and emotional weight, becoming a political tool. In future crises, including those where deliberate, systematic efforts to annihilate a nation or group occur, the trivialization of genocide will serve as an excuse for future atrocities. As a result, international laws meant to protect vulnerable populations could be severely undermined, with grave consequences for all of humanity.

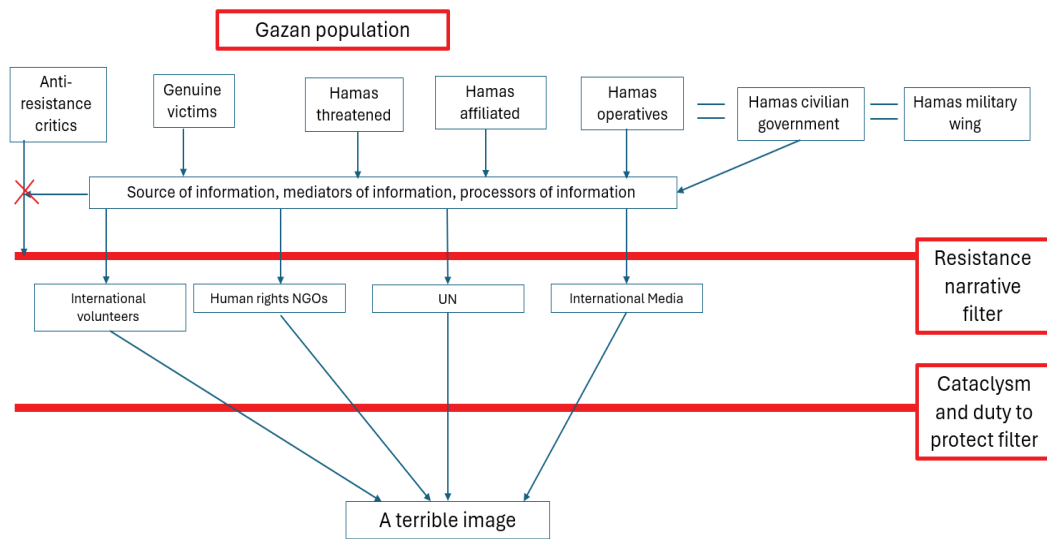


Figure 1: The inverted funnel in the Israel-Gaza conflict

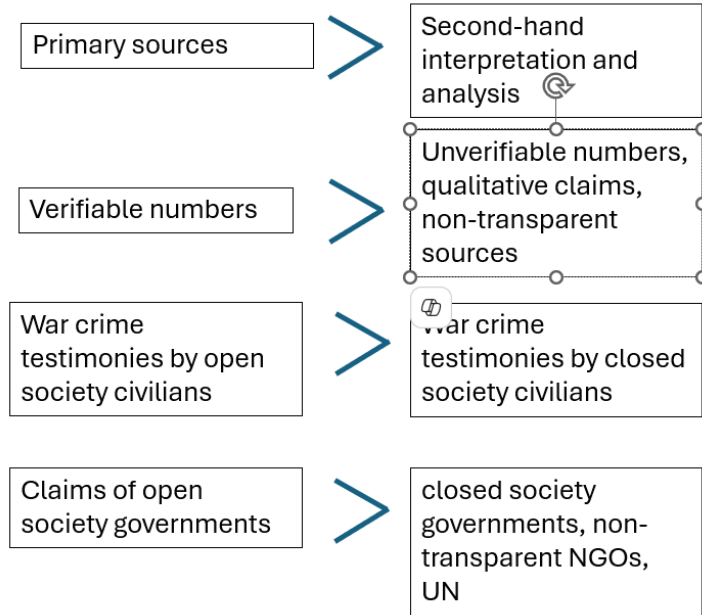


Figure 2: Source preference in conflict zones

In the appendices, which will be added to this study later, we will examine in depth the following: questions of forensic analysis of PAMA visual evidence (Appendix I); errors in UN truck counting (Appendix II); UNRWA retroactive corrections (Appendix III); water supply to Gaza during the war (Appendix IV); analysis of dated GMOH casualty counts (Appendix V); the flawed methodology of Iraq War family surveys, with lessons applicable to the Gaza War (Appendix VI); and, finally, geolocation issues and other problems in Spagat and Shikaki's family survey (Appendix VII).

Introduction

The October 7 massacre carried out by Hamas in Israeli towns, villages and kibbutzim along the Gaza border was met with widespread international condemnation. Yet almost immediately afterward, numerous actors—including, most prominently, the human rights organization Amnesty International—began accusing Israel of war crimes, crimes against humanity, and even genocide. Remarkably, many of these allegations were already being made before Israel had fully regained control of the communities overrun by Hamas.¹

These claims soon culminated in a case brought before the International Court of Justice (ICJ) by South Africa on December 29, 2023. South Africa's position was that Israel was guilty of genocide in Gaza, just seven weeks after the massacre in its own communities surrounding the coastal enclave. Although the case remains undecided, the proceedings have resulted in several ambiguous injunctions against Israel, including orders related to the entry of supplies into Gaza and an injunction against the Rafah offensive—an operation that was heavily contested and delayed at a critical juncture in the conflict. These injunctions, combined with UNRWA reports highlighting insufficient deliveries of food, water, and medicine, especially following the Rafah operations, have fueled accusations by leading human rights organizations alleging Israel's non-compliance with ICJ directives and, in Amnesty International's case, allegations of genocide in Gaza.

Simultaneously, the ICC (International Criminal Court) issued arrest warrants against Prime Minister Benjamin Netanyahu and then-Defense Minister Yoav Gallant on suspicion of war crimes and crimes against humanity, although genocide was not among the charges.²

The research presented here seeks to rigorously examine these claims through a methodology grounded in military history and quantitative analysis. It draws on primary sources and systematically cross-checks existing data to approach the truth as closely as possible, aiming to contribute to a deeper understanding of the Israel-Hamas war as it unfolded between October 7, 2023, and the conclusion of this study on June 1, 2025. This is, by design, a provisional account, anchored in the data available as of June 1, 2025. In a rapidly evolving conflict, we believe it is more responsible to present a carefully delimited study than rush to sweeping conclusions on current events.

For our analysis, we utilized, among other sources, a vast database of allegations against Israeli conduct during the war compiled by Dr. Lee Mordechai, a historian who specializes in the Byzantine period.³ Mordechai argues that Israel is guilty of committing genocide against the Palestinian population in Gaza by specifically targeting civilians through deliberate massacres, conducting disproportionate bombings, and engaging in systematic starvation. His database proved valuable to our research because it compiles a wide range of studies, reports, and position papers from academics, UN agencies, and human rights organizations, all of which assert that Israel committed serious and systematic war crimes during its conflict with Hamas within the timeframe of our study.

We thoroughly reviewed these sources and present our findings in the chapters below. The ongoing Israel-Hamas war, like all urban conflicts, has caused death, destruction, and enormous human suffering. But many widely cited claims, when cross-checked against primary sources including those referenced by the

¹ Raz Segal, "A Textbook Case of Genocide", *Jewish Currents* (13.10.2023), <https://jewishcurrents.org/a-textbook-case-of-genocide>

¹ <https://www.amnesty.org/en/latest/news/2023/10/israel-opt-civilians-on-both-sides-paying-the-price-of-unprecedented-escalation-in-hostilities-between-israel-and-gaza-as-death-toll-mounts/>

² <https://www.icc-cpi.int/news/statement-icc-prosecutor-karim-aa-khan-kc-applications-arrest-warrants-situation-state> ; <https://www.icc-cpi.int/news/situation-state-palestine-icc-pre-trial-chamber-i-rejects-state-israels-challenges>

³ לי מרדכי, "עדות על מלחמת חרבות ברזל", (מעודכן ל-9.3.2025). ניתן לגשת למסמך באתר של המחבר: <https://witnessing-the-gaza-war.com/he/%d7%91%d7%99%d7%aa/>

organizations themselves, fail to withstand scrutiny. Some are uncorroborated; others are contradicted by the very data on which they are based.

We note that our analysis also encountered cases of misconduct—possibly even criminal—by Israeli soldiers that warrant investigation and, if necessary, prosecution and punishment. Moreover, we assume that these verified cases represent the tip of a possible iceberg of other cases that cannot be verified, as well as war crimes that may have been committed without being reported. However, individual war crimes are an unavoidable side effect of war that can be minimized but not absolutely prevented⁴. Nonetheless, the tip of the iceberg reflects the broader scope of what remains hidden beneath the surface. The relatively small number of verified cases we found in Mordechai’s extensive collection is surprisingly limited, especially given the scale and duration of this conflict compared to similar urban wars.

However, we were not satisfied with analyzing just this small number of cases. Our aim was to identify **possible patterns** of IDF misconduct and potential war crimes committed by Israeli military personnel. We examined which categories of military violations well-documented cases fell into, as well as which types of crimes were rare or largely absent in this conflict. In other words, by studying the tip of the iceberg, we sought to gauge the overall structure and composition of what lies beneath.

In **Chapter 1**, we examine in depth the allegation of starvation—that is, the characterization of the nutritional situation and aid entry into Gaza before and during the conflict—as a catastrophic Israeli attempt to starve the Gazan population. Unlike the other chapters, which require understanding of military contexts, cross-referencing conflicting sources, and interpretive judgment, the core of the starvation claim is based on a clear and unequivocal data set regarding the amount of food supplied to Gaza before and during the war. As we will show, many researchers, UN agencies, and human rights organizations have repeatedly cited figures that, upon closer examination, proved factually incorrect—even according to the assessments of their own organizations.

In fact, not only did Israel not intentionally starve Gaza, but from October 7, 2023 to March 2025, it delivered more food into the coastal enclave than before the war, and contrary to numerous projections, there was no widespread famine in Gaza during that period. Even when Israel decided to halt aid in March 2025, a decision we strongly criticize, sufficient food remained in Gaza to last until late July were it not for widespread looting by Hamas and other armed groups within the Strip.

The failure of numerous famine projections in Gaza during our timeframe stems from two flawed practices: first, the uncritical citation of statements from UN agency spokespersons, human rights organizations, and other data intermediaries without verifying the primary sources; and second, the delayed, retrospective, and often silent corrections of false claims and databases by both these intermediaries and UN agencies.

Chapter 2 explores a crucial yet often overlooked dimension in the work of many researchers, journalists, and human rights advocates: the reality of the urban battlefield. As we will demonstrate, war is a reciprocal endeavor, and an understanding of the tactics of one side (Israel) cannot be separated from a thorough analysis of the opposing side’s methods (Hamas). This is especially true in a densely populated, built-up environment riddled with tunnels—more so than any other battlefield in military history.

In particular, understanding the destruction and civilian casualties in Gaza requires a thorough analysis—not merely acknowledgment—of Hamas’s deliberate tactics of operating from hospitals, schools, kindergartens, and other civilian facilities, as well as extensively using its own civilians as human shields.

⁴ Alexander B. Downes, *Targeting Civilians in War* (Ithaca: Cornell University Press, 2008), pp. 246-247, 256-257; Benjamin Valentino, Paul Huth and Sarah Croco, ‘Covenants without the Sword: International Law and the Protection of Civilians in Times of War’, *World Politics*, vol. 58, no. 3, 2006; Hugo Slim, *Killing Civilians: Method, Madness and Morality in War* (London: Hurst, 2008), and especially James D. Morrow, *Order within Anarchy: The Laws of War as an International Institution* (Cambridge: Cambridge University Press, 2014), pp.339-377.

This chapter presents ample evidence, including original documents and aerial photographs, demonstrating Hamas's strategy of positioning combatants within densely populated civilian areas and utilizing large portions of civilian infrastructure to conceal its complex and extensive military network.

Chapter 3 argues that, despite the difficulties the urban battlefield poses in distinguishing civilians from combatants (challenges intensified by Hamas's tactics), claims of massacres in Gaza lack support in existing documentation. Drawing on military history and evidence from other conflicts, we note that wars involving widespread, planned massacres of civilians—or genocides aimed at the intentional extermination of an entire civilian population—inevitably generate extensive forensic evidence, such as photographs and videos depicting frontal massacres or summary executions of defenseless victims at close range. Such evidence was documented in cases like the Alawi coast clashes in Syria following Assad's fall, the Second Iraq War, the fight against ISIS in Mosul, and the October 7, 2023 massacre. In such conflicts, these atrocities are a leading cause of civilian deaths.

However, in Gaza—despite being one of the most documented war zones globally—no comparable forensic evidence has surfaced as of June 1, 2025. This chapter will analyze specific testimonies concerning deliberate killings of Gaza civilians, aiming to differentiate credible reports from unsubstantiated claims. Our selected case studies reveal a narrative technique wherein questionable reports are interspersed with reliable evidence, without clear differentiation, thereby creating the impression of widespread, systematic war crimes based on scant evidence. However, we did discover other patterns of IDF misconduct in Gaza, short of massacres, on which we elaborate in detail.

Chapter 4 examines the frequently misunderstood concepts of proportionality, distinction, and collateral damage as they relate to IDF aerial and artillery strikes. We demonstrate that Israel implemented unprecedented precautions to minimize harm to Gaza's civilian population. Additionally, data is presented showing that, contrary to widespread belief, civilians in the "safer zones" designated by Israel suffered significantly fewer casualties than those in the active combat areas from which civilians were urged to evacuate—an important fact that undermines allegations of intentional slaughter.

Chapter 5 examines the primary quantitative source underlying allegations of indiscriminate slaughter: reports from the Hamas-controlled Gaza Ministry of Health. We expose numerous manipulations and flaws concerning the number and identities of victims, cross-referencing available data with other sources where possible. Our analysis reveals that these figures have been repeatedly manipulated to inflate the proportion of women and children among the dead, followed by retrospective corrections—including the removal of thousands of casualties previously presented as verified victims.

As a result, the widely cited claim that 70% of the victims were women and children—used both in court and by activists to suggest targeted civilian harm—has been debunked. Updated records indicate that women of all ages and minors under 18 constitute 50.7% of casualties while men account for 73% of victims aged 18–59 and 67% of those aged 15–17, patterns consistent with previous conflicts in Gaza.

Moreover, the updated lists reveal gross and easily detectable manipulations, such as the inclusion of non-traumatic deaths—particularly among elderly females (and possibly males). Drawing on lessons from past Israel-Gaza conflicts and cautious cross-referencing, we offer a tentative assessment of the civilian-to-combatant ratio among the war's casualties, while acknowledging that many significant questions remain unresolved.

Chapter 6 shifts focus from Gaza to examine how the systemic issues previously described manifested in the practices of human rights organizations, UN agencies, and academic researchers during the alleged humanitarian crisis in Saddam Hussein's Iraq (1991–2003). We explore how a widely accepted narrative about the deaths of hundreds of thousands of Iraqi children was ultimately proven completely unfounded—a consequence of flawed methodologies. The chapter then details how, during the insurgency and sectarian conflict in post-2003 Iraq, inflated mortality estimates were repeatedly produced and broadly accepted, only

to be debunked more than a decade later. We demonstrate that the current flaws closely mirror these past failures and that systemic shortcomings have hindered the ability to learn from earlier mistakes, even when corrections were made retrospectively.

Chapter 7 examines the recurring errors made by human rights organizations in past conflicts regarding estimates of civilian versus combatant casualties. It explores why these mistakes went uncorrected and highlights the risks of relying on such sources to analyze the current war.

In our final chapter, **Chapter 8**, we conclude with a methodological reflection on the repeated serious failures of well-established, experienced researchers and organizations. We propose a more rigorous approach, both in research design and in the prioritization of sources, for studying war crimes in conflict zones such as Gaza. Finally, we express concern over the growing inflation of the term “genocide”, which is increasingly applied to nearly every destructive urban conflict. Such overuse risks dulling public sensitivity to cases involving genuine attempts to destroy groups in whole or in part, to the detriment of humanity.

We emphasize that this study is primarily focused on verifiable facts, not their legal or moral interpretation. This focus does not reflect insensitivity to moral or legal concerns, nor does it diminish the profound suffering endured by Gaza’s residents. Rather, we believe that any legal, moral, or political discussion must be grounded first and foremost in verified facts or credible assessments. Reversing this order, as we will show in Chapters 6–8, leads to confusion rather than clarity. While we occasionally reference legal concepts such as intentionality, proportionality, distinction, and siege, these are not the primary focus of our work, which we consider valid and important irrespective of moral or legal interpretations.

Each chapter begins with a summary to assist readers with limited time. Our study is modular: those interested in specific topics, such as starvation (Chapter 1), massacres and intentional killing (Chapter 3), disproportionate strikes (Chapter 4), or casualty figures (Chapter 5), can go directly to the relevant chapters. However, we believe that understanding urban warfare and Hamas’s defense strategy (Chapter 2) is crucial for fully grasping the subsequent chapters on IDF combat operations in Gaza.

In the appendixes we will deal in depth with questions of UN and IPC truck counting (Appendix I), UNRWA retroactive corrections (Appendix II), water supply to Gaza during the war (Appendix III), a medical opinion regarding the statement by the PAMA volunteer physicians (Appendix IV), dated GMOH casualty counts (Appendix V), and the flawed methodology of Iraq War family surveys, as well as lessons applicable to the Gaza War (Appendix VI). Appendix 1 was published in late December 2025, the other appendixes will appear in the near future.

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Chapter One: The Question of Starvation

Summary

When the International Criminal Court (ICC) issued arrest warrants against Prime Minister Benjamin Netanyahu and then-Defense Minister Yoav Gallant, one of the primary charges was the intentional starvation of the Gazan population. The following chapter examines the apocalyptic predictions of starvation and famine in Gaza from October 2023 through March 2025—predictions that were ultimately shown to be false and misleading.

Not only did Israel not intentionally starve Gaza during this period, but it actually facilitated the entry of significantly more food than before the war, even when accounting for the destruction of local production. The chapter analyzes the factors underlying this failure in reporting, highlighting the key errors and data distortions propagated by various UN agencies, human rights organizations, media outlets, and scholars within the humanitarian ecosystem. It also warns against continued reliance on similarly flawed methodologies when assessing current and future crises.

The United Nations IPC/FRC, a respected agency responsible for famine assessment, projected a cumulative total exceeding 78,582 hunger-related deaths in Gaza by January 17, 2025. This estimate was echoed by numerous UN agencies, human rights organizations, and media outlets. Fortunately, these predicted deaths never materialized, as confirmed by data from the Gaza Ministry of Health (GMOH) and the January 2025 family survey conducted by Spagat and Shikaki.

Advocates of the IPC's reliability—and of UN humanitarian bodies and NGOs more broadly—have argued that the predicted outcome was averted solely due to timely humanitarian interventions prompted by the IPC's alarming reports. However, those reports were based on assessments of the one-month period preceding each of the four IPC releases during that time. Had the assessments been accurate, they would have implied approximately 30,000 starvation-related deaths over those four months alone. These deaths, too, never materialized.

Naturally, the IPC's catastrophic classifications in 2023–2024 were not issued in a vacuum. They were based primarily on food consumption surveys and medical measurements of Gazan children (such as upper arm circumference), all mediated by local Gazan intermediaries. However, the interpretation of these findings—and the conclusion that they signaled imminent famine—took place in a context shaped by the self-acknowledged absence of indirect mortality data, in clear violation of IPC protocol.

In fact, the famine assessment rested on four false assumptions.

The first false assumption was that Gaza was teetering on the edge of humanitarian catastrophe even before the war, with the supposed decline in aid entry and the hardships of the war pushing it over the brink. In fact, Gazan life expectancy rose and infant mortality declined prior to the war more rapidly than they did in the West Bank, let alone Israel. Furthermore, between 2008 and 2014—during a period when Israel imposed strict limitations on aid entering Gaza—an average of only 127 trucks per day crossed into the Strip, yet no significant impact on mortality or birth rates was observed.

The second false assumption concerns the comparison between the volume of food entering Gaza before the war and that during the conflict. Early in the war, UN agencies claimed that 500 trucks—of which 150 carried food—entered Gaza daily prior to the conflict. This figure of 500 trucks became a consistent benchmark against which wartime truck entries were measured. The UN arrived at this number through a somewhat complex calculation, roughly based on the average number of trucks entering Gaza per working day before the war.

However, what the UN—and subsequently human rights organizations and the media—actually did was to compare the number of trucks entering Gaza per working day before the war with the number entering per calendar day during the conflict, the latter being the appropriate measure for assessing wartime needs. This comparison is fundamentally flawed, akin to comparing apples and oranges. Furthermore, by repeatedly contrasting the pre-war figure of 500 trucks per working day—of which only 22.5% carried food and 50% carried cement, which is irrelevant to immediate wartime humanitarian needs—with the total number of aid trucks entering per day during the war, of which approximately 75% carried food—the practical effect is a more than sixfold inflation of the pre-war aid baseline (table 1, compare red box at bottom left with blue and orange boxes on bottom right).

In fact, when calculated accurately, 73 food trucks per calendar day were required to feed Gaza before the war. This figure should have served as the baseline for all wartime calculations. When one uses a fallaciously high baseline, and defines everything below that as famine conditions, it is natural that wrong projections of famine will ensue.

The third flawed assumption relates to the amount of food entering Gaza during the war. Throughout the conflict, UNRWA data consistently undercounted truck entries compared to the more accurate figures provided by the IDF's Coordination of Government Activities in the Territories (COGAT). This discrepancy intensified in May 2024, coinciding with the start of the Rafah operation.

UNRWA announced a collapse of aid levels to about 70% below the April 2024 figures, warning of an approaching humanitarian crisis. Conversely, COGAT claimed that the rate of food entry in May 2024 not only did not decline but actually increased, remaining higher than pre-war levels, on the average, until the January 2025 ceasefire.

Beginning in November 2024, UNRWA itself effectively confirmed COGAT's claims by issuing retroactive corrections to its data. In stark contrast to the proactive press briefing that accompanied UNRWA's public declaration of the May 2024 crisis, these corrections were made without any public acknowledgment, and were quietly inserted into the fine print of select documents.

Since these corrections were neither announced nor proactively promoted, they were not covered by the media. Nor was this retroactive adjustment reported in professional medical journals, which have repeatedly published predictions of famine and mass death in Gaza. Thus, the humanitarian ecosystem continues to echo news of a crisis based on inaccurate data, without regard for the fact that even those who disseminated catastrophic claims later retracted them.

The fourth false assumption was that a significant portion of Gaza's food consumption before the war came from local production—44% according to the Amnesty report—and that destruction of local production caused severe shortages contributing to developing hunger. In fact, this figure is based on a misreading of the Palestinian Central Bureau of Statistics report, which refers not to consumption but to the percentage of household expenditures in Gaza on locally produced food relative to imported food. In addition, this data does not include food distributed free of charge by UNRWA and the World Food Program (WFP), which accounts for approximately 40% of total caloric intake.

In reality, Gazan agricultural production was extremely low (as stands to reason given the small, built-up nature of the territory) and is unlikely to have contributed more than 10-12% of caloric intake in Gaza before the war.

To conclude, food supplies up to the January 17 2025 ceasefire exceeded pre-war levels. While misdistribution, Hamas's diversion of aid, and other factors undoubtedly contributed to the suffering of many Gazans—and malnutrition may have played a role in some deaths—the mass-death projections issued by the IPC, the Palestinian American Medical Association mission, and various

other sources failed to materialize. This was not a case of a grim future successfully averted, but rather of a misleading portrayal of the present.

Nonetheless, we strongly criticize Israel’s decision to block all humanitarian aid deliveries between March and late May 2025. While this measure aimed to prevent the diversion of aid to Hamas—a persistent issue within the UN distribution system, as we demonstrate with multiple pieces of evidence in this chapter—it was nonetheless misguided. Israel should not have suspended the existing distribution channels without first establishing more reliable alternatives.

A. Causality and Responsibility: Factual Foundations vs. an Interpretative Framework

We begin our analysis with the following data point: As of October 23, 2023, Israel authorized the entry of up to 100 trucks per day into Gaza, and beginning on November 24, that number was increased to an average of up to 200 trucks per day. According to UNRWA reports, from November 15, 2023, Israel imposed no daily limits on truck entry⁵. In March 2024, Israel stated it was not imposing any quantitative restrictions on entry of aid into Gaza.

However, even in the early stages of the war, the actual volume of aid entering Gaza never came close to reaching the temporary limits set by Israel. Up to March 2025, Israel repeatedly claimed that aid organizations could transfer more goods into Gaza and were not doing so due to logistical and staff difficulties, not because of restrictions imposed by Israel, and that aid was repeatedly piling up on the Gazan side of the border crossings and left uncollected for many days.⁶

Nonetheless, aid organizations claimed that not enough aid was entering the Strip and that much more was required. Carl Skau, Deputy Executive Director and Chief Operating Officer at the World Food Program (WFP), said in March 2024, "I would say that we need to double the level we have now. We are now at around 150 trucks. We need a minimum of 300 trucks a day coming in." Then he made clear that those "300 minimum" trucks were all, or primarily, food trucks: "But of course, that also in the longer run needs to be supplemented with commercial (supplies)."⁷ The interviewer duly filled in the blanks: "Before the conflict began in October, Gaza relied on 500 trucks entering daily."⁸ As we will demonstrate, the figure of 500 trucks as the prewar baseline was repeatedly cited in numerous UN, humanitarian, and media reports. In most accounts, approximately 150 of these trucks were expected to carry food.⁹

Humanitarian organizations have cited various reasons for their inability to deliver the 500 trucks of food and other items they claimed were needed daily prior to the January 17, 2025 ceasefire, despite the absence of formal Israeli restrictions. These claims ranged from overly intrusive security screening of aid trucks (trucks in which cigarettes and other contraband were regularly smuggled), the working hours of the border crossing terminals, and danger and restrictions on movement within Gaza. We find the final explanation to be the most compelling, if only because both the inspection procedures and operating hours at the border crossings remained unchanged during the ceasefire.

⁵ <https://www.barrons.com/news/israel-will-not-limit-gaza-truck-numbers-un-aid-chief-711e7f34>

⁶ <https://www.washingtonpost.com/world/2024/03/03/gaza-aid-convoy-israel-war/>

⁷ <https://www.reuters.com/world/middle-east/aid-trucks-entering-gaza-must-double-meet-basic-needs-wfp-says-2024-03-06/>

⁸ Ibid. See also, Lee Mordechai (updated to the 9.3.2025), "Witnessing the Gaza War" (pg. 28): Since the start of the war until now, usually only about 100-150 trucks (fully loaded) have entered daily, out of approximately 300 needed to meet Gaza’s humanitarian needs (mainly food and water).

⁹ See for example:

https://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/IPC_Gaza_Strip_Acute_Food_Insecurity_Feb_July2024_Special_Brief.pdf

Indeed, humanitarian organizations themselves, along with the IPC, repeatedly asserted that only a ceasefire and an end to hostilities could ensure the delivery of adequate humanitarian aid, defining “adequate” as 500 trucks per day. The military-political implication of this position—an unprecedented development in the context of International Humanitarian Law (IHL)—is that sustained military operations against an enemy embedded within an urban environment would no longer be considered permissible from a humanitarian standpoint.

In this paper, we do not take a moral or legal position on this view. Nonetheless, it is important to acknowledge that this reflects the prevailing stance of the humanitarian community with respect to Gaza—and more broadly. It is a position that effectively grants functional immunity to armed forces operating from within civilian, or more generally urban, environments where civilian evacuation is obstructed. As we will explain in Chapters 2 and 4, this stance is closely linked to opposition to any form of civilian evacuation aimed at separating noncombatants from combatants, even temporarily.

However, irrespective of the moral or legal validity of this position, humanitarian organizations based their assessments of the aid required to avert mass starvation in Gaza on the assumption that the Strip needed the purported prewar level of 500 truckloads per day.

In the following section, and throughout much of this chapter, we aim to establish—based on factual data—how much food actually entered the Gaza Strip prior to the war, how much entered during the war, and how these figures compare to the numbers promoted in real time by the humanitarian and human rights community.

B. 500 Daily Trucks: Comparing Apples and Cement

UN data indicate that in 2022, a total of 106,449 trucks entered Gaza (74,096 via Kerem Shalom and 32,353 from Rafah), averaging 291 trucks per day.¹⁰ Of these, half carried construction materials. Only 73 trucks, not 150, carried food (see Figure 1).

Data from the IDF’s Coordinator of Government Activities in the Territories (COGAT) shows that in January 2024, the average was 109 food trucks per day; in February, 77; and in March, 119¹¹—values very close to those currently displayed on the OCHA dashboard¹² (96.5, 66.3, and 117 trucks per day, respectively). In other words, at the very moment the WFP was insisting that significantly more aid was urgently needed to restore pre-war conditions, the actual volume of food entering the Gaza Strip exceeded pre-war levels.

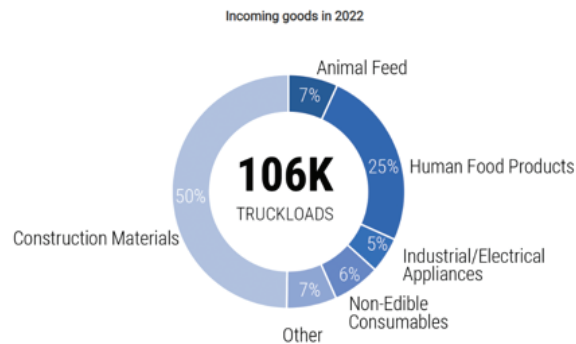


Figure 1: Number and contents of trucks entering Gaza in 2022¹³

Reprinted 2022. United Nations © OCHA (Office for the Coordination of Humanitarian Affairs). With the permission of the United Nations, from: <https://www.ochaopt.org/content/movement-in-and-out-gaza-2022>

¹⁰ https://www.un.org/unispal/wp-content/uploads/2023/02/OCHAGAZAAM_220223.pdf

¹¹ <https://gaza-aid-data.gov.il/main/>

¹² <https://www.ochaopt.org/data/crossings>

¹³ <https://www.ochaopt.org/content/movement-and-out-gaza-2022>

However, the claims concerning the entry of 500 daily trucks to Gaza prior to the war are not unique to the WFP. HRW¹⁴, Amnesty¹⁵, and various media sources claimed the entry of 500 trucks per day before the start of the war. Their sources can be traced back to a speech delivered by UN Secretary-General António Guterres on October 27, 2023, in which he stated:

*About 500 trucks per day were crossing into Gaza before the hostilities began.*¹⁶

This claim was echoed not only by the media and human rights organizations, but by the Integrated Food Security Phase Classification (IPC) and Famine Review Committee (FRC), the professional UN body charged with quantitatively assessing the dangers of famine:

*From a pre-escalation average of 500 trucks a day of which 150 were carrying food, in the period between 7 October 2023 to 24 February 2024, only 90 trucks per day, of which only 60 were carrying food, entered the Gaza Strip.*¹⁷

Likewise, the earlier Famine Review of the December 2023 IPC analysis team report stated that:

*Of the 150-180 **food trucks** typically entering **daily** pre-escalation, only about 30 food trucks have entered the Gaza Strip on a **daily basis** since the end of the humanitarian pause on 30 November 2023.*¹⁸

The December IPC analysis report did, however, include a truncated figure whose title—at odds with the report’s main text—offers a clue as to how this misleading comparison was constructed:

Daily trucks (estimated around 30% food), (OCHA, 14.12.23)

***INCOMING TRUCKLOADS 500 Trucks** including fuel pre-crisis average per working day in 2023*¹⁹

However, it is methodologically flawed to compare the number of trucks entering Gaza per working day before the war to the number entering per calendar day during the war. If the goal is to assess Gaza’s daily food needs during wartime, such a comparison is akin to comparing apples and oranges. By frequently contrasting the pre-war figure of 500 trucks per working day—of which only 22.5% carried food—with the total number of aid trucks entering per day during the war—of which approximately 75% carried food—the practical effect is a more than sixfold inflation of the pre-war aid baseline (Table 1; compare red box at bottom left with blue and orange boxes on bottom right).

¹⁴ <https://www.hrw.org/news/2023/12/18/israel-starvation-used-weapon-war-gaza>

¹⁵ <https://www.amnesty.org/en/latest/news/2024/02/israel-defying-icj-ruling-to-prevent-genocide-by-failing-to-allow-adequate-humanitarian-aid-to-reach-gaza/>

¹⁶ <https://press.un.org/en/2023/sgsm22010.doc.htm>

¹⁷ https://www.un.org/unispal/wp-content/uploads/2024/03/IPC_Gaza_Strip_Acute_Food_Insecurity_Feb_July2024_Special_Brief.pdf

¹⁸ https://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/IPC_Famine_Review_Report_Gaza.pdf

p.5

¹⁹

https://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/IPC_Gaza_Acute_Food_Insecurity_Dec2023Feb2024.pdf

	All + Fuel	All	Non-food	Construction	Non-food without construction	Food + animal feed	Human food	Human food after animal feed conversion
Total		106449	71148	54000	17148	35301	27000	
"per working day"	453	408	273	207	66	135	104	
per all days	324	292	195	148	47	97	73	78
Total		87704	60270	45000	15270	27434	21000	
"per working day"	496	451	310	232	79	141	108	
per all days	355	322	222	165	56	101	76	81
Total		119278	82707	62000	20707	36571	27884	
"per working day"	503	458	317	238	79	140	107	
per all days	354	327	227	170	57	100	76	81

Table 1: A reconstruction of the IPC definition of “500 trucks, including fuel trucks, per working day”

Following the IPC report of March 2024 and COGAT’s rejection of its figures, the claim of 500 daily trucks quietly disappeared from more professional sources, including the IPC itself—yet without any formal correction. Instead, various organizations began to reference, in vague terms, the number of trucks that had entered Gaza prior to the war, thereby avoiding any explicit acknowledgment of error. For example, Amnesty International cited the figure of 500 trucks per day without noticing that it is in fact a calculation per working day. It did so in February 2024²⁰ and again in April 2024²¹, contrasting it with the number of trucks that entered Gaza daily during the war:

Yet, in the three weeks following the ICJ order, the number of trucks entering Gaza decreased by about a third, from an average of 146 a day in the three weeks prior, to an average of 105 a day over the subsequent three weeks. Before October 7, on average, about 500 trucks entered Gaza every day, carrying aid and commercial goods, including food, water, animal fodder, medical supplies, and fuel. Even that quantity fell far short of meeting people’s needs.

It should be emphasized that the data referring to truck entries **during** the war was based on UNRWA data (partial, and with retroactive corrections) calculated by dividing the number of trucks entering during a defined period over the number of days in that period.

However, in May 2024, the wording used by Amnesty International to describe pre-war truck entries was changed (emphasis added):

*The pre-crisis average **per working day** of trucks entering Gaza was 500, including fuel.*²²

²⁰ <https://www.amnesty.org/en/latest/news/2024/02/israel-defying-icj-ruling-to-prevent-genocide-by-failing-to-allow-adequate-humanitarian-aid-to-reach-gaza/>

²¹ <https://www.amnestyusa.org/wp-content/uploads/2024/04/4.29.2024-NSM-20-AIUSA-submission-re-Israel.pdf> page 16

²² <https://www.amnesty.org/en/latest/news/2024/05/new-crossing-points-and-floating-dock-are-cosmetic-changes-as-humanitarian-access-disintegrates-in-gaza-warn-aid-agencies/>^{22 22}
<https://www.amnesty.org/en/latest/news/2024/02/israel-defying-icj-ruling-to-prevent-genocide-by-failing-to-allow-adequate-humanitarian-aid-to-reach-gaza/>

In Amnesty’s June 2024 report, all reference to the 500 daily trucks before the war had been omitted. In any case, the subtle and unofficial correction of Amnesty’s and other organizations’ claims went unnoticed. Even at that late date in the war (April 2024), media outlets continued to claim that 500 trucks entered Gaza daily before the war.

Thus, the BBC, citing the UN on the eve of the January 15 ceasefire, made no use of the “working day” formulation.

For context: Before 7 October attack, 500 aid trucks entered Gaza every day, according to the UN.²³

Likewise the *Washington Post*, following the January 17 ceasefire, comparing the daily entrance of trucks during the war to 500 trucks per day prior to the war:

*At several points during the 15-month conflict, aid slowed to just a single-digit trickle of trucks **each day**, down from **an average of 500** that entered **daily** before the war.²⁴*

CNN made clear that its understanding of the 500 trucks a day figure was not based on “working days” by calculating that 500 trucks a day were equivalent to 15,000 a month:

*Before the war, an average of **500 trucks a day** – around **15,000 trucks a month** – containing aid and commercial goods entered Gaza per month.²⁵*

The Guardian insisted that the 500-600 trucks a day that entered the Gaza Strip during the January 2025 ceasefire were insufficient, because that was merely equivalent to the amount of aid that entered the Strip prior to the war and did not account for lost agricultural production:

Still, provisions under the deal are far from enough. Before the war, when Gaza had a functioning economy and farms supplying fresh produce, about 500 trucks entered daily. Over 15 months of fighting, shipments never approached that level.²⁶

To be sure, this was not merely a case of the UN being misunderstood, for at no point was the “working days” formulation consistently adopted in UN press releases. On the contrary, as late as April 2025, the wording of a UN press release appeared to suggest not only that 500 trucks entered Gaza daily prior to the war, but also that these trucks primarily carried food.

*Before the war erupted in October 2023, Gazans relied on **500 trucks a day** to deliver the food and other basic goods that they needed.²⁷*

The World Health Organization asserted that 500 to 600 trucks per day represented aid levels comparable to those reaching Gaza before the war, while relying on UNRWA’s undercount to highlight the perceived shortfall.

The target is to get between 500 and 600 trucks in per day over the coming weeks,” said Dr Rik Peepkorn, [WHO](#) representative in the occupied Palestinian territories (OPT).

²³ <https://www.bbc.com/news/live/c3rwqpj70ert>

²⁴ <https://www.washingtonpost.com/world/2025/01/23/gaza-aid-surge-ceasefire/>

²⁵ <https://edition.cnn.com/2025/01/22/middleeast/gaza-war-ceasefire-snapshot-dg-intl/index.html>

²⁶ <https://www.theguardian.com/world/2025/jan/17/aid-increase-ceasefire-deal-admission-israel-could-have-done-more-experts-say>

²⁷ <https://news.un.org/en/story/2025/04/1162696>

This would represent “a huge increase” from the 40 to 50 lorries reaching Gaza in recent months and be similar to the level of aid reaching Gaza before war erupted on 7 October 2023, drastically reducing relief deliveries.²⁸

To clarify, in December 2024, a total of 100,000 tons of aid entered Gaza in 5,065 trucks—an average of 165 trucks per day—of which 3,328, or approximately 110 per day, were food trucks, according to COGAT.²⁹

This figure is more than three times the amount cited by the WHO representative—assuming he was not further compounding the error by comparing wartime food trucks alone to the total number of pre-war trucks. If he was, he was far from the only humanitarian actor to do so. In any case, as we will discuss in the following sections, UNRWA has consistently undercounted aid deliveries in real time, only to revise its figures retroactively several months later. In this instance, UNRWA appears to be lagging once again: its updated data indicate that 2,861 trucks entered Gaza in December 2024, an average of 93 per day, of which 2,259 were food trucks, or approximately 73 per day.³⁰

To be sure, UNRWA does occasionally employ the working day formulation in regard to the 500 trucks. When it does, however, the comparison is inevitably to wartime trucks **per calendar day**. In the citation below the dishonest comparison is all the more glaring:

According to [OCHA](#), between 1 and 16 November, 1,140 humanitarian trucks were permitted to enter the Gaza Strip. This represents a daily average of only 71 humanitarian trucks, well below the pre-crisis average of 500 trucks per working day.

Between 1 and 16 November there were ten working days. Thus the proper calculation would be the entry of 114 trucks per **working day**. We note once again that this is an undercount. According to COGAT data, the actual entry of trucks on those dates was 1,459; according to UNRWA/OCHA’s retroactively corrected data, the number of trucks was 1,294.³¹ However, when measured against the inflated—and ultimately fictitious—benchmark of 500 trucks per day, or 8,000 over 16 days, such corrections may appear insignificant. They are not. Not for a large-scale humanitarian operation that is funded by, and accountable to, the taxpayers who sustain it. And certainly not for the civilians who rely on the aid that actually arrives—and on transparent reporting of its delivery.

In fact, the UN’s inconsistent and misleading figures have caused confusion not only in the media but also among academic researchers focused on documenting evidence of genocide in Gaza. For instance, as late as May 2025, Lee Mordechai’s “testimony” document included a footnote attempting to reconcile the various explanations offered by the UN for the 500-truck figure.

For comparison, before the war, about 500 trucks entered Gaza daily with various supplies — approximately 200 trucks of fuel and 300 trucks with different commodities and food. In 2022, about 73 trucks entered daily with food (24 trucks carried other items like animals and animal feed).³²

To reiterate, the myth of 500 daily trucks had a substantial impact on public opinion, leading many to believe that the amount of food Israel permitted into Gaza fell far short of pre-war levels. In fact, the opposite was true.

A straightforward clarification of the facts—or at the very least, an open acknowledgment of error in retrospect—would have required minimal effort from the authorities and researchers involved. Yet this was not done. This pattern exemplifies what we refer to as the “humanitarian bias”: a flawed assumption that

²⁸ <https://news.un.org/en/story/2025/01/1159116>

²⁹ <https://gaza-aid-data.gov.il/main/>

³⁰ <https://www.ochaopt.org/data/crossings>

³¹ <https://www.ochaopt.org/data/crossings>

³² 246. לי מרדכי, “עדות על מלחמת הרבות ברזל”, (מעודכן ל-9.3.2025), עמ’ 28, הערה מס’ 246.

supports a catastrophic narrative is quickly elevated to the status of established fact. Any attempt to question it is then framed as a display of insensitivity toward victims. Efforts to conduct factual or quantitative analysis are dismissed as “petty accounting” that distracts from the humanitarian emergency and the moral imperative to act. However, belief in the existence and scale of a crisis depends precisely on the factual reliability of these often unexamined—and frequently inaccurate—assumptions. Notably, our inquiries to humanitarian organizations that cited these figures, asking them to identify their sources, have gone unanswered.

As noted earlier, many Western media outlets continue to cite the figure of 500 daily trucks prior to the war, even today—despite the fact that human rights organizations have quietly withdrawn this claim when confronted with the actual data.³³ Here too, a characteristic dynamic is observed: false claims continue to make waves and shape the narrative long after their silent correction by their propagators. We will revisit this dynamic again in Chapter 6.

Regardless of the shortcomings of UN agencies, human rights organizations, and the researchers and journalists who rely on them, it is clear that the aid organizations’ target of 500 daily trucks was never grounded in professional assessments of wartime food consumption needs, nor in actual pre-war food import data. In our view, this figure reflects a humanitarian impulse to maximize the number of trucks entering Gaza, even at the cost of fostering an unfounded sense of emergency. Indeed, this sense of emergency was often seen as advantageous: by sustaining the perception of a continuous crisis, it helped generate pressure for international intervention to bring the conflict to an end. Given that it was logistically impossible for Gazan drivers to distribute 500 truckloads of aid per day under the constraints and dangers of intensive fighting, humanitarian organizations presented a ceasefire as the only viable means of ensuring effective aid delivery.

Thus, the IPC December report claimed that: *The actions needed to prevent Famine require an **immediate political decision for a ceasefire** together with a significant and immediate increase in humanitarian and commercial access to the entire population of Gaza.*³⁴

C. Apocalyptic forecasts fueled by phantom trucks

The March 2024 IPC report went on to serve as the foundation for numerous apocalyptic projections. Although it was cited as the basis for a famine warning by FEWS NET, this use was “not endorsed” by the FRC. Officially declaring an entire region to be experiencing famine, as opposed to projecting that it may do so, requires meeting the IPC Phase 5 threshold for non-violent mortality, which must be confirmed through representative sampling of the affected population.

³³ <https://www.washingtonpost.com/world/2025/01/14/israel-gaza-ceasefire-deal-negotiations-hamas-hostages/>; <https://www.nytimes.com/2025/01/24/world/middleeast/gaza-israel-cease-fire-aid.html>; <https://www.theguardian.com/world/live/2025/jan/19/israel-gaza-ceasefire-live-news-updates?filterKeyEvents=false&page=with%3Ablock-678cd9cf8f08fd7ce2cdcb5d>; https://www.lemonde.fr/en/international/article/2025/01/06/in-gaza-a-web-of-obstacles-consistently-blocks-humanitarian-aid-flow_6736735_4.html

³⁴ <https://www.ipcinfo.org/ipcinfo-website/alerts-archive/issue-97/en/>

However, IPC protocols require that even projections of IPC Phase 5, and determination of actual occurrence of IPC Phase 4, require surveys showing mortality **approaching** these thresholds (Figure 2):

		Phase 1 None/Minimal	Phase 2 Stressed	Phase 3 Crisis	Phase 4 Emergency	Phase 5 Catastrophe/ Famine
First-level outcome	Food consumption (focus on energy intake)	Adequate	Minimally adequate	Moderately inadequate	Very inadequate	Extremely inadequate
	Livelihood change (assets and strategies)	Sustainable	Stressed	Accelerated depletion	Extreme depletion	Near collapse of strategies and assets
Second-level outcome	Nutritional status	Minimal	Alert	Serious	Critical	Extreme critical
	Mortality	CDR: <0.5 / 10,000 / day	CDR: <0.5 / 10,000 / day	CDR: 0.5 - 0.99 / 10,000 / day	CDR: 1 - 1.99 / 10,000 / day or >2 x reference	CDR: >2 / 10,000 / day
Contributing factors	Food availability, access utilization and stability	Adequate	Borderline adequate	Inadequate	Very inadequate	Extremely inadequate
	Hazards and vulnerability	None or minimal effects	Stressed livelihoods and food consumption	Results in assets and food losses	Results in large food assets and food losses	Results in near complete collapse of livelihood assets

Figure 2: IPC mortality thresholds and guidelines for IPC phase assessment and projection³⁵

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We note that the IPC protocols especially prohibit relying on violent mortality as an indicator of non-violent mortality.³⁶

The March IPC analysis stated that:

*The analysis could not benefit from representative evidence of non-trauma mortality as intended by IPC Protocols (Crude Death Rate and Under Five Death Rate)*³⁷

But nonetheless concluded that:

*The FRC expects the **upward trend in non-trauma mortality to accelerate** and for **all Famine thresholds to be passed imminently**... All evidence points towards a major acceleration of deaths and malnutrition... The FRC concludes that **Famine is imminent unless there is an immediate cessation of hostilities**.*

³⁵ https://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/IPC_Famine_Guidelines_Nov16.pdf

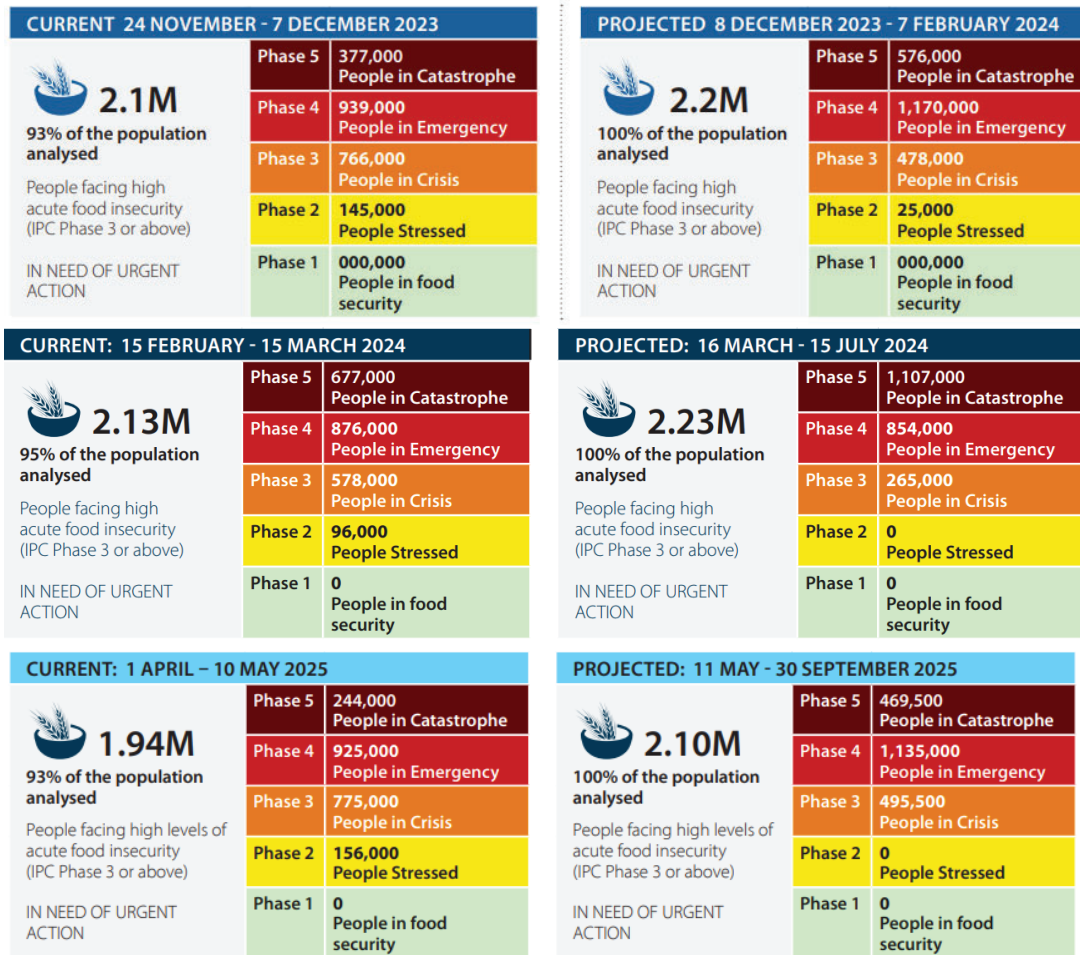
³⁶ Ibid

³⁷ [IPC Gaza Strip Acute Food Insecurity Feb July2024 Special Brief.pdf](#)

There was, of course, no immediate cessation of hostilities. Indeed, they would continue for another 10 months prior to the January 17 ceasefire.

Throughout 2024, the IPC consistently published reports indicating that widespread hunger-related mortality had occurred during the month preceding each report (Figure 3, left), while simultaneously forecasting imminent mass death (Figure 3, right). **However, these claims are not supported by the Gaza Ministry of Health’s own reports, nor by the household survey conducted by Spagat and Shikaki, released in January 2025.**³⁸

While questions remain regarding the methodology and findings of Spagat and Shikaki’s survey, the data—assuming the responses are honest and representative—indicate that non-violent, non-accidental child mortality remains roughly at pre-war levels. To reiterate: had the IPC’s report been accurate and grounded in real data, this mortality would have been observable. No remedial measures could have reversed deaths the IPC claimed were already occurring.



³⁸ <https://www.medrxiv.org/content/10.1101/2025.06.19.25329797v3>

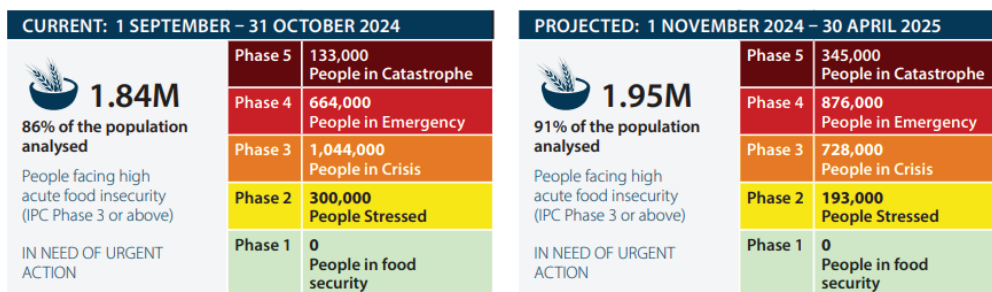


Figure 3: IPC current assessment (left) and projections (right) of famine between December 2023 to April 2025³⁹

The failure of the projected mortality estimations—and even the IPC’s own assessments of the current situation in each report—to materialize over 15 months of urban combat is unsurprising, given that the IPC disregarded its established protocols and criteria for determining famine conditions, both at the regional and household levels.

While the updated IPC protocols do not require conclusive proof of a mortality rate of 2 per 10,000 per day to declare IPC Phase 5 at the household level, they do require reference to credible evidence that mortality is approaching this threshold. The same standard applies to the designation of IPC Phase 4 at the area level. To be sure, there is significant institutional pressure to relax or lower these thresholds—but in practice, this has occurred only in the case of Gaza, as we will explain in the next section. According to IPC standards:

At least three pieces of direct and reliable evidence are needed, one evidence each for acute malnutrition, mortality, and food consumption or livelihood change, though they may not be above Famine threshold levels.

*However, if reliable direct evidence is available for **mortality and acute malnutrition** but not for food consumption or livelihood change (FC&LC) outcomes, a classification of Phase 4! can still be done provided that analysts document the analytical process of inference from at least 4 pieces of somewhat reliable evidence to classify an area where Famine has been or will likely be avoided by Humanitarian Assistance (IPC Phase 4!). The indicators do not need to be **above** Famine Levels for current classification but **should be close to these thresholds**.⁴⁰*

Notably, even if one considers only the current assessments performed for each IPC report, minimum mortality compatible with their assessments runs up to 21,980 individuals over 155 days.

Had the IPC’s forecasts and current assessments materialized, 78,582 Gazans would have died of starvation by January 17, 2025—not including deaths from traumatic causes (see Table 2, Figure 2). It is important to emphasize that a comparison between the December 2023-February 2024 forecast and the March-July 2024 forecast, as well as between the June-September 2024 and the November 2024-April 2025 forecasts, implicitly assumes that the earlier projections had come to pass when in fact they had not.

³⁹ <https://www.ipcinfo.org/ipc-country-analysis/details-map/en/c/1157065>

⁴⁰ https://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/IPC_Famine_Guidelines_Nov16.pdf

		phase			Inferred Mortality	Total inferred mortality
		5	4	3		
Current	24 Nov–7 Dec 2023	377,000	939,000	766,000	2906	27,480
	15 Feb–15 Mar 2024	676,636	875,618	577,963	7302	
	1 May–15 Jun 2024	342,719	642,864	1,148,301	8561	
	1 Sep–31 Oct 2024 (grand total)	132,987	663,721	1,044,353	8711	
Projected	8 Dec 2023–7 Feb 2024	576,000	1,170,000	478,000	18951	58832
	16 Mar–15 Jul 2024 (narrative, Gaza Strip total)	1,107,000	854,000	265,000	14722	
	16 Jun–30 Sep 2024 (grand total)	495,291	745,437	913,156	10305	
	1 Nov 2024–30 Apr 2025 (Jan 17 cutoff)	344,839	875,573	727,681	14854	
						86,312

Table 2: Inferred Projected mortality according to IPC forecasts

Another disconcerting feature of these projections is that they invariably project a worsening situation compared to their current assessment—even when the projection is updated to be less severe than the previous projection, and even when the actual food supply situation has improved (Table 3 below) between the month previously assessed to the trend observed during that time. Of course, part of the reason for this is the reliance of the IPC on UNRWA food supply figures, which, as we will see, are inevitably undercounted and then retroactively revised upwards a few months later. This almost certainly played a major role in the May 2024 projection, which was concurrent with the Rafah invasion and UNRWA’s declaration that a 70% drop in aid had occurred.

However, we believe the main factor at play here is the humanitarian mindset. Describing a humanitarian situation that is actually improving is very difficult for a humanitarian organization to do if it implies a lack of urgency to end an armed conflict—all the more so when the armed conflict is judged incompatible with providing desired humanitarian standards to civilians trapped in the conflict. Virtue, in this case as in others, comes at the expense of accuracy, reliability and professionalism.

Month	IPC Phase 5 current	IPC Phase 5 projections	IPC Phase 5 projections	COGAT food truck entry	Food trucks per day	Food trucks compared to pre-war

		(December, March)	(May, September)			
Nov-23	377			1231	42.4	0.58
Dec-23	377	576		1798	58.0	0.79
Jan-24		576		3364	108.5	1.49
Feb-24	677	576		2120	75.7	1.04
Mar-24	677	1107		3668	118.3	1.62
Apr-24	244	1107		4842	161.4	2.21
May-24	244	1107	469	5184	167.2	2.29
Jun-24		1107	469	4032	134.4	1.84
Jul-24		1107	469	4629	149.3	2.05
Aug-24			469	3857	124.4	1.70
Sep-24	133		469	3477	115.9	1.59
Oct-24	133			1107	35.7	0.49
Nov-24			645	1557	53.7	0.74
Dec-24			645	3228	104.1	1.43

Table 3: Lack of correlation between upward trend in food supply during assessment periods and IPC Phase 5 projections and current assessment

Based on the IPC report, the Scenario-Based Health Impact Projections published in February 2024 foresaw significant excess non-traumatic mortality—despite the fact that by that point, food supply to Gaza had already returned to pre-war levels. The projections estimated 6,550 excess deaths in the event of an immediate ceasefire; 58,260 in the absence of a ceasefire; and 74,290 in the event of an escalation—such as the incursion into Rafah that did occur in May—over the six-month period ending in August 2024.⁴¹ It should be noted that this estimate recognized the presence of substantial food reserves at the outset of the war and did not presume significant agricultural activity in Gaza prior to the conflict.⁴²

An opinion piece published in *Lancet* provided an even less realistic estimate: an expected excess mortality of 186,000 people in June 2024, assuming (optimistically) that the sides would reach an immediate ceasefire.⁴³ This opinion piece was widely cited across various media outlets.⁴⁴ The Special Rapporteur on Human Rights in the occupied Palestinian territories inflated this unsubstantiated figure further, claiming that 15-20% of Gaza's population (i.e., up to 440,000 people, based on a pre-war population of 2.2 million) were expected to die by the end of 2024:

⁴¹ https://gaza-projections.org/gaza_projections_report.pdf

⁴² https://gaza-projections.org/docs/report3/wartime_food_availability_in_the_gaza_strip.pdf

⁴³ [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(24\)01169-3/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(24)01169-3/fulltext)

⁴⁴ <https://www.theguardian.com/world/article/2024/jul/12/gaza-death-toll-indirect-casualties>,
<https://www.middleeasteye.net/news/gaza-death-toll-could-exceed-186000-lancet-warns>,
<https://www.france24.com/en/middle-east/20240711-more-than-186-000-dead-in-gaza-how-credible-are-the-estimates-published-on-the-lancet>,
<https://www.aljazeera.com/news/2024/7/8/gaza-toll-could-exceed-186000-lancet-study-says>

The range of presumable direct and indirect deaths could be between 15 and 20% of the population already by the end of this year... ”⁴⁵

Thus, the 500-truck figure—born of a flawed comparison between pre-war and wartime data—completed its cyclical journey of misquotation. Originating with Guterres’s careless statement and perpetuated by the UN’s vague and inconsistent references, it circulated through the ecosystem of human rights organizations and media outlets, reinforcing a catastrophic narrative. This narrative shaped the analytical environment within the professional bodies responsible for issuing famine alerts, influencing how other data were assessed. From that point onward, each report fueled increasingly apocalyptic projections—projections that were, in turn, accepted by the UN, the very source of the erroneous premise on which they were based.

D. Methodological Discrepancy in IPC Projections Compared to Other Humanitarian Crises

It is important to emphasize that the IPC itself did not explicitly or directly quantify non-traumatic mortality matching the criteria of IPC-4, let alone IPC-5, in any of its reports concerning Gaza. For comparison, in its report on Yemen during the same period (November 2023 to October 2024), the IPC explicitly stated that "low" mortality rates of “**only**” 1.03 children per 10,000 per day ruled out the inclusion of certain regions in Yemen within the IPC acute food insecurity emergency classification IPC-4 and above:

Nevertheless, the crude and under-five mortality was very low, at 0.28 and 1.03 per 10,000 per day respectively, which is below the threshold for emergency IPC classification. ⁴⁶

In fact, throughout Yemen’s civil war from 2017 to 2024, no official declaration of an ongoing IPC Phase 5 emergency was made in wide regions despite the “man-made” famine caused by the conflict and the Saudi blockade. The first IPC Phase 5 projection estimated 238,000 people affected for December 2018-January 2019, and a subsequent projection estimated 47,000 people for January-May 2021. It is estimated that starvation and disease have caused approximately 220,000 deaths in Yemen, including 85,000 children.^{47 48}

Thus, in 2023 and 2025, Gaza is the only location marked in the IPC map as being in an IPC-5 emergency. In 2024, Sudan was also included, with the IPC suggesting that parts of its provinces, especially Darfur, may be at IPC-5 risk (Figure 4).

<https://x.com/FranceskAlbs/status/1832060081245929810?lang=en>. The full X post is: "earing the health experts, I am starting to think with horror that if it's not stopped, Israel's assault could end up exterminating almost the entire population in Gaza over the next couple of years. The range of presumable direct and indirect deaths could be between 15 and 20% of the population already by the end of this year,

⁴⁶

<https://www.unicef.org/yemen/media/10201/file/IPC%20ACUTE%20MALNUTRITION%20ANALYSIS.pdf>
<https://www.unicef.org/yemen/media/10201/file/IPC%20ACUTE%20MALNUTRITION%20ANALYSIS.pdf>

⁴⁷ <https://www.bbc.com/news/world-middle-east-46261983>

⁴⁸ <https://www.savethechildren.net/news/yemen-85000-children-may-have-died-starvation-start-war>



Figure 4: Areas designated as emergency IPC-5 famine zones⁴⁹

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<https://www.ipcinfo.org/policy-privacy/website-ipcinfo>

However, the IPC estimated that approximately 500,000 to 600,000 Sudanese were expected to be in this emergency state in 2024 (Figure 5). The mortality rates that prompted the IPC to declare this level of risk were reported at 1.9 deaths per 10,000 people per day in Zamzam camp in January 2024, six months prior to the emergency declaration, based on a statistically validated study conducted by MSF.⁵⁰

In contrast, a far larger number of Gazans have been declared at risk despite the absence of comparable studies or observations of non-trauma-related mortality. By December 2024, the IPC had verified mortality rates of 1.07 in West Darfur and 1.24 in Central Darfur. SMART surveys in North Darfur also showed CDR compatible with IPC phase 4⁵¹. Unlike Gaza, there have been no updates on Sudan in IPC reports since that time (as of April 2025). Meanwhile, a study by Daa'b and Abu Karoha estimates non-traumatic mortality of 31,000 people in Khartoum alone—which is classified as only IPC Phase 3.⁵²

According to an unofficial report by the Sudanese Medical Association, 522,000 children died of hunger during the civil war.⁵³ The WFP has been unable to deliver aid to the Zamzam camp between October 2024 and April 2025.⁵⁴

⁴⁹ <https://www.ipcinfo.org/analysis-country-ipc/tool-mapping-ipc/>

⁵⁰

https://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/IPC_Famine_Review_Committee_Report_Sudan_July2024.pdf; On acute malnutrition and mortality, the outcome data used by the FRC came from the MSF/Epicentre assessment conducted in January 2024 in Zamzam camp.... CDR was already very close to the Famine threshold in January (1.9 deaths/10,000 people/day.) Since that time, there has been an increase in the risk factors for non-trauma mortality. With all these factors contributing to worse situation since January, and especially since April/May when violence escalated and access routes were largely blocked leading to a near collapse of the health care system, the FRC concludes that mortality has crossed Famine thresholds.

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https://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/IPC_Famine_Review_Committee_Report_Sudan_Dec2024.pdf

⁵² https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5016438

⁵³ https://sudantribune.net/article296185/#google_vignette

⁵⁴ <https://apnews.com/article/sudan-un-famine-humanitarian-conflict-government-paramilitary-79ad7023ae90b582b877e5dd5acb18e0>; <https://www.reuters.com/world/africa/un-halts-food-help-sudan-camp-warns-thousands-could-starve-2025-02-26/>

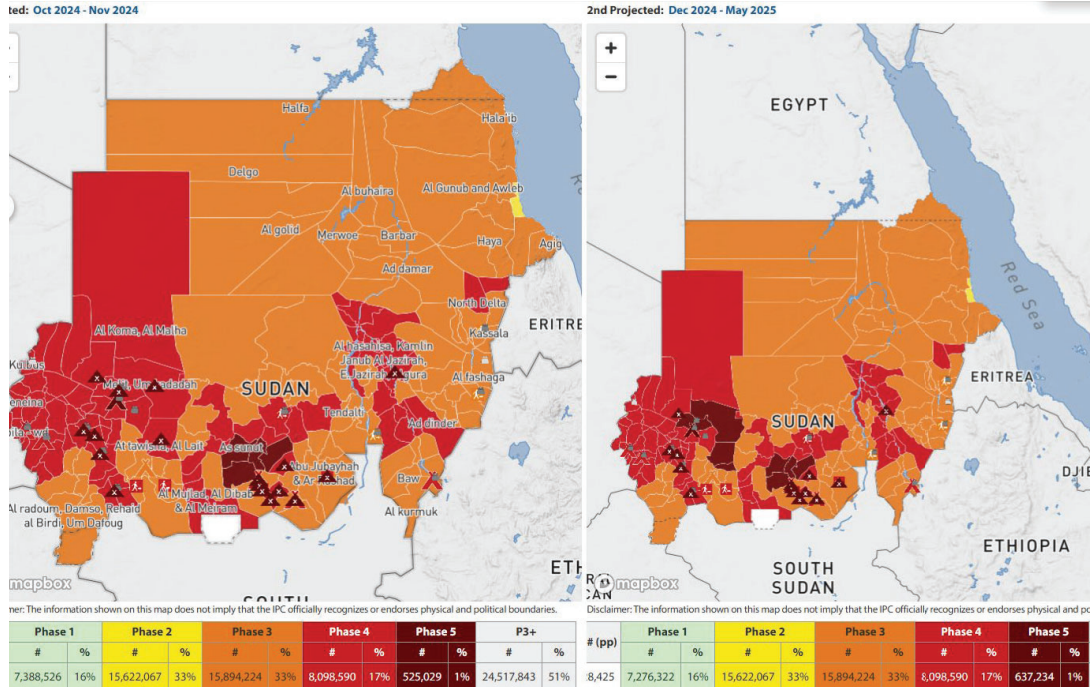


Figure 5: IPC projections for Sudan throughout 2024

© 2024 United Nations. From the Integrated Food Security Phase Classification (IPC) — Sudan Acute Food Insecurity Situation and Projections Updated, October 2024 to May 2025.

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<https://www.ipcinfo.org/en/map-details/analysis-country-ipc/1159433>

<https://www.ipcinfo.org/policy-privacy/website-ipcinfo>

To compare, a mortality rate of 1.03 deaths per 10,000 children under five—reported in Hudaydah, Yemen, over the 402 days of the Gaza conflict but not classified as an IPC-5 acute food shortage emergency—would have resulted in 11,503 deaths of Gazan children under five due to hunger or disease by January 17, 2025. Similarly, a mortality rate of 1.9 deaths per 10,000 of the total population, as reported for Zamzam camp in January 2024 before its designation as an IPC-5 zone, would have led to 163,527 Gazan deaths by the same date.

It should be noted that Gaza has a significantly more comprehensive medical system than Sudan, along with a much denser presence of UN agencies and NGOs. Conducting a mortality assessment would not have been technically difficult, especially during the January 17 to March 2, 2025 ceasefire, yet no IPC-sponsored or -recognized study was ever conducted.

During the second ceasefire from January to March 2025, there were no reports from the Gaza Ministry of Health addressing excess non-violent deaths in the Gaza Strip, despite the fact that recording and publishing such data would presumably be a high priority if excess deaths were indeed significantly higher than the reported figure of 41 Gazans of all ages (without specific dates or identification) dying from starvation.⁵⁵ In May 2025, the Gaza Ministry of Health reported an additional 57 deaths since the ceasefire—again, without specific dates or identification.⁵⁶

⁵⁵ <https://aje.io/s76tu3?update=3032811>

⁵⁶ <https://news.un.org/en/story/2025/05/1163166>

For comparison, Egypt's annual mortality rate from undernutrition is 1.1 per 100,000 people⁵⁷, which translates to approximately 29 deaths per year in Gaza. In the United States, where the rate was 0.9 per 100,000 annually until 2018, a 2022 report documented an extraordinary increase to 20,500 deaths attributed to undernutrition—equivalent to about 126 deaths in Gaza's population. The US spike was linked to changes in registration methods during the COVID-19 pandemic, as well as its social, economic, and health impacts.⁵⁸

Thus, instead of mass death from undernutrition as predicted by various organizations, the Gaza Ministry of Health reports until the food crisis of late spring- and summer 2025 do not indicate figures significantly higher than those of peacetime Egypt. Moreover, as the sharp change in data from the United States shows, an extraordinary increase in death linked to undernutrition can occur even in the absence of a food crisis, due to changes in how the medical system chooses to interpret existing findings. Even after the food crisis, more on which later below, GMOH reported only 440 such deaths for the entire war, well below the famine threshold or the numbers casually thrown around in journalistic and scholarly articles.

We refer again in this respect to Spagat and Shikaki's study,⁵⁹ whose methodological issues are examined in detail in Chapter 5. For the present discussion, it is sufficient to note that the estimated excess non-violent, non-accidental child deaths extrapolated from the sampled population fall either below the expected range of peacetime natural mortality or number only in the low hundreds—accompanied by a large standard error due to the small number of recorded non-violent child deaths in the sample. These findings do not support the presence of famine.

F. The Myth of the Prewar Humanitarian Disaster

Pursuant to the unravelling of the false claims presented above, for example in the Amnesty report, an interesting shift in emphasis can be observed. The promoters of the catastrophic narrative increasingly described the humanitarian situation in Gaza **before** the war as tragic, and even on the verge of nutritional and sanitary collapse (emphasis added):

It is important to emphasize that the OCHA data show what people in Gaza were able to import before October 2023, not what their **needs** were.⁶⁰

The number of trucks, including the number of food trucks, that enter a territory where some 2.2 million people **have been living through a 17-year-old unlawful blockade** and multiple armed conflicts is a deeply imperfect metric for assessing whether enough essential supplies, including nutritious food, are getting to the people in need.⁶¹

... For example, these data do not provide information on how many more trucks and how much **more** food and other essentials could have entered Gaza had Israel lifted **its 17-year-old unlawful blockade**...⁶²

We do not take a stance regarding the legality of the restrictions Israel imposed on the Gaza Strip after Hamas's takeover, or the extent of its control over goods entering from Egypt, or on whether these restrictions have continued since 2014. However, in the context of this issue, it is necessary to delineate their

⁵⁷ <https://www.worldlifeexpectancy.com/egypt-malnutrition>

⁵⁸ <https://pmc.ncbi.nlm.nih.gov/articles/PMC10990269/>

⁵⁹ <https://www.medrxiv.org/content/10.1101/2025.06.19.25329797v3>

⁶⁰ Amnesty International, "Israel/Occupied Palestinian Territory: 'You Feel Like You Are Subhuman: Israel's Genocide Against Palestinians in Gaza'", 5.12.2024, <https://www.amnesty.org/en/documents/mde15/8668/2024/en/>, p.172-174.

⁶¹ Ibid, p.173.

⁶² Ibid, p.176.

actual impact on the ability to sustain life in Gaza. To that end, we compared the infant mortality rate (Figure 6) and life expectancy (Figure 7) in Gaza, the West Bank, Israel, and Egypt between 1997 (prior to the Second Intifada) and 2019:

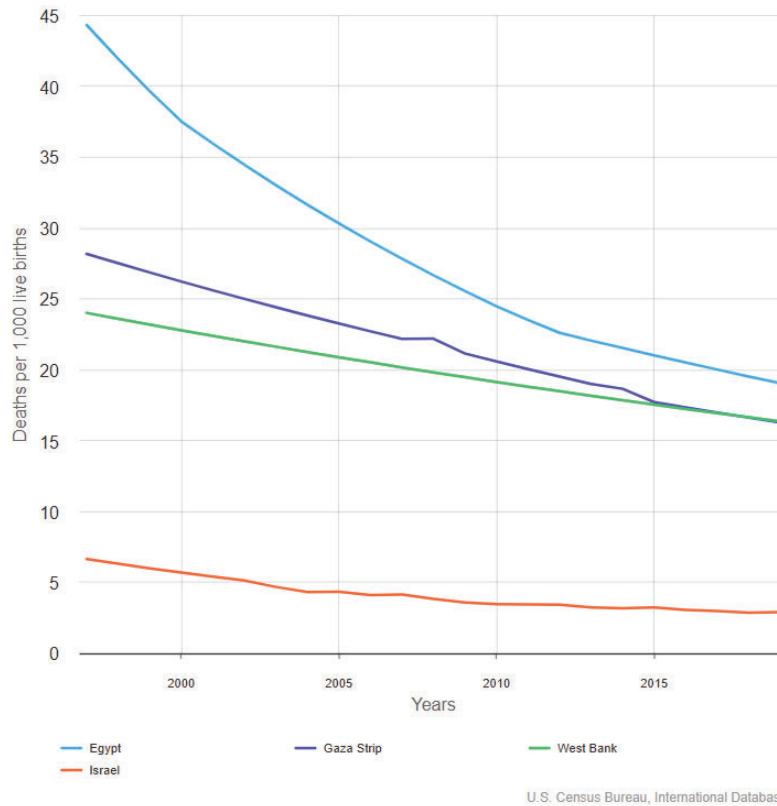


Figure 6: Infant mortality in Egypt, Israel, the West Bank and Gaza between 1997-2019⁶³

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From International Data Base: Life Expectancy at Birth (1997–2019), Egypt.

[https://www.census.gov/data-](https://www.census.gov/data-tools/demo/idb/#/dashboard/page?country=EG&ANIM_YR_TRYCOUN=1997&YEAR_COUNTRY=2019&CCODE=EG&SINGLE_CCODE=EG&admin_map_subnat=1ADM&trendsViz=menu&RANGE_TREND=1997,2019&IL,XW,GX=CCODE&YRS_ADD_TREND=5&STEP=0E&measures=)

[tools/demo/idb/#/dashboard/page?country=EG&ANIM_YR_TRYCOUN=1997&YEAR_COUNTRY=2019&CCODE=EG&SINGLE_CCODE=EG&admin_map_subnat=1ADM&trendsViz=menu&RANGE_TREND=1997,2019&IL,XW,GX=CCODE&YRS_ADD_TREND=5&STEP=0E&measures=](https://www.census.gov/data-tools/demo/idb/#/dashboard/page?country=EG&ANIM_YR_TRYCOUN=1997&YEAR_COUNTRY=2019&CCODE=EG&SINGLE_CCODE=EG&admin_map_subnat=1ADM&trendsViz=menu&RANGE_TREND=1997,2019&IL,XW,GX=CCODE&YRS_ADD_TREND=5&STEP=0E&measures=)

⁶³ https://www.census.gov/data-tools/demo/idb/#/trends?dashboard_page=country&COUNTRY_YR_ANIM=1997&CCODE_SINGLE=EG&subnat_map_admin=ADM1&CCODE=EG,XG,XW,IL&COUNTRY_YEAR=1997&menu=trendsViz&TREND_RANGE=1997,2019&TREND_STEP=5&TREND_ADD_YRS=&measures=E0

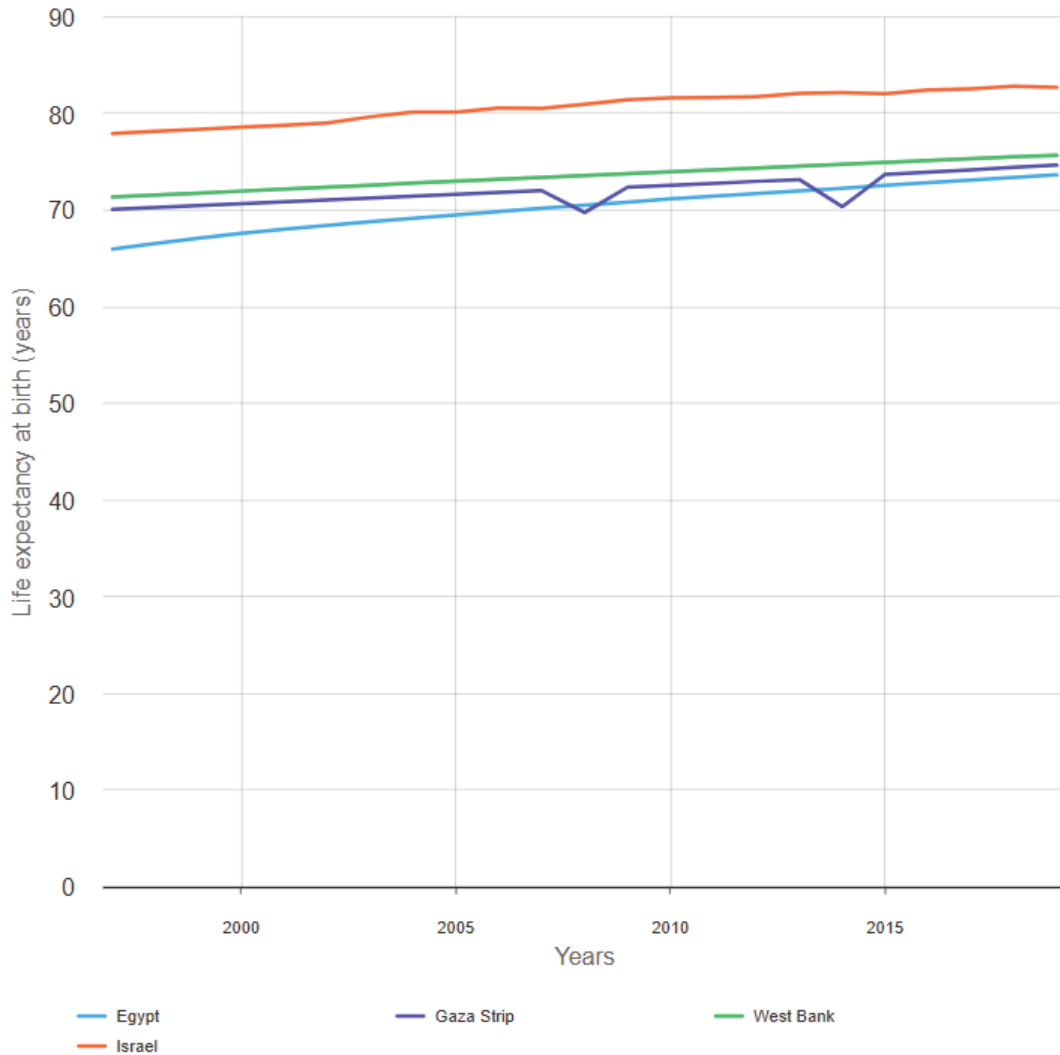


Figure 7: Life expectancy in Egypt, Israel, the West Bank and Gaza between 1997-2019⁶⁴

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https://www.census.gov/data-tools/demo/idb/#/dashboard/page?country=EG&ANIM_YR_TRYCOUN=1997&YEAR_COUNTRY=2019&CCODE=EG&SINGLE_CCODE=EG&admin_map_subnat=1ADM&trendsViz=menu&RANGE_TREND=1997,2019&IL,XW,GX=CCODE&YRS_ADD_TREND=5&STEP=0E&measures=

Both indicators reveal an almost perfectly aligned trend between the West Bank and the Gaza Strip, with Gaza closing the gap between the two. Both regions have reduced their disparities relative to Israel, while Egypt is gradually catching up to the Palestinian territories.

The 2008 and 2014 dips in Gazan life expectancy coincide with violent conflict. Moreover, mortality and life expectancy in Gaza is not significantly affected by the Second Intifada, the imposition of a strict blockade (2007–2011), its easing (2011–2014), or its *de facto* lifting (2014–2019), as reflected in the number of trucks

⁶⁴ https://www.census.gov/data-tools/demo/idb/#/trends?dashboard_page=country&COUNTRY_YR_ANIM=1997&CCODE_SINGLE=EG&subnat_map_admin=ADM1&CCODE=EG,XG,XW,IL&COUNTRY_YEAR=1997&menu=trendsViz&TREND_RANGE=1997,2019&TREND_STEP=5&TREND_ADD_YRS=&measures=E0

entering the Gaza Strip (Figure 8). Neither infant mortality rates, life expectancy, nor their improvement trends have been influenced by the number of trucks entering Gaza since 2006.



Figure 8: Truck entries into Gaza between 2005 and 2022⁶⁵

© United Nations, 2025. Reprinted with permission from the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) under fair use conditions— Gaza Crossings: Movement of People and Goods. <https://www.ochaopt.org/data/crossings>

Let us re-emphasize: regardless of the legal, moral, military, or political justification for restricting the entry of goods into Gaza between 2007 and 2014, and regardless of the actual policies implemented between 2015 and 2023, there is no apparent evidence that the restrictions adversely impacted life expectancy in Gaza. Any decline in quality of life did not result in a decrease in life expectancy.

We note that certain UNRWA-sponsored studies by Gazan doctors nonetheless claimed that infant mortality in Gaza had become stagnant and was not decreasing.⁶⁶ Although these claims were widely disseminated as part of UNRWA's "emergency appeals," subsequent evidence showed them to contradict broader data from the Gaza Ministry of Health and the Palestinian Central Bureau of Statistics, suggesting the presence of selection bias, publication bias, or even deliberate data falsification.

Indeed, this is a phenomenon similar to that described in Chapter 6 regarding the non-impact of the Iraq sanctions regime on infant mortality. While shortages were undoubtedly part of daily life for some residents of Gaza, as was the case for many in the Global South, and although blocking the entry of Palestinian workers into Israel undoubtedly affected the quality of life for many families, there is no evidence supporting malnutrition prior to October 7, 2023. On the contrary: the data indicate a steady improvement in both life expectancy and quality of life in Gaza.

⁶⁵ <https://www.ochaopt.org/data/crossings>

⁶⁶ <https://www.un.org/unispal/document/unrwa-report-finds-infant-mortality-in-gaza-no-longer-in-decline-press-release/>

G. Pre-War Food Production in Gaza: Erroneous Estimates Without Source Verification

Amnesty's June report claims that local production in Gaza before the conflict reached **44% of total consumption**⁶⁷. This percentage is, remarkably, equal to that of Israel. However, when one takes into account the importation of animal feed to Israel, only **20%** of Israel's **caloric** consumption is based on domestic production.⁶⁸ Gaza had only 115,000 dunams (1,500 hectares) of cultivated land in 2011 (similar to previous census data), representing around 9% of the cultivated land in the Palestinian territories,⁶⁹ compared to 3.5-4.2 million dunams (350,000-420,000 hectares) in Israel—for a production of 4,778,000 tons (1,415,000 field crops, 1,652,000 fruits, 1,711,000 vegetables).⁷⁰

One might have thought these elementary numbers would have led Amnesty's researchers to double-check their estimates and actually look at how much food Gaza produced. Even in 2005, prior to the Hamas takeover and the restrictions imposed by Israel as a result, Gazan agricultural **production** was no more than 388,880 metric tons: 256,895 tons of vegetables, 48,260 tons of fruit, and 83,725 metric tons of field crops (primarily potatoes). That, and animal products fed on imported animal feed, accounted for only 23% of Gazan **consumption**, in **metric tons**, for the major sources of Gazan nutrition (wheat for flour, tubers, legumes, vegetables, fruit, red meat, broilers, eggs, dairy, fish, olive oil).⁷¹ This did not account for exports, equivalent to 2,680 tons per month or 32,160 tons per year, to Israel and the West Bank. We have found no clear caloric calculations for that time period, but note that the only food item for which Gazan agriculture largely provided was low calorie vegetables, with 98% of wheat for flour, 95% of olive oil, 74% of meat, and so on being imported. Hence, caloric production was likely much lower than 23%, even then.

By 2011, Gaza's total agricultural yield had dropped to only 112,778 tons (57,650 tons of vegetables, 47,245 tons of fruits, and 7,883 field crops)⁷² Most notably, field crops had almost completely disappeared, as increased UNWRA flour and other staples (including olive oil) had made growing them uneconomic. Despite the non-existent agricultural sector, food imports per capita were only 90% of what they would be in 2022 (see table 4) according to OCHA data. And yet, there are no indications of increased mortality during that time period, as we describe in section F.

⁶⁷ <https://www.ifpri.org/blog/one-year-of-war-in-gaza-food-emergency-continues-with-no-end-in-sight/>
<https://www.amnesty.org/en/documents/mde15/8668/2024/en>, p.174./

⁶⁸ https://www.cbs.gov.il/he/mediarelease/DocLib/2024/087/07_24_087b.pdf;
<https://www.yfpp.org.il/sites/default/files/2020-12/%D7%99%D7%A1%D7%95%D7%93%D7%95%D7%AA%20-%20%D7%91%D7%98%D7%97%D7%95%D7%9F%20%D7%9E%D7%96%D7%95%D7%9F%20%D7%9C%D7%90%D7%95%D7%9E%D7%99%20-%20%D7%A1%D7%95%D7%A4%D7%99.pdf>
page 21.

⁶⁹ https://unctad.org/system/files/official-document/gdsapp2015d1_en.pdf table 2;

⁷⁰ <https://storymaps.arcgis.com/stories/715ac1ce1f344837974c47c1a29a9d63>

⁷¹ West Bank and Gaza Strip: Comprehensive Food Security and Vulnerability Analysis (CFSVA)

⁷² https://unctad.org/system/files/official-document/gdsapp2015d1_en.pdf table 2;

	2011	2011 including agricultural production truck equivalents	2022	October 7 2023- January 13 2025 (annual average) UNRWA	October 7 2023- January 17 2025 (annual average) COGAT
Food exports (trucks)	195	195	1,196 (2,984 non edible consumables)	0	0
Food imports (trucks)	18,173	18,173	26,554	30,225	36,688
Truck including agricultural production in metric tons		23,223			
Population	1,590,230 ⁷³		2,166,269 ⁷⁴	2,100,000 (UN estimate) ⁷⁵	
Ratio trucks/population	0.0114	0.0146	0.0123	0.0190	0.0231

Table 4: Agricultural production versus food imports. Food import and export data drawn from OCHA⁷⁶, and COGAT (for 2022 only)

We note that this data relies on the PCBS agriculture census for 2010-2011. The 2021 agricultural census did not, unfortunately, provide metric ton production data, as far as we can see. There are some indications of agricultural recovery in the intervening period, and particularly in exports to Israel and the West Bank (1,196 trucks of edible food, equivalent to approximately 2,142 tons per month compared to 2,680 tons prior to the Hamas takeover).

However, even assuming a full recovery, which seems unlikely given the loss of agricultural land to urbanization in the densely populated Strip between 2005 to 2022, the Gazan population has grown by 68%, and Gazan agriculture has focused even more on seasonal vegetables and fruit. We therefore view Francesco Checchi's assessment, which states that local agriculture supplied 12% of the caloric intake in Gaza before the fighting, as credible, if not an overestimate.⁷⁷ **This consumption could be replaced without nutritional loss, compared to pre-war conditions, with no more than 10 daily trucks.** We note that this assumes it is possible to supply the caloric value of Gazan agriculture without actually substituting fresh vegetables and other high-bulk and high-weight products. As Naomi Fliss-Isakov, et al⁷⁸ indicate in their analysis of the nutritional content of food sent into Gaza during January-July 2024, however, the nutritional contents of these shipments was more than adequate.

⁷³ https://www.pcbs.gov.ps/portals/_pcbs/pressrelease/internationalpopday2011e.pdf

⁷⁴ <https://www.pcbs.gov.ps/post.aspx?lang=en&ItemID=4150>

⁷⁵ <https://www.unocha.org/publications/report/occupied-palestinian-territory/humanitarian-situation-update-224-gaza-strip>

⁷⁶ <https://www.ochaopt.org/data/crossings>

⁷⁷ https://gaza-projections.org/docs/report3/wartime_food_availability_in_the_gaza_strip.pdf ; Checchi claims this percentage is based on OXFAM data. We have not, however, been able to track down this specific datum in the report he cited, and Checchi has not been able to provide us with a more exact source to date.

⁷⁸ Naomi Fliss-Isakov et al., "Food Supplied to Gaza during Seven Months of the Hamas-Israel War", *Israel Journal of Health Policy Research* vo.14 (2025), p.12.
<https://ijhpr.biomedcentral.com/articles/10.1186/s13584-025-00668-6>

Even if we were to substitute 2011 Gazan agricultural production on a per-ton basis, assuming 21.5 tons per truck (COGAT average), the resulting number of trucks per capita would still be substantially smaller than that recorded by either UNRWA (following retroactive correction) or COGAT up to January 17, 2025. Specifically, the number of trucks supplied during the war was 58% higher (COGAT) or 30% higher (UNRWA) than in 2011, even when accounting for agriculture substitution. In any event, supply of fresh food supplies during intense fighting is not a routine response to food crises. The assumption that life can continue normally during intense war without any impact on dietary routines is unfounded.

What, then, is the source of the claim that 44% of Gaza's local consumption comes from local production? Amnesty refers to a publication by the Palestinian Central Bureau of Statistics from December 2023⁷⁹—timing that itself should have aroused suspicion as an attempt to sway public opinion to halt the war in its early months. A basic check of the source of this misleading claim clarifies that this calculation (not presented anywhere) is based on an analysis of the supply and use tables (SUT) for Gaza and the West Bank. This analysis does not refer to caloric or metric food consumption but only to household **expenditures** on food products.⁸⁰

It is important to note that this calculation ignores food grants from UNRWA, which supplied 1,841 calories per person for 770,000 people, and 969 calories per person for 370,000 people in 2022—amounting to 42% of the annual caloric intake needed for the entire Gaza Strip—plus significant additional handouts by the WFP⁸¹. The fact that this data circulates without a basic understanding of its significance, without checking its calculation method, and without any tracing of its sources is another characteristic failure of the circular citation phenomenon prevalent in many sources discussing the Gaza war.

We add two caveats:

- In addition to agricultural crops, Gaza has a meat industry. However, this industry relies entirely on feeding poultry and cattle with grain imported from Israel at roughly 25 trucks per day. As a rough estimate, this represents a feed conversion efficiency of 1:5 for poultry (mainly) and cattle, equivalent to five daily trucks of human food. Although the meat sector seems to be included in the 12% estimate we cited, we have chosen to include these trucks **in addition** to those matching overall domestic agricultural production to maintain a safety margin in our estimates.

- Second, the fishing industry in Gaza should be considered, though its output is negligible in quantitative terms: about 3,000–4,500 tons annually between 2018 and 2020, with about 600 tons based on fish farms and imported fish feed from Israel. It is worth noting that between 2018 and 2023, restrictions on fishing zones were eased by Israel. Before October 7, the fishing zone had been restored to pre-Second Intifada levels, with higher fish catches than between 1997 and 1999. The easing measures, as in other agricultural sectors, coincided with increased exports: 1,162 tons of fish in 2022 to the West Bank, a level higher than before the Second Intifada. This suggests that claims of shortages in Gaza before the war were unfounded.

H. Interim Summary:

The Maximum Number of Trucks Required to Feed Gaza During the War

In summary, taking 2022 as a reference year, we see that 73 food trucks entered Gaza daily. Additionally, 24 trucks of animal feed and livestock feed entered daily, equivalent to five trucks of human food. Allowing for the role of local agriculture **in addition** to the animal feed (8 trucks) brings us to 86 trucks. This estimate

⁷⁹ <https://www.pcbs.gov.ps/post.aspx?lang=en&ItemID=4659>; Pg 3

⁸⁰ https://www.un.org/unispal/wp-content/uploads/2022/04/ESCWATABLEDOC_270422.pdf

⁸¹ https://www.un.org/unispal/wp-content/uploads/2022/05/WFPCBAPRIL22_300422.pdf

assumes no exports and that all agricultural production ceased at the start of the war, despite estimates that at least half the local production survived until May 2024.

Considering that about 100,000 Gaza residents fled to Egypt at the start of the fighting, the number of trucks needed to meet the food needs of Gaza's population at pre-war levels drops to 82 trucks per day (assuming a 2.16 million pre-war population in line with PCBS estimates)—even without considering higher caloric density in wartime food shipments. Using a different calculation, OCHA stated during the January-March ceasefire that 60,000 tons of aid were required every month to feed everyone in Gaza.⁸² WFP stated on April 2025 that 116,000 tons of food would suffice to feed one million Gazans for four months, even accounting for waste and losses⁸³ (or 60,900 tons for **2.1 million Gazans per month**).

Regardless of the calculation used, between October 7, 2023 and January 17, 2025, a total of 1,011,575 tons of food were transferred into Gaza, according to COGAT. An average of 102 food trucks entered Gaza daily; see Table 5 below for the various comparisons. You will note that in no case can 500 daily trucks, or 150-180 trucks, be calculated from them. These numbers assume, of course, that it is necessary to feed Gazans in wartime at the same level as prior to the war and that no greater nutritional efficiency can be achieved in wartime shipments, or that a certain surplus is required to allow for wastage and inequitable distribution. Nonetheless, according to COGAT data, 23% more aid was delivered than we calculate was required. According to presumably incorrect UNRWA data (see below in next subsection), this level was barely achieved on average during the war.

	Our calculation	OCHA	WFP	UNRWA retroactively corrected data	COGAT
Trucks per day	82	76	93	83	100.5
Tons per day	1,767	1,644	2,002	1,785*	2,173
Trucks per month	2,494	2320	2,826	2,519	3,047
Tons per month	53,749	50,000	60,900	54,279*	65,923
Trucks October 7 2023 – January 17 2025	38,294	35,623	43,389	38,671*	46,721
Tons October 7 2023- January 17 2025	825,236	767,671	935,024	833,369*	1,010,613

⁸² <https://www.ochaopt.org/content/report-humanitarian-response-un-and-humanitarian-partners-during-phase-one-ceasefire>; More than 50,000 metric tons of food supplies are required monthly to assist the whole population of 2.1 million people with full rations and sustain the little progress made towards improved food access during the ceasefire period. This is in addition to supplies required to sustain hot meal production, and the over 9,700 metric tons of flour needed per month to keep subsidized bakeries running without interruptions to ensure that people have access to affordable bread.

⁸³ ע"פ הערכת האו"ם, בהתאם להערכות הלמ"ס הפלסטיני ברמאללה - <https://www.unocha.org/publications/report/occupied-palestinian-territory/humanitarian-situation-update-224-gaza-strip-enarhe#:~:text=As%20of%20July%202024%2C%20the,now%20used%20for%20programmatic%20purposes>.

Table 5: food trucks required to enter Gaza according to our calculations, WFP and OCHA compared to number of trucks which actually entered Gaza. *UNRWA data ends at January 13 2025, and it is extrapolated to January 17 based on average number of trucks.

Likewise, UNRWA data unlike COGAT does not include tons but variably interpreted pallets, and so it is extrapolated on the basis of COGAT data on average ton freight of food trucks.

Regardless, the volume of supplies entering the Strip between January and April 2024 was substantially higher than the wartime average, averaging 116 trucks daily at land crossings according to COGAT, with UNRWA reporting lower but still more than sufficient levels.

I. The May Crisis That Wasn't: "Retroactive Data Changes May Apply"

By May 2024, the situation had reportedly changed.

A US veto prohibited Israeli operations in Rafah for three months (February-April 2024), citing concerns that such actions would result in slaughter and a humanitarian catastrophe. In response, the International Court of Justice (ICJ) took the unprecedented step of issuing an order restricting Israeli military activity in Rafah. However, the ruling's ambiguous language sparked differing interpretations: some judges viewed it not as an absolute ban but as a prohibition on actions likely to create living conditions that could partially or wholly destroy the Palestinian population in Rafah, while others understood it as a comprehensive ban on all IDF activity in the area.⁸⁴

Additionally, Karim Khan, the ICC prosecutor, warned Israel against conducting operations in Rafah. His subsequent filing of arrest warrants against Prime Minister Netanyahu and Defense Minister Gallant has been linked to Israel's decision to launch the operation in defiance of these warnings, as well as to the perception that the operation was opposed by the United States.⁸⁵

The ban on the operation in Rafah was a primary goal of numerous pro-Palestinian activists,⁸⁶ and human rights organizations like HRW had long declared that any evacuation order for the Rafah population would be both illegal and unfeasible as it would lead to disastrous outcomes.⁸⁷

In practice, Israel's operations in Rafah did not result in mass slaughter. In fact, they coincided with a reduction in daily Gazan casualties. The Gaza Ministry of Health reported 3,465 deaths between April 30 and June 30, 2024, compared to 4,500 deaths from February 29 to April 30. This decrease is largely attributed to Hamas evacuating the civilian population ahead of the IDF's entry, enabling them to place explosives inside residential homes—an activity they were able to undertake during the three-month delay caused by widespread international opposition to the operation.⁸⁸

⁸⁴ <https://www.timesofisrael.com/icj-orders-israel-to-halt-rafah-operations-that-risk-destruction-of-civilian-population/>; <https://www.washingtonpost.com/world/2024/05/24/israel-rafah-invasion-icj-ruling/>

⁸⁵ <https://www.un.org/unispal/document/icc-arrest-warrant-netanyahu-21nov24/>

⁸⁶ <https://www.cbc.ca/news/world/all-eyes-on-rafah-viral-post-1.7219132>

⁸⁷ <https://www.hrw.org/news/2024/02/09/israel-rafah-evacuation-plans-catastrophic-unlawful>

⁸⁸ <https://www.un.org/unispal/document/icc-arrest-warrant-netanyahu-21nov24/>

However, UNRWA, which was tasked with reporting aid entry into Gaza based on OCHA data, reported a 70% decline in aid entry that month⁸⁹. These alarming figures were faithfully and uncritically echoed by various Western media outlets.⁹⁰

In subsequent months, UNRWA continued to report non-entry of aid (see Figure 9), despite COGAT insisting that aid entry not only did not decline but increased, and that UNRWA only counted trucks crossing at Kerem Shalom, performed partial counts there as well, and completely ignored the role of commercial trucks in aid entry.

FIGURE 13

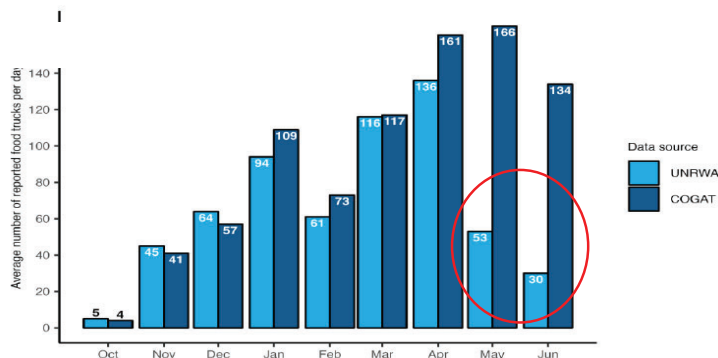


Figure 9: The May 2024 “crisis”: Average number of food trucks entering Gaza, UNRWA vs. COGAT

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<https://www.amnesty.org/en/documents/mde15/8668/2024/en/>

Amnesty International chose to explain the discrepancy by uncritically accepting an anecdotal and unverified claim from the UN OCHA spokesperson, according to which Israel insisted that trucks passing through the border crossing be only half-full to facilitate easier inspection and transparency, while trucks arriving at UNRWA warehouses were fully loaded.⁹¹

Indeed, this claim was raised even before the May operation. In April 2024, the UN issued a statement from the OCHA spokesperson explaining the refusal to directly compare the daily entry and receipt of trucks:

Trucks screened by COGAT are typically only half full, in line with its requirements. When we count the trucks on the other side after they have been reloaded... they are full. Already there, the numbers will never match up.

He explained that counting day-to-day and comparing numbers “makes little sense” because it does not account for delays at the crossing or moving to warehouses.⁹²

This claim was incorrect and inconsistent with UNRWA’s own data. The reason for the discrepancy became evident in December 2024, when the agency’s website was updated with a revealing graph (Figure

⁸⁹ <https://www.reuters.com/world/middle-east/gaza-aid-deliveries-drop-by-two-thirds-since-israels-move-into-rafah-un-says-2024-05-29/>

⁹⁰ <https://www.washingtonpost.com/world/2024/05/30/israel-hamas-war-news-gaza-palestine-rafah/>

⁹¹ <https://news.un.org/en/story/2024/04/1148386>

⁹²

<https://news.un.org/en/story/2024/04/1148386#:~:text=Trucks%20screened%20by%20COGAT%20are,match%20up%2C%E2%80%9D%20he%20continued.>

10) displaying the UN’s revised data on truck entries into Gaza—data that contradicted the accompanying self-justifying statement.

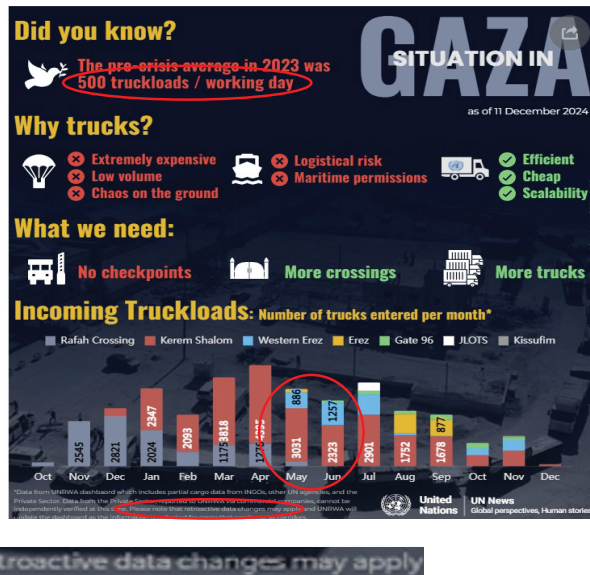


Figure 10: Restatement of the claim that 500 trucks per day entered before the war, clarified and reduced to refer specifically to workdays at crossings (top); updated data tempering claims of aid decline in May by partially accounting for trucks entering through additional crossings (middle); and a note clarifying that the data are subject to retroactive revisions (bottom).⁹³

The updated data show that there was no 70% decline in aid truck entries in May. How so? Because, in very small print at the bottom of the graph, it is clarified that the data is subject to retroactive changes, and in any case, does not include all trucks entering through the private sector, NGOs other than UN organizations, or even UN organizations that are not UNRWA. In other words, the UNRWA data does not represent actual, reliable figures.

In practice, updated UN data from March 15, 2025 shows that a total of 3,714 food trucks entered Gaza in May — about 120 trucks per day, compared to the 53 trucks reported by UNRWA in May 2024. In fact, this figure is closer to the 166 food trucks reported by COGAT. In June, according to the updated UNRWA data, 2,891 trucks entered — about 96.1 per day, not the 30 (!) that UNRWA reported in June 2024. In July, 4,133 food trucks entered, or about 133.5 per day — a number almost identical to that of April. Throughout these months, significantly more trucks were recorded entering UNRWA warehouses than before the war.

⁹³ https://www.un.org/unispal/content/uploads/2024/03/Factsheet_Famine_IPC.pdf

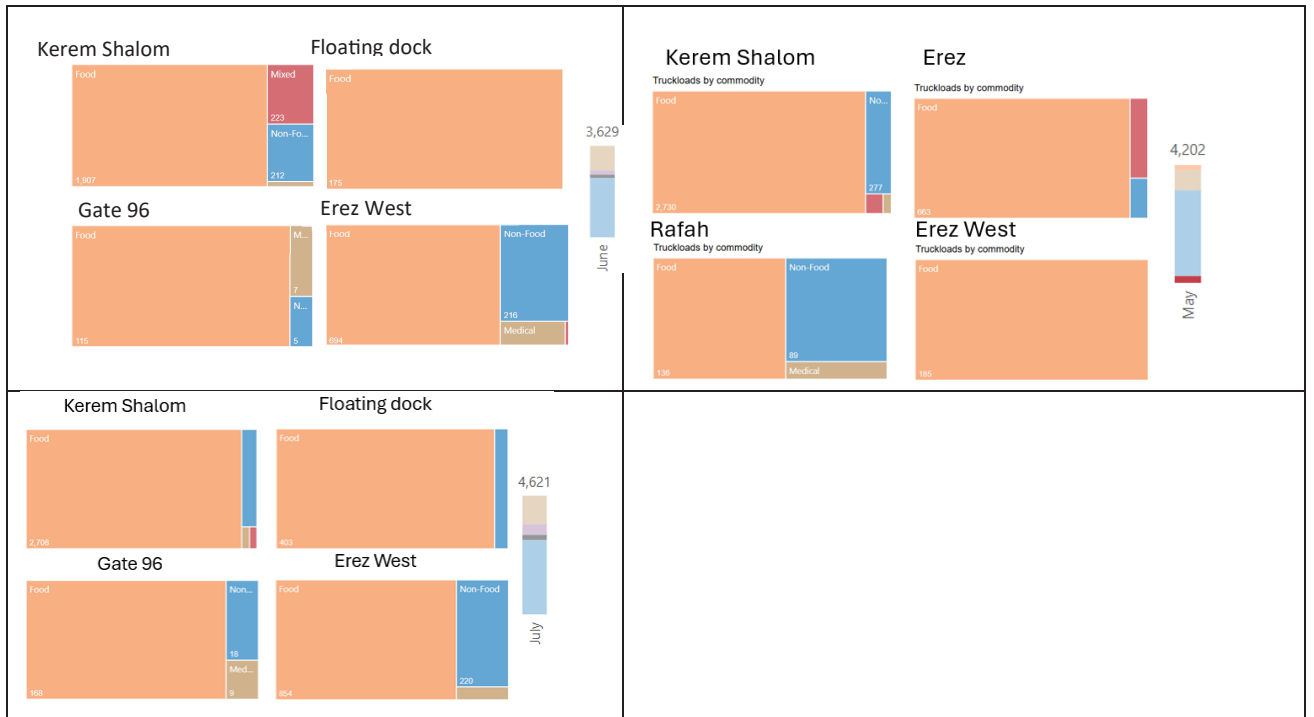


Figure 11. Updated but partial record (April 25, 2025) of truck entries into Gaza through all crossings in May (top right), June (top left), and July (bottom left) 2024, according to OCHA data.⁹⁴

© United Nations, 2025. Reprinted with permission from the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) — Gaza Crossings Data. Used under fair use conditions.
<https://www.ochaopt.org/data/crossings>

H. Hamas Aid Diversion

Another critical factor in assessing the extent of shortages in Gaza is the diversion of aid intended for residents by Hamas and other armed groups within the enclave.

There is abundant evidence that Hamas diverts humanitarian aid intended for Gaza’s residents to support its fighters and finance its governance apparatus. In 2016, Shin Bet arrested Muhammad Halabi, a worker at the relief organization World Vision, on suspicion of transferring raw materials originally meant for Gaza’s welfare to Hamas’s military wing as well as embezzling aid funds to channel them to Hamas. A Hamas interrogation transcript of a Palestinian colleague who attempted to alert the organization’s management about the theft was found on Halabi’s computer. The colleague was fired and almost immediately arrested by Hamas security forces.

This case illustrates Hamas’s determination—and success—at infiltrating aid organizations and taking them over from within, as well as the danger faced by Gazan whistleblowers. Halabi was convicted by the Be’er Sheva District Court in 2022 and was among the prisoners Hamas demanded be released in the January 2024 hostage exchange deal.⁹⁵

Shortly after the October 7 massacre, Hamas’s military wing released a video of a naked Israeli hostage, with hands tied, alongside sacks of sand donated by the Japanese government for the welfare of Gaza

⁹⁴ <https://www.ochaopt.org/data/crossings>

⁹⁵ תפ"ח 12074-08-16 מדינת ישראל נ' הלבי, ע"ע 17, 14.

residents.⁹⁶ In February 2024, IDF soldiers filmed UNRWA sacks of cement used in the building of one of Hamas's tunnels.⁹⁷

On October 10 of that year, footage was published of armed militants taking over 47 aid trucks in Rafah and shooting at civilians trying to approach.⁹⁸ NBC published a photo of looters leading aid trucks through the streets of Deir al-Balah, a city that became a Hamas command center and that the IDF never captured during the 2023-25 Gaza War, at least not as of June 1, 2025. No organized group could operate in that area without the consent of Hamas, the region's most powerful armed organization.⁹⁹ This was just one of many cases. To eliminate any doubt, a recorded conversation was published in September 2024 in which Hamas members themselves admitted that they steal aid and that their warehouses are so full that "there is no more space."¹⁰⁰

In June 2025, the IDF released documents from Hamas's archives containing irrefutable proof of the organization's pilfering of aid. One document revealed that Hamas's military wing alone stole 25% of humanitarian aid before April 2024, while afterward, they limited themselves to "only" 15% in cooperation with other Hamas entities. Of course, this refers solely to direct theft. Additional forms include taxation as well as informal extortion.¹⁰¹

Throughout the war, both Israeli and Palestinian sources—governmental and civilian—testified to Hamas's diversion of humanitarian aid. On March 20, 2025, hostage Eli Sharabi testified before the UN Security Council that Hamas members consumed humanitarian aid in his presence while he was being starved:

*I know that you've discussed the humanitarian situation in Gaza very often. But let me tell you, as an eyewitness, I saw what happened to that aid: Hamas stole it. I saw Hamas terrorists carrying boxes with the UN and UNRWA emblems on them into the tunnel. Dozens and dozens of boxes paid by your governments. Feeding terrorists who tortured me and murdered my family. They would eat many meals a day from the UN aid in front of us and we never received any of it.*¹⁰²

A year earlier, in February 2024, minister-without-portfolio and War Cabinet observer former General Gadi Eizenkot sharply criticized Prime Minister Netanyahu, claiming that 60% of the aid was diverted to Hamas.¹⁰³

These claims were also raised by Palestinian figures. On May 4, 2025, Palestinian Authority President Mahmoud Abbas (Abu Mazen) stated that "Hamas-related gangs are stealing aid,"¹⁰⁴ a serious accusation that could explain why aid organizations reported their warehouses had been emptied by April 2025, following the suspension of aid in March 2025, despite large stockpiles that should have sufficed to July 2025 (see discussion below). This claim was further supported by Ahmed Fuad al-Khatib, a vocal critic of the Hamas regime whose family resides in Gaza. Khatib frequently shares testimonies from residents who fear speaking out against the regime.¹⁰⁵ Dr. Michel J.J. Thieren, a veteran humanitarian expert and the special representative of the World Health Organization to Israel, also wrote in a recent report that "the

⁹⁶ <https://x.com/EllaTravelsLove/status/1711678054487961828>

⁹⁷ https://www.youtube.com/watch?v=BfsvO88g_B0, 4:50 ראה דקה ,

⁹⁸ <https://nypost.com/2024/10/10/world-news/hamas-steals-humanitarian-aid-trucks-from-gaza-strip/> , / <https://videoidf.azureedge.net/d9f5e016-6433-44f6-a324-ea64a3c5a178> .

⁹⁹ <https://www.nbcnews.com/news/world/israel-gaza-war-aid-trucks-theft-prices-soaring-rcna180761>

¹⁰⁰ https://www.mako.co.il/news-military/2024_q3/Article-0fb39375a2ce191027.htm

¹⁰¹ <https://www.idf.il/298356> , <https://videoidf.azureedge.net/2c1906c2-a4a8-4811-849d-b28bf9b264a9> . <https://videoidf.azureedge.net/e23f2127-bed9-47a2-9e83-586f94981b42>

¹⁰² <https://www.timesofisrael.com/full-text-freed-hostage-eli-sharabi-asks-un-security-council-where-was-the-world/>

¹⁰³ <https://www.maariv.co.il/news/politics/Article-1074539>

¹⁰⁴ <https://www.jns.org/abbas-confirms-hamas-gangs-stealing-gaza-aid/>

¹⁰⁵ https://www.linkedin.com/posts/afalkhatib_hamas-stole-half-of-the-aid-that-was-allowed-activity-7331870335551660032-ozwe

failures in food distributions [in Gaza] ... is not rooted in a policy of aid retention by Israel, but in systematically [*sic*] looting by armed groups."¹⁰⁶

Before Israel regained control of the Rafah crossing, Gaza merchants testified on camera that Hamas border officers hiding in hospitals were stealing a significant portion of goods brought from Egypt with Israeli approval.¹⁰⁷ Palestinian journalist Ayman Khaled asserted that Hamas steals and resells humanitarian aid, emphasizing that the scale and complexity of these thefts are too extensive to be managed by non-governmental criminal gangs.¹⁰⁸ Recently, the *Washington Post* published an article citing numerous (though anonymous) Palestinians who described Hamas's aid diversion practices—from taxing trucks upon entry, in cash or in kind, to confiscating aid from warehouses for so-called “redistribution.”¹⁰⁹

But evidence aside, there is also common sense. Hamas fighters have held out in tunnels dozens of meters deep for over a year and a half. What do they eat, if not aid brought in throughout the war? How do they pay their operatives, with their usual funding sources cut off, if not through the confiscation, taxation or reselling of aid? This is especially true for fuel required to ventilate the tunnels. Maintaining Hamas's enormous tunnel network requires vast amounts of such fuel, which can only be supplied through humanitarian aid entering Gaza. There is plenty of evidence, including recorded conversations, of Hamas stealing fuel, including from hospitals.¹¹⁰ This should not be surprising, as the phenomenon of aid theft is not unique to Gaza. In other conflict zones, the dominant armed actors, intermediaries and brokers tend to steal humanitarian resources to the best of their ability.¹¹¹

I. Northern Gaza, Local Hunger, Siege and International Humanitarian Law

Up to this point, we have considered Gaza as a single unit. We now turn to specific claims about hunger in northern Gaza.

Beginning on November 6, 2023, Israel seized the Netzarim corridor, effectively dividing northern Gaza from the south. Prior to the operation, the population in the north was warned to evacuate southward, and the majority complied with the order. Only after the first ceasefire on November 24, 2023 did Israel allow aid into northern Gaza. From the end of the ceasefire in December 2023 until March 2024, Israel did not formally prohibit food entry into northern Gaza, and there was some food entry via UNRWA convoys passing through the Netzarim corridor and via shipments from the sea port or private trucks not documented by UNRWA.

Nevertheless, many aid convoys to northern Gaza were blocked or delayed due to ongoing fierce fighting and military activity along the crossing route. Convoys held at Netzarim were often looted by Gazans during waiting hours. It should be noted that both the initial opening of humanitarian corridors—whether for evacuation or aid delivery—and the de-escalation mechanisms designed to enable convoy passage were

¹⁰⁶ Michel J.J. Thieren, "WHO and Israel at War: Context Analysis, Program Performance – 7 October 2023 – 15 July 2025", p.46.

¹⁰⁷ <https://t.me/abualiexpress/64369>

¹⁰⁸ <https://www.memri.org/reports/palestinian-journalist-ayman-khaled-hamas-complicit-stealing-humanitarian-aid-and-selling-it>

¹⁰⁹ <https://www.washingtonpost.com/world/2025/07/21/hamas-gaza-war-financial-crisis/>

¹¹⁰ <https://www.idf.il/en/mini-sites/israel-at-war/war-on-hamas-2023-resources/how-hamas-steals-fuel-from-hospitals-at-the-expense-of-gazan-civilians/>

¹¹¹ Letter dated 10 March 2010 from the Chairman of the Security Council Committee pursuant to resolutions 751 (1992) and 1907 (2009) concerning Somalia and Eritrea addressed to the President of the Security Council, 10.3.2010, P.60.

<https://documents.un.org/doc/undoc/gen/n10/246/89/pdf/n1024689.pdf>

:לדיין גרמב ראה:

<https://www.thenewhumanitarian.org/podcasts/2023/12/07/whats-unsaid-lets-talk-about-aid-diversion>

operated unilaterally by the IDF, contrary to the wishes of aid organizations. At no point were Hamas or other armed groups committed to respecting these corridors. There is ample evidence of IDF soldiers returning fire when attacked, of Hamas fighters using the corridors to move under civilian cover, and of Hamas operatives planning and even carrying out attacks on civilians attempting to evacuate.¹¹² This factual account of events is largely undisputed.

From here, two questions arise that we will now endeavor to answer.

- The first is factual but without a clear, definitive answer: To what extent did the restriction of aid to northern Gaza contribute to food shortages and civilian deaths between October 2023 and March 2024, even if we ignore the issue of aid diversion by Hamas?
- What is the interpretive, moral, and legal framework for assessing Israel's obligation toward these civilians?

I.1. Local Shortages

To ensure a more rigorous assessment regarding the first question, we based our analysis on a study by Francesco Checchi, et al.—researchers who are notably critical of Israel—that examines the estimated weight and caloric value of aid shipments received by UN agencies and evaluates the available nutrition for Gaza residents between October 2023 and July 2024.¹¹³ It should be noted that the study's strict interpretive assumption is that Israel, as an occupying power even prior to October 7, was legally responsible for providing a reasonable amount of food to the entire Gaza Strip throughout the war.¹¹⁴ Regardless of this legal interpretation, the article contains four major factual flaws:

1. **An overestimation of the number of food trucks entering Gaza before the war.** The study assumes, based on the March 2024 IPC report, that 150–180 food trucks entered daily pre-war, whereas in reality the number was approximately half that. Although this error did not directly impact the authors' calculations of total food supply during the conflict, it led them to question COGAT's data on food entry during the war and contributed to the failure to identify error #4 (see below). Furthermore, the fact that actual figures were significantly lower than the researchers' expectations led them to interpret the data more strictly, viewing the failure to reach the "target" of 150 trucks as a sign of deep crisis.¹¹⁵
2. **The exclusion of aid shipments not recorded by UNRWA.** The study assumes only the aid officially received and documented in UN warehouses was used to feed the population, ignoring aid trucks brought in by the private sector to northern Gaza (noting that Israel at times actively encouraged private sector aid entry and the deployment of local clans for distribution).¹¹⁶ Although COGAT data is mentioned, it is not included in the calculations.
3. **The assumption of a consumption level of 2,800 calories per person without shortage, which is based on the pre-war average caloric intake in the West Bank and Gaza.** However, this figure exceeds the minimum required for survival, the recommended healthy intake, and the generally accepted standard for

¹¹² <https://www.jpost.com/middle-east/article-771706>, <https://www.jpost.com/middle-east/article-824521>, <https://www.timesofisrael.com/gaza-aid-trucks-stolen-by-gunmen-and-looted-as-convoy-start-crossing-from-israel/>

¹¹³ Francesco Checchi, Mija Tesse-Ververs, Zeina Jamaluddine, "Wartime Food Availability in the Gaza Strip, October 2023 to August 2024: A Retrospective Analysis", [https://gaza-projections.org/docs/report3/wartime food availability in the gaza strip.pdf](https://gaza-projections.org/docs/report3/wartime%20food%20availability%20in%20the%20gaza%20strip.pdf).

¹¹⁴ Ibid, p.13.

¹¹⁵ Checchi et al., "Wartime", p.6.

¹¹⁶ <https://www.kan.org.il/content/kan-news/politic/667279/>

emergency food supply. In shortage conditions, even before hunger manifests, people typically reduce consumption of non-essential foods.¹¹⁷

4. An underestimation of the amount of food on UNRWA pallets. The study assumes that the contents of the Egyptian Red Crescent pallets (653 kg) represent all pallets counted by UNRWA. In reality, a standard UNRWA truck pallet holds much more (about 1.2 tons).¹¹⁸ Due to this miscalculation, the researchers underestimated the amount of food entering Gaza.

We chose to use this study as a reference despite its shortcomings because it is the only one we found that accounts for both the food stored in warehouses and markets at the outset of the war—and, importantly, attempts a quantitative calculation of caloric availability for residents of northern Gaza. Despite its errors, the study does not indicate food shortages in the southern and central regions of Gaza—where at least 1.9 million Gazans resided at the time—except during two brief periods: three weeks from February 17 to March 9, and one week from March 23 to 30.¹¹⁹ Food supplied during this period exceeded 2,100 calories per person per day, which is more than the recommended daily intake for emergency scenarios.¹²⁰

In northern Gaza, the situation was more severe. According to the researchers' calculations, over eight weeks (January 9 to March 6, 2024), caloric intake fell to about 1,000 calories per person. Afterward, the supply level was sufficient.¹²¹ This level of intake is barely sufficient for the long-term survival of a healthy adult; it is adequate for approximately two months. Falling below this threshold, especially when combined with other health complications or prolonged shortages, would likely result in serious harm or death. However, correcting the food volume based on UNRWA pallets (rather than Egyptian Red Crescent pallets) adds approximately 21% to the available calories for residents in the north, and following recommended emergency consumption guidelines significantly extends the period before shortages become life-threatening.¹²²

In sum, despite the likely short-term decline in nutrition levels, it was not at a level that endangers long-term health or life, except in extreme cases. In southern Gaza, there was, **on average**, no decline below the recommended nutritional threshold.

However, several significant uncertainties remain regarding the data:

- First, the distribution of aid arriving in northern Gaza was likely not ideal.
- Second, it is impossible to determine how many of the aid trucks not recorded by UNRWA actually reached northern Gaza. Unaccounted sources may have reduced the severity of shortages or even eliminated them entirely, but we lack precise data with which to make an assessment.
- Third, the UN's estimate of the remaining population in northern Gaza may be inaccurate, as it relied on the reports of Hamas authorities and local staff. If this estimate is inflated, the food shortage estimate for that area could also be exaggerated or incorrect.

The likelihood that the actual population in northern Gaza was lower is reinforced by the fact that evacuations to the south were possible during this period, including UN convoys traveling in both directions. Indeed, it

¹¹⁷ Checchi et al., "Wartime", p.11, figure no.4.

¹¹⁸ Checchi et al., "Wartime", p.3: "For 86.5% (29,611) records the number of pallets was provided in lieu of weight; pallets' standard load was 637.5 Kg [23] and should not have exceeded 750 kg [31, 32]"

31. Logistics Cluster. Standard Operating Procedures for Accessing Services from the Egyptian Red Crescent (ERC). 2023. <https://logcluster.org/en/document/standard-operating-procedures-accessingservices-egyptian-red-crescent-erc-5-november-2023>. And compare with UNRWA pallet data:

https://www.unrwa.org/sites/default/files/annex_5_palletization_unrwa_labelling_requirements_v2.pdf

¹¹⁹ Checchi et al., "Wartime", p.10.

¹²⁰ *The Sphere Handbook*, p.199.

¹²¹ Checchi et al., "Wartime", p.11.

¹²² *Ibid.*

seems improbable that civilians experiencing severe shortages or starvation—particularly those with families—would have declined evacuation to areas with better food supplies. This consideration leads us to the legal and moral questions concerning Israel’s obligations toward these civilians.

I.2. Laws of Siege

We begin by noting that our purpose is neither to provide a comprehensive legal interpretation nor offer a legal defense representing any official position concerning Israel’s actions. Nonetheless, it is important to recognize that siege and denial of food directed at combatants has historically been a common military tactic—one that has persisted even after World War II and the adoption of subsequent international treaties. While there is broad international consensus that deliberately starving civilian populations as a method of warfare is prohibited¹²³, a siege aimed at achieving a clear military objective is not inherently illegal.¹²⁴

For example, in Mosul in 2017, no arrangements were made to enable food to enter the Old City for seven months until ISIS was defeated, even in many neighborhoods nominally captured by the coalition forces — despite the presence of 200,000 civilians in the combat zone.¹²⁵ Similarly, during the siege of Basra in 2003, UK forces, parties to the Rome Statute, provided humanitarian aid and food **outside** the siege area (in a model not unlike the recently introduced GHF, albeit for only two weeks), but not **within** it, formally citing security concerns due to landmines and ongoing fighting.¹²⁶

This is because siege is not merely a state practice ungrounded in legal theory. Deliberately starving **enemy forces** is considered a permissible method of warfare in US¹²⁷ and UK¹²⁸ combat manuals, provided it meets standards defined in the relevant international conventions, even if customary law interpretations might challenge the practice. For instance, the US Army’s combat manual emphasizes that starvation is a legitimate weapon of war:

It is lawful to besiege enemy forces, i.e., to encircle them with a view towards inducing their surrender by cutting them off from reinforcements, supplies, and communications with the outside world. In particular, it is permissible to seek to starve enemy forces into submission.

The manual also emphasizes that allowing civilian evacuation, as Israel did for the residents of Northern Gaza, is **recommended** but not **mandatory**:

GC COMMENTARY 139 (“The words ‘The Parties to the conflict shall endeavor’ show that under the Convention evacuation is not compulsory; belligerents should nevertheless regard this

¹²³ <https://ihl-databases.icrc.org/en/ihl-treaties/api-1977/article-54>

¹²⁴ <https://ihl-databases.icrc.org/en/customary-ihl/v1/rule53> – Pg 15

“The prohibition of starvation as a method of warfare does not prohibit siege warfare as long as the purpose is to achieve a military objective and not to starve a civilian population. This is stated in the military manuals of France and New Zealand. **Israel’s Manual on the Laws of War explains that the prohibition of starvation “clearly implies that the city’s inhabitants must be allowed to leave the city during a siege”**. Alternatively, the besieging party must allow the free passage of foodstuffs and other essential supplies, in accordance with Rule 55. States denounced the use of siege warfare in Bosnia and Herzegovina. It was also condemned by international organizations.”

¹²⁵ <https://www.voanews.com/a/iraqis-starve-waiting-troops-push-is-from-mosul/3840432.html>;
<https://www.ceasefire.org/wp-content/uploads/2022/03/Protecting-civilians-in-siege-warfare-CEASEFIRE.pdf> p.17

¹²⁶ <https://www.theguardian.com/society/2003/mar/25/iraq.disasterresponse>

¹²⁷ <https://media.defense.gov/2023/Jul/31/2003271432/-1/-1/0/DOD-LAW-OF-WAR-MANUAL-JUNE-2015-UPDATED-JULY%202023.PDF>

¹²⁸ <https://assets.publishing.service.gov.uk/media/5a7952bfe5274a2acd18bda5/JSP3832004Edition.pdf>

*provision as a very strong recommendation to arrange for evacuation whenever it is in the interest of the civilian population and the military situation makes it possible.”)*¹²⁹

The same applies to permitting the entry of aid for vulnerable populations (infants, the injured, pregnant women):

However, allowing passage of these items is not required by the party controlling the area unless that party is satisfied that there are no serious reasons for fearing that:

- *the consignments may be diverted from their destination;*
- *the control may not be effective; or*
- *a definite advantage may accrue to the military efforts or economy of the enemy.*¹³⁰

Moreover, the combat manual clarifies that the prohibition against damaging civilian food sources does not extend to the destruction of fields used for camouflage or supply routes that serve both military and civilian purposes.

*This rule would not apply to attacks that are carried out for specific purposes other than to deny sustenance. For example, this rule **would not prohibit destroying a field of crops to prevent it from being used as concealment** by the enemy or destroying a supply route that is used to move military supplies but is also used to supply the civilian population with food.*

The UK Army manual¹³¹ is even more explicit:

*Siege is a legitimate method of warfare as long as it is directed against enemy armed forces.*¹³²

It emphasizes that if civilians are permitted to evacuate, the obligation to allow the entry of food is waived:

*In those circumstances, consideration may be given to allowing all civilians and the wounded and sick to leave the besieged area. **He would then be able to prevent food as well as other supplies from reaching the defending troops and he would be less circumscribed in attacking them.***¹³³

The UK manual also states that this remains valid even if civilians do not evacuate:

*The military authorities of the besieged area might decide **not to agree to the evacuation of civilians or the civilians themselves might decide to stay where they are.** In those circumstances, so long as the besieging commander left open his offer to allow civilians and the wounded and sick to leave the besieged area, **he would be justified in preventing any supplies from reaching that area.***¹³⁴

A significant legal anchor for the view that siege practices are not inherently illegal, even if challenging to implement, is Article 23 of the 1949 Geneva Convention IV, which states that:¹³⁵

Each High Contracting Party shall allow the free passage of all consignments of medical and hospital stores and objects necessary for religious worship intended

¹²⁹ Ibid footnote 743

¹³⁰ Ibid 5.19.3

¹³¹ <https://assets.publishing.service.gov.uk/media/5a7952bfe5274a2acd18bda5/JSP3832004Edition.pdf>

¹³² Ibid 5.34.1

¹³³ Ibid 5.34.2

¹³⁴ Ibid, 5.34.3

¹³⁵ <https://ihl-databases.icrc.org/en/ihl-treaties/gciv-1949/article-23?activeTab=1949GCs-APs-and-commentaries>

only for civilians of another High Contracting Party, even if the latter is its adversary. It shall likewise permit the free passage of all consignments of essential foodstuffs, clothing and tonics intended for children under fifteen, expectant mothers and maternity cases.

The obligation of a High Contracting Party to allow the free passage of the consignments indicated in the preceding paragraph is subject to the condition that this Party is satisfied that there are no serious reasons for fearing:

(a) that the consignments may be diverted from their destination, (b) that the control may not be effective, or (c) that a definite advantage may accrue to the military efforts or economy of the enemy through the substitution of the above-mentioned consignments for goods which would otherwise be provided or produced by the enemy or through the release of such material, services or facilities as would otherwise be required for the production of such goods.

The 1958 interpretation of this article's provisions explicitly states that the reservation allowing the prevention of aid shipments to the civilian population—if there were reasonable grounds to suspect diversion, or if the aid would confer a distinct advantage to the enemy—was a condition many countries required before accepting the article. Therefore, it cannot be claimed that the signatories to the convention were unaware of the potential for humanitarian aid to be misused by rival armed forces.¹³⁶

As outlined, Hamas has extensively diverted humanitarian aid to sustain its fighters. Regardless of one's view on the advisability of such a siege, the circumstances in northern Gaza between November 6 and November 24, 2023, must be carefully taken into account in any legal and ethical assessment. The practice of withholding food under these conditions, regardless of legal or moral stance, falls at least within the realm of acceptable legal interpretation and actual state practice. It should also be noted that Israel's Supreme Court ruling on IDF policy toward northern Gaza explicitly rejected the legal framework of occupation law, which obligates an occupying power to meet the needs of the occupied population.¹³⁷

The existence of a legal framework accommodating Israel's practices does not, of course, diminish the importance of addressing the more serious allegations raised by the ICC, UN agencies, and human rights organizations—that there was an intent to starve and kill Gaza residents, even if there is no evidence that such intent succeeded. We will explore this issue in the next section.

J. Intention to Starve

A fundamental principle of criminal law requires establishing that a prohibited act (*actus reus*) was committed, that the requisite mental state (*mens rea*)—whether intent, negligence, or recklessness—was present, and that a causal nexus exists between these elements.

The Rome Statute of 1998, which established the International Criminal Court (ICC) in The Hague, mandates under Article 30 that the accused must have intended to commit the crime or, at minimum, been aware of the substantial likelihood of the consequences of their actions to satisfy the mental element (*mens rea*)

¹³⁶ Jean Pictet 's commentary, <https://ihl-databases.icrc.org/en/ihl-treaties/gciv-1949/article-23/commentary/1958?activeTab=1949GCs-APs-and-commentaries>, p.178

¹³⁷

https://gisha.org/UserFiles/File/LegalDocuments/HCPetition2024/Aid_petition_court_verdict_Heb_27_0325.pdf ,

required for criminal responsibility.¹³⁸ The question of the ICC's jurisdiction aside¹³⁹, establishing the mental element for the crime of intentional starvation is exceptionally challenging, as it requires meeting a high evidentiary standard to prove specific intent.

Meeting this standard would necessitate evidence that Israeli military and civilian leaders deliberately (or at least knowingly) aimed to starve civilians or withhold essential resources for their survival, in the clear knowledge that such measures would almost certainly result in the deaths of many civilians by starvation. As demonstrated in this chapter, and as will be shown in Chapter 5's exploration of casualty figures, it is impossible to claim such clear knowledge in hindsight — because there are no indications or even claims from the Palestinian Ministry of Health of widespread non-traumatic deaths. Nor has Spagat and Shikaki's family survey indicated such widespread mortality.

Nonetheless, despite the special obligation to establish specific intent, those alleging intentional starvation rely almost exclusively on statements made by Israeli officials immediately after the October 7, 2023 massacre (Gallant on October 9, Netanyahu on October 18):¹⁴⁰

- The widely criticized statement by then-Defense Minister Gallant on October 9, 2023, announcing a total siege on all of Gaza and describing Israel's enemies as "human beasts"—a term that, prior to October 7, was commonly understood to denote individuals who had forsaken their humanity toward others, and which in Israeli Hebrew has since become associated with the Nazis¹⁴¹)—has been widely cited by the ICC, ICJ, Amnesty, HRW, and others. However, this is a misquotation. Gallant referred only to denial of aid to Gaza **City**, then under evacuation orders (see Figure 12).¹⁴²

- The legality of denying aid to residents of northern Gaza—who were offered the option to evacuate to other parts of the Strip—is a distinct issue governed by the applicable laws of siege. Israel's position, as well as the doctrine of US, UK, and other armies' combat manuals¹⁴³, is that basic aid can be withheld from besieged areas if civilians are allowed to evacuate. Israel seized the land route to southern Gaza on November 6 but continued to allow civilians to leave. Regardless of the legality or morality of blocking aid, under the written interpretations of the laws of war, preventing supplies from entering an area where civilians have the option to evacuate does not, in itself, constitute intent to starve civilians.

¹³⁸ Rome Statute of the International Criminal Court, §30 <https://www.icc-cpi.int/sites/default/files/2024-05/Rome-Statute-eng.pdf>

¹³⁹ - <https://www.icc-cpi.int/sites/default/files/CourtRecords/0902ebd180b5913d.pdf>

¹⁴⁰ 39 עמ' (9.3.2025-ל), (מעודכן ל-9.3.2025), "עדות על מלחמת חרבות ברזל",

¹⁴¹ <https://www.morfix.co.il/%D7%97%D7%99%D7%AA%20%D7%90%D7%93%D7%9D>

¹⁴² <https://www.youtube.com/watch?v=ZbPdR3E4hCk>

¹⁴³ <https://media.defense.gov/2023/Jul/31/2003271432/-1/-1/0/DOD-LAW-OF-WAR-MANUAL-JUNE-2015-UPDATED-JULY%202023.PDF> 5.9.13



Figure 12: Gaza the City, not the entirety of the Strip

Youtube, public domain. <https://www.youtube.com/watch?v=ZbPdR3E4hCk>

Similarly, Netanyahu's statement on October 18, 2023, that "we will not allow humanitarian aid in the form of food and medicines **from our territory** into Gaza" does not imply an intent to prevent aid from Egypt via the **Rafah Crossing** — aid that **did** enter three days later after security arrangements were set in place.

¹⁴⁴ It also did not refer to water, which Israel resumed pumping into Gaza even before Netanyahu's statement. ¹⁴⁵ Rather than interpreting this as intent to starve the residents of Gaza, one should read Netanyahu's statement as an attempt to justify the forthcoming aid entry into Gaza via Rafah to an outraged Israeli public.

In this context, it is worth noting a peculiar claim made by the ICC prosecutor and cited by various sources:

*This [the deprivation of objects necessary to human survival] occurred through the imposition of a total siege over Gaza that involved completely closing the three border crossing points, **Rafah**, **Kerem Shalom** and **Erez**, from 8 October 2023 for extended periods.*

Israel did not, of course, control the Rafah crossing between Egypt and Gaza until May 2024 and had no ability to close it "completely" before then. In fact, its closure after that date resulted from a decision **by Egypt** ¹⁴⁶ not to allow activity when the Gazan side was under Israeli control — a decision not publicly condemned or challenged by the ICC, HRW, Amnesty, the UN, or any national government, as far as we are aware.

The initial closure of the Israel-Gaza crossings and the disruption of essential services were primarily caused by the October 7 attack, during which Hamas destroyed the Erez and Kerem Shalom crossings, killed

¹⁴⁴ <https://www.axios.com/2023/10/18/gaza-humanitarian-aid-entry-israel-netanyahu-biden>

¹⁴⁵ Yuval Shani and Amichai Cohen, "The Prosecutor's Uphill Legal Battle? The Netanyahu and Gallant ICC Arrest Warrant Requests", The Israeli Democracy Institute, 26.5.2024, <https://en.idi.org.il/articles/54233>

¹⁴⁶ <https://www.bbc.com/news/world-middle-east-69012303>

workers and soldiers, and damaged critical infrastructure, including nine out of ten power lines and one of three water lines supplying Gaza from Israel.¹⁴⁷ Given the damage inflicted by Hamas and ongoing fighting on the Israel-Gaza border, Israel did not have the capacity to allow humanitarian aid entry immediately after the attack. Therefore, the declaration of a “total siege” during the initial days—which was rescinded within a week—had no practical effect, particularly in light of existing food stockpiles and Gaza’s independent power and desalination facilities.¹⁴⁸

As discussed, any initial inclination by the Israeli public or decision makers to starve the residents of the Gaza Strip, even if it existed, was simply not reflected in actual practice. Within a week of the October 7 massacre, Israel restored pipelines **damaged by Hamas** and enabled water to flow again by October 15. By October 21, Israel re-took and restored the Kerem Shalom crossing **destroyed by Hamas**, amid ongoing fighting. It reached agreements with Egypt on aid inspection at Kerem Shalom before the trucks could enter via Rafah without Hamas making any commitment to cease attacks on crossings, abstain from aid diversion, or restrain itself from exploiting the humanitarian corridors for military purposes. Rocket fire on IDF troops guarding Kerem Shalom, which killed four soldiers on May 5, 2024, preceded the Israeli incursion into Rafah. The ICC, ICJ, aid organizations, Amnesty, HRW, and others characterized this operation as a potential humanitarian catastrophe caused by a collapse in aid entry. However, as we have demonstrated, the reality was different: total food aid to Gaza **increased** during May 2024 and remained higher than pre-war levels between June and September 2024, as UNRWA’s “retroactive corrections” in November 2024 also confirm.

In conclusion, we reiterate that Israel’s legal obligation to allow aid to Gaza’s civilians is not absolute. As noted above and explicitly in Article 23 of the Geneva Convention IV (1949), if there is reasonable suspicion that aid is not intended for civilians but is diverted to Hamas fighters or used indirectly to maintain its control and gain military advantage (through sale or diversion to families or supporters), then the occupying power has a legal right to prevent aid from entering until conditions are met to eliminate such risks.

This is in line with UK and US legal theory and practice, manifested during the siege of Mosul and elsewhere. Hamas has never provided guarantees that aid would not be exploited for military purposes. Reports from released hostages show that Hamas’s captors consumed aid while starving their captives.¹⁴⁹ While some legal interpretations argue that aid denial must meet necessity and proportionality standards, this does not mean that aid denial based on the absence of guarantees against its diversion constitutes intention to starve civilians. Rather, this represents legitimate intention to prevent supplies from reaching combatants, even if this does not comply with prevalent interpretations of the principle of proportionality.

K. Allegations of IDF Targeting of Hamas Police to Prevent Food Distribution and Starve the Population

Many have accused Israel of failing to distinguish between Hamas’s governmental functions, including the “civilian” police, and the armed wing of the organization. They claim that Israel should have allowed Hamas police, who are armed and directly subordinate to Hamas’s military leadership, to escort, guard and manage humanitarian aid distribution, assuming aid would reach only civilians and not Hamas operatives.¹⁵⁰ Notably, this is anything but standard humanitarian practice. Aid organizations explicitly rejected the Assad regime’s escort of aid during the Syrian civil war¹⁵¹, just as they had earlier opposed coalition-supported

¹⁴⁷ Shani and Cohen, "The Prosecutor's Uphill", <https://en.idi.org.il/articles/54233>

¹⁴⁸ Ibid;

¹⁴⁹ https://www.timesofisrael.com/liveblog_entry/freed-hostage-eli-sharabi-tells-un-security-council-how-hamas-steals-un-aid-to-eat-like-kings-and-starve-the-hostages/

¹⁵⁰ לי מרדכי, "עדות על מלחמת חרבות ברזל", (מעודכן ל-9.3.2025), ע"ע 29-30.

¹⁵¹ <https://peacerep.org/2023/08/09/humanitarian-aid-armed-groups/>

Iraqi and Afghan security for aid distribution¹⁵². To do otherwise would be, and is in Gaza, a breach of the humanitarian principles of neutrality and impartiality. Moreover, these critics completely ignore Hamas's organizational structure: in previous conflicts, it was proven that many police officers—especially senior officers—are also members of Hamas's military wing.¹⁵³

Lee Mordechai, for example, adopts Hamas's claim that Shifa Hospital served as a humanitarian aid distribution center, and even claims that the IDF raid aimed to disrupt aid efforts.¹⁵⁴ This ignores the clear position of donor countries that formally oppose Hamas's involvement in aid management.¹⁵⁵ Critics also disregard solid intelligence from the IDF indicating that during the raid, senior Hamas military figures were arrested or killed inside the hospital.¹⁵⁶

The presence of these armed senior figures, along with armed police officers abusing the protected status of the hospital, demonstrates a clear blurring of Hamas's civilian and military authorities, especially when police officers are also members of the movement's armed wing.

It should be noted that to the best of our understanding, despite these incidents, Israel has not made an official decision to classify Hamas's entire police organization as a terrorist organization, and the treatment of police officers depends solely on their individual actions and affiliation with Hamas's armed wing, not their police affiliation.

L. Securing Aid Convoys and the “Flour Massacre”

As we have demonstrated, the recorded quantities of aid documented in UN warehouses and distribution centers—based on data collected by Gazan staff and followed by “retrospective corrections”—exceed the total aid that was available in Gaza before the war, including local agricultural production. Even greater volumes were reported entering Gaza by COGAT.

Some aid not recorded by UNRWA was transported by private-sector trucks and likely sold in Gaza's markets—otherwise, the private sector would lack the economic incentive to continue importing it. However, a significant portion of aid was looted or diverted during delivery, for a variety of reasons:

- theft by Gazan aid workers;
- seizure by Hamas for storage or sale;
- transfer of some shipments as “taxes” to local families and criminal organizations;
- unofficial looting by various actors.

We note that when Hamas diverts aid, it is difficult to distinguish between confiscation and other forms of loss because Hamas controls most government, military, and police institutions, both official and unofficial, and is deeply embedded in the humanitarian organizations themselves.

Lee Mordechai refers to the event known as the “Flour Massacre” (February 29, 2024) on Rashid Street in Gaza as stemming from an Israeli attempt to supply and secure aid convoys “through a Gazan clan.”¹⁵⁷ Mordechai does not mention, of course, the fate of the heads of the Daghmesh clan, who held meetings with Israeli representatives regarding aid shipments in March 2024 and were subsequently murdered by Hamas¹⁵⁸.

¹⁵² <https://www.manchesterhive.com/view/journals/jha/5/3/article-p23.xml>

¹⁵³ https://www.terrorism-info.org.il/Data/articles/Art_20445/H_255_12_2055059554.pdf

¹⁵⁴ לי מרדכי, “עדות על מלחמת הרבות ברזל”, (מעודכן ל-9.3.2025), עמ' 29.

¹⁵⁵ https://www.youtube.com/watch?v=MEYGrzsmLrc&ab_channel=ThePrint

¹⁵⁶ <https://www.idf.il/187362/>

¹⁵⁷ לי מרדכי, “עדות על מלחמת הרבות ברזל”, (מעודכן ל-9.3.2025), עמ' 29.

¹⁵⁸ <https://www.ynet.co.il/news/article/hjtejxlr6>

Nor does he mention the arrests and executions of Palestinian Authority officials who came to northern Gaza to provide security for aid convoys.¹⁵⁹

From this starting point, Mordechai asserts—reflecting the tone of his sources—that Israel is simultaneously responsible for securing aid convoys and culpable for the deaths of looters attempting to rob or attack those convoys protected by the IDF. In assigning responsibility, he fails to distinguish between individuals who were trampled “while fleeing Israeli fire,” as reported by a Wafa News Agency journalist present at the scene; those killed by unknown gunmen, as claimed by the IDF; or those killed by IDF fire, as asserted by the Gaza Ministry of Health.¹⁶⁰

Our position is that Hamas bears responsibility for obstructing the establishment of alternative systems for securing and distributing food. While Israel is obligated to plan ahead and improve the implementation of aid distribution channels free from Hamas control, it is neither valid nor logically consistent to hold Israel solely responsible for protecting food convoys from looters and then oppose the use of force against those who threaten aid deliveries. In practice, following the “Flour Massacre,” Israel chose not to secure aid convoys, while Hamas, through brutal assassinations, prevented local actors and Palestinian Authority representatives from safeguarding the aid. Thus, Hamas’s monopoly over aid distribution was established, creating the context for subsequent unequal distribution and diversion of aid.

As Hamas leader Mousa Abu Marzouk stated at the beginning of the war, “We are not responsible for Gaza’s civilians. Israel and the UN are responsible.”¹⁶¹ Given this explicit Hamas stance, as well as the evidence we presented in Section H of this chapter, any attempt to treat their forces as aid protectors rather than looters is disingenuous.

I. Claims of Starvation after the End of the Second Ceasefire in March 2025

During the ceasefire from January 18 to March 2, Gaza received a flood of aid consisting of 25,200 trucks carrying 447,538 tons of supplies, 77.8% of which was food. However, from March 2 to May 19, 2025, Israel blocked the entry of aid into Gaza—while maintaining water and electricity supplies—with the explicit goal of pressuring Hamas to release additional hostages and replacing the existing UNRWA-controlled aid mechanism with a new, secure system led by the Gaza Humanitarian Foundation (GHF), designed to prevent the theft and monetization of aid by Hamas.

Aid deliveries resumed on May 19 following intense international pressure and warnings from the IDF that the ongoing blockade would result in severe hunger.¹⁶² As of May 27, aid was resumed, though in insufficient quantities. On May 24, GHF also began operating distribution points in southern and central Gaza, distributing 16 million meals as of June 11.¹⁶³

Our position was, and remains, that total aid denial, even for legitimate reasons such as securing hostage release, was a grave mistake. This error was further exacerbated by statements by some government ministers linking aid blockage to illegitimate goals such as encouraging migration from Gaza.

While developing distribution channels that Hamas cannot loot or monopolize is a legitimate goal, it was wrong to block aid routes before a sufficient alternative was established and tested. Nonetheless, during the ceasefire until early March, 345,947 tons of food entered Gaza, according to COGAT.¹⁶⁴ Given that the

¹⁵⁹ <https://www.newarab.com/news/hamas-led-authorities-accuse-pa-trying-infiltrate-gaza>

¹⁶⁰ <https://edition.cnn.com/2024/04/09/middleeast/gaza-food-aid-convoy-deaths-eyewitness-intl-investigation-cmd/index.html>

¹⁶¹ <https://www.timesofisrael.com/top-hamas-official-claims-group-is-not-responsible-for-defending-gazan-civilians/>

¹⁶² <https://www.nytimes.com/2025/05/13/world/middleeast/gaza-famine-starvation-israel.html>

¹⁶³ https://www.timesofisrael.com/liveblog_entry/ghf-says-it-distributed-34000-boxes-of-food-today-in-gaza-its-highest-one-day-total/

¹⁶⁴ <https://gaza-aid-data.gov.il/main/>

World Food Program estimated that 116,000 tons would suffice to feed one million people for four months¹⁶⁵, this amount should have been enough to sustain the Gaza population (approximately 1.95 million per Palestinian Central Bureau of Statistics in Ramallah) for at least 183 days — until late July or early August 2025.

It is important to note that all aid delivered during the ceasefire was classified as humanitarian, with no involvement from the private sector, and that Israel refrained from targeting Hamas policemen “escorting” these convoys during this period. Aid organizations strongly denied any aid diversion by Hamas, claiming their warehouses were secure¹⁶⁶ — as they maintained throughout the conflict.¹⁶⁷ There is no way to reconcile this denial of aid diversion with reports from those organizations about stock depletion as early as April 2025¹⁶⁸, alongside the sale of donated commodities in Gaza’s markets during the ceasefire and influx of aid.¹⁶⁹

UNRWA’s inability to distribute aid effectively to less-connected families suggests that merely increasing aid quantities would not necessarily eliminate local shortages. This is largely because such shortages represent a crucial financial interest for Hamas. Without them, Hamas would lose the ability to sell aid to residents who depend on humanitarian assistance.

At the political-military level, the very existence of shortages — which critics blame on Israel regardless of actual aid volume — reinforces Hamas’s position. The reports of near shortages immediately after the ceasefire demonstrate the failure of UNRWA’s aid distribution system and its infiltration by Hamas, emphasizing the need for an alternative, secured aid mechanism, both to defeat Hamas and to prevent humanitarian disasters.

To conclude, there is evidence of food shortages between late April and May 19, 2025, at least among impoverished and disconnected families. While we strongly sympathize with their suffering, the claims made during that period by the UN were characterized by the same problematic practices outlined earlier — exaggerated alarmist claims and catastrophic headlines followed by quiet retractions and muted acknowledgments of errors. For example, UN senior official Tom Fletcher claimed that 14,000 children would die within 48 hours if aid was not resumed (after it had already been resumed).¹⁷⁰ This claim was false even according to the IPC forecast on which it was based, which covered the period from April 2025 to March 2026. Nonetheless, the retraction of the claim was characterized by cautious language and ambiguous admission of error—a pattern that often leads to the persistence of repeated mistakes echoed by sensational headlines.

¹⁶⁵ <https://www.wfp.org/news/wfp-runs-out-food-stocks-gaza-border-crossings-remain-closed>

¹⁶⁶ <https://apnews.com/article/israel-gaza-war-aid-groups-89068e30fe90e8c13a6203836945b122>; “the United Nations and aid groups deny there is significant diversion.” <https://www.facebook.com/watch/?v=703431708742576> “we have seen no aid diversion”

¹⁶⁷ <https://www.unrwa.org/newsroom/official-statements/remarks%E2%80%AF-unrwa-commissioner-general-philippe-lazzarini%E2%80%AF-occupied> - “UNRWA does not let aid be diverted.”;

¹⁶⁸ <https://news.un.org/en/story/2025/04/1162666>

¹⁶⁹ <https://fscluster.org/sites/default/files/2025-04/Gaza%20Market%20Monitor%2C%20April%202025.pdf>

¹⁷⁰ <https://www.bbc.com/news/videos/cdr550j818po> : “There are 14,000 babies that will die in the next 48 hours unless we can reach them.”. When asked where he got that “extraordinary figure,” Fletcher said that the UN had teams on the ground and at medical centers and schools trying to assess needs.

Chapter Two: The Missing Context: Urban Warfare and Hamas's Human Shields Strategy

Summary

This chapter addresses the crucial context necessary for understanding Israeli military action during the Israel-Gaza War. This war represented one of the most complex, multidimensional cases of urban warfare in modern military history. Hamas combined the resources, equipment and manpower of a regular army with irregular strategy and tactics. This was not an option of last resort, but a deliberate plan based on fighting positions and infrastructure constructed over more than a decade. Hamas operations and pre-prepared positions were deliberately collocated with and within civilian infrastructure, purposely exploiting the Gazan population as human shields. This chapter reviews various historical cases of urban battles around the world (Grozny, Mosul, Marawi, Bakhmut, Fallujah, and others) and demonstrates that all armies faced with the challenge of overcoming enemies entrenched in an urban environment, Western armies included, resorted to carrying out heavy bombing and inflicted massive destruction of entire cities, even in cases where efforts were made to reduce harm to civilians.

Notably, while the priority given by the attacker to minimizing civilian casualties plays a role in determining the outcome, the strategy and tactics of the defender, as well as the decisions of the civilian population itself, could play an even greater role. Thus, for example, the Russian army showed little concern for civilian lives in its grinding years-long invasion of Ukraine. This invasion was characterized, moreover, by many see-saw, bloody urban combat settings, and the invader suffered many casualties – always a driver for military atrocities. Nonetheless, the Russian army inflicted proportionately fewer civilian casualties than Coalition forces did during their invasion of either Iraq or Afghanistan – let alone during the siege of Mosul. The relative sparing of civilians in Ukraine was not the result of Russian adherence to IHL. Rather, it was primarily the result of the strategic priority placed by the Ukrainian armed forces and government on evacuating their citizenry from combat zones and urging them to flee the Russian zone of occupation. In contrast, the Battle of Grozny resulted in the deaths of thousands of civilians because neither the Russian army nor the insurgents paid any heed to the presence of civilians. Ironically, it was ethnic Russian civilians who paid a disproportionate portion of the butcher's bill, regardless of the intentions of Russian artillery, since they lacked nearby countryside relatives to flee to.

In the 2023-2025 Gaza war, urban combat conditions were uniquely horrific. Hamas deliberately built an enormous tunnel system—estimates suggest over 500 km of tunnels with about 5,700 shafts, more than the Viet Cong in the Vietnam War—integrated within densely populated urban areas. Some tunnel entrances were hidden inside children's rooms and civilian homes, while others were booby-trapped.

Hamas fighters operated among the civilian population, sometimes disguised as civilians and even as women, using public and residential buildings. Hospitals, homes, schools, clinics, mosques, and UNRWA facilities were used to conceal prepositioned command posts, weapons, and tunnel entrances. Throughout this chapter, we show that any area in which the IDF formally cleared and defeated Hamas's formations could easily be infiltrated by militants. The proliferation of shafts, prepositioned IEDs, and concealed fighters and combat infrastructure meant that ostensible IDF control over a given area could not prevent a resurgence of danger. A recognition of the extraordinary operational complexity generated by this situation must serve as the factual starting point for any

discussion about legal and moral obligations to distinguish between combatants and civilians, minimize civilian harm, provide or secure aid to civilians in combat zones.

To understand the 2023- 2025 Israel-Gaza War one must first explore its military context: urban warfare. This issue will be addressed in this chapter, an essential introduction to Chapters 3–5, which address the circumstances and scope of the deaths inflicted by IDF fire on Gazan civilians and combatants.

Researchers estimate that since 2008, for the first time in history, the majority of the world’s population lives in cities.¹⁷¹ Urban areas have expanded significantly, making it very difficult to bypass cities. Urban combat is considered one of the most difficult types of fighting, even when civilians are evacuated or when the attacking force has no moral or legal constraints concerning them.¹⁷²

Urban terrain characteristics provide the defender with innate advantages: the city is a three-dimensional space, where threats can come from above or below. The US military stated that “volume, not area,” is the more relevant spatial measure of the urban environment, since capturing a ten-story building, for example, equates to conquering a territory more than ten times larger than the surface covered by the building itself. Even a small city contains a large area due to its three-dimensional nature.¹⁷³ Moreover, this area is generally intimately familiar to the defenders, whereas for the attackers it is terra incognita.

Approximately 90% of firefights in modern urban battles have occurred between forces no more than 50 meters away from one another.¹⁷⁴ Such a setting reduces the advantage of both advanced weaponry and numerical superiority. Some weapons may face unique problems, such as electrical cables that limit the use of certain anti-tank missiles for fear of electrocuting the operator, or minimum ranges that are too large for effective use in urban terrain.¹⁷⁵ Other weapons designed for open-field armored combat are also less effective for urban warfare objectives.¹⁷⁶ Tanks are particularly vulnerable because their firing angles are limited, and they are surrounded by dead space—something less problematic in open terrain but which allows enemies in built-up areas to approach and attach explosive devices or throw grenades and IEDs from elevated positions without the tank being able to detect the threat.¹⁷⁷

Due to short engagement ranges and the enemy’s ability to approach from any direction, including from behind recently captured buildings, tunnels, basements, and beneath debris, urban combat offers almost no safe zones. These factors often enable a weaker force to effectively delay a more skilled and larger force and disrupt maneuver operations. This is why, after World War II, a "doctrinal norm" developed requiring a six-to-one superiority in attacking urban areas.¹⁷⁸ Indeed, urban combat requires a much larger number of forces

¹⁷¹ UN Commission on Population and Development, "World urbanization to hit historic high by year’s end, Under-Secretary-General says as commission on population and development opens forty-first session", UN Press Release POP/961, 7 April 2008, <https://press.un.org/en/2008/pop961.doc.htm>; Hannah Ritchie, Veronika Samborska and Max Roser, "Urbanization", *Our World In Data*, February 2024, <https://ourworldindata.org/urbanization>

¹⁷² John Spencer, "The City Is Not Neutral: Why Urban Warfare Is So Hard", *Modern War Institute at West-Point*, 2020,

¹⁷³ Joint Publication 3-06, *Joint Urban Operations*, Washington DC: Joint Chiefs of Staff, 2013, p. I-3.

¹⁷⁴ FM-3-06-11, *Combined Arms Operations in Urban Terrain*, Washington DC; Department of the Army, 2002, pp. 1-17 – 1-18

¹⁷⁵ *Ibid.*, pp. 1-18 – 1-19, 7-17

¹⁷⁶ Mickel Weissmann, "Urban Warfare: Challenges of Military Operations on Tomorrow's Battlefield", in Mikael Weissmann and Niklas Nilsson (Eds.), *Advanced Land Warfare*, Oxford: Oxford University Press, 2023, p. 134

¹⁷⁷ *Ibid.*, pp. 4-4

¹⁷⁸ Timothy L. Thomas, s, "The Battle of Grozny: Deadly Classroom for Urban Combat," *Parameters* 29, no. 2, 1999

than open terrain.¹⁷⁹ Units separated by a street or two may be entirely disconnected and unable to support each other. A division operating in open terrain can cover several kilometers, but in urban areas, its effective control is limited to a far smaller area.¹⁸⁰ The terrain layout and the ability to find cover and concealment almost anywhere—especially in reinforced concrete buildings—transforms every city into a fortress, greatly challenging attackers and facilitating defenders. Fighting in "urban canyons" between buildings has been viewed by various armies and combat doctrines as a scenario best avoided whenever possible.¹⁸¹

However, bypassing cities is not always feasible. Armies whose plans are dependent on such maneuvers, without contingencies for urban combat scenarios, often find themselves forced into urban combat without adequate training or preparation.¹⁸² Cities have historically sat at strategic crossroads essential for supply routes, contain industrial facilities vital to seize or deny to the enemy, or serve as government centers whose capture may lead to regime collapse or weaken the enemy. There are many examples. The Battle of Berlin in 1945 was crucial for overthrowing the Nazi regime. In 1994, the Russians attempted to capture Grozny, the Chechen capital, believing its capture would lead to the fall of the insurgent Chechen government. In 2003, the Battle of Baghdad was swift with relatively few civilian casualties, as Iraqi officials and army ceased obeying Saddam Hussein once major government centers were captured.¹⁸³ In more recent years, in such battles as Ar-Raqqa (Syria), Mosul (Iraq), and Naher Al-Bared refugee camp (Lebanon), the attacking force had no choice but to clear the city by forcibly removing the enemy fighters – after the majority of the civilian population had evacuated the city, with those remaining suffering the brunt of the casualties.

Urban combat is particularly difficult when the city is populated with both fighters and uninvolved civilians. Structural problems in such fighting greatly increase the risk to civilians. This includes the difficulty for the attacking force in making split-second distinctions between combatants and non-combatants, the fact that residential and public buildings can also serve as defensive positions, and other logistical challenges related to city management.

Sometimes these challenges alone were enough to deter an invading force from attacking altogether. For example, the Prussian army opposed any attempt to capture Paris in 1870 despite its resounding victory over the French armies in the field, resorting instead to a siege and bombardment. In 1944, the Allies did not want to storm Paris before defeating the German army in France, fearing that doing so would divert an estimated eight divisions and additional troops needed elsewhere, cause heavy casualties among soldiers and friendly civilians, and result in widespread destruction. It was the initiative of Free French forces acting in collusion with the French Resistance that led to the city's "premature" liberation.¹⁸⁴ Coalition forces in 2003 initially sought to bypass Basra, instead placing it under siege, but then invaded it. In January 2025, Ukrainians reported that Russians were attempting to flank Pokrovsk and avoid fighting there, preferring a siege to an attack.¹⁸⁵

¹⁷⁹ Lou Dimarco, "Attacking the Heart and Guts: Urban Operations Through the Ages", in William G. Robertson (Ed.), *Block by Block: The Challenges of Urban Operations*, Fort Leavenworth: U.S. Army Command and General Staff College Press, 2003, p. 8

¹⁸⁰ Russel W. Glenn, *Heavy Matter: Urban Operations' Density of Challenges*, Santa Monica: Rand, 2000, pp. 3-17

¹⁸¹ Mickel Weissmann, "Urban Warfare: Challenges of Military Operations on Tomorrow's Battlefield", in Mikael Weissmann and Niklas Nilsson (Eds.), *Advanced Land Warfare*, Oxford: Oxford University Press, 2023, pp. 128-129

¹⁸² ר' למשל יגיל הנקין, ננצח או שניעלם: תולדות מלחמת צ'צ'ניה הראשונה, 1994-1996, תל אביב: מערכות, 2007, עמ' 233-239

¹⁸³ Michael R. Gordon and Bernard E. Trainor, *Cobra II: The Inside Story of the Invasion and Occupation of Iraq*, New York: Pantheon Book, 2006, pp. 446-496

¹⁸⁴ Jean Edward Smith, *The Liberation of Paris: How Eisenhower, de Gaulle, and von Choltitz Saved the City of Light*, New York: Simon and Schuster, 2019

¹⁸⁵ Censor.net, "There are no urban battles in Pokrovsk, Ruscists are trying to bypass city - OSGT "Khortytzia"", *Censor.net*, January 2, 2025, <https://censor.net/en/n3528092>; Tetanya Olynik, " Russian

In other well-known cases, war was fought despite the presence of civilians trapped in the city, some attempting to escape but caught in crossfire. For example, in the Battle of Hue in 1968, many civilians were executed by Viet Cong and North Vietnamese forces while others fell victim to crossfire or were trapped in the ruins of the city, with 80% of the buildings destroyed or damaged.¹⁸⁶

Armies often attempted to evacuate civilians from a city before either storming or defending it. Urban combat provides clear advantages to defenders even if the city is completely depopulated, while the presence of civilians adds additional moral, logistical and political complications. The extensive use of urban terrain by insurgents and terrorists after the Cold War, combined with intense coverage by mass media and social networks, ensures that military actions will be under a spotlight, and the suffering of civilians often leads to criticism of the armies and may serve insurgents' interests. This creates additional incentives for armies to try to ensure that the combat zone is civilian-free.¹⁸⁷

The Americans, who laid siege to Fallujah in 2004, changed their approach a few months later when they prepared to invade and seize the city, which at the time was estimated to contain 3,000–4,000 enemy fighters. They called on residents to evacuate before the battle and warned that if they did not, they would have to lie on the ground and hold up American-issued signs when US troops entered.¹⁸⁸ It is estimated that 70–90% of the 300,000 residents evacuated the city before the battle; this warning allowed many enemy fighters to escape, despite claims that Americans sometimes prevented fighting-age men from fleeing.¹⁸⁹ The remaining population suffered at least 580 killed, with some estimates reaching 800 or more.¹⁹⁰ The Americans and their allies suffered about 50 killed, while their enemies suffered between 1,000–1,500 killed, and a similar number were taken prisoner. About one-fifth of the city's buildings were destroyed in the fighting, and approximately 40% more were damaged.¹⁹¹

In 2017, in Marawi, a city in the Philippines, a battle took place between Philippine government forces and the "Islamic State of the Philippines" (an ISIS affiliate). Before the fighting, the city had about 200,000 residents, but almost all managed to escape or were evacuated by government forces prior to the five-month battle (May to November 2017). ISIS killed Christians attempting to flee, but almost all residents, except for 2,000 held hostage by ISIS (and rescued by Philippine forces during the battle), either escaped or agreed to evacuate due to a broad government effort, which included establishing 69 refugee camps outside Marawi. As a result, the civilian death toll was surprisingly low—estimated at fewer than 100 (compared to 165 casualties suffered by Philippine forces and about 920 ISIS fighters out of 1,000–1,200 fighters present at

forces attempt to bypass Pokrovsk from west", *Ukrainska Pravda*, January 10, 2025, <https://www.pravda.com.ua/eng/news/2025/02/10/7497616/>; Associated Press, "Russian forces bypass key stronghold to cut off supplies to Ukrainians", January 13, 2025, <https://www.voanews.com/a/russian-forces-bypass-key-stronghold-to-cut-off-supplies-to-ukrainians-/7935592.html>

¹⁸⁶ Mark Bowden, *Hue 1968: A Turning Point of the American War in Vietnam*, New York: Atlantic Monthly Press, 2017, Ch. 11

¹⁸⁷ Mark Bowden, *Hue 1968: A Turning Point of the American War in Vietnam*, New York: Atlantic Monthly Press, 2017, Ch. 11

¹⁸⁸ Patrecia Slayden Hollis, "Second Battle of Fallujah - Urban Operations in a New Kind of War", Interview with Lt. General John F. Sattler, *Field Artillery*, March-April, 2006, pp. 5-6

¹⁸⁹ Dexter Filkins and James Glanz, "With Airpower and Armor, Troops Enter Rebel-Held City", *New York Times*, November 8, 2004; Alexandr B. Downes, *Targeting Civilians in War*, Ithaca: Cornell University Press, 2008, p. 237

¹⁹⁰ Lily Hamourtzaidou, "Besieged": Living and Dying in Fallujah, *Iraq Body Count*, June 19, 2016, https://www.iraqbodycount.org/analysis/beyond/beieged_fallujah

¹⁹¹ John Spencer, Jayson Geroux, and Liam Collins, Collins, "Urban Warfare Project, Case Study Series: Case Study #7: Fallujah II", *Modern War Institute at West Point*, 25 July 2023, <https://mwi.westpoint.edu/urban-warfare-case-study-7-second-battle-of-fallujah/>

the start of the battle). Virtually all buildings in the combat zones were destroyed or damaged and over half the residents became refugees, unable to return after the fighting.¹⁹²

History also shows that civilian populations are not usually passive during conflicts. Often, civilians flee threatened cities even without prior warning. For example, during the first Chechen war, only about 100,000 of Grozny's roughly 300,000 residents remained in the city – mostly those who were unable to evacuate beforehand – and they suffered significant casualties, mainly from Russian artillery. Different researchers estimate the number of civilian deaths to date varies between 5,000 and 27,000, reflecting the difficulty in obtaining accurate data in such situations.¹⁹³

In any case, it is clear that the fighting in the city between Russian and Chechen forces disregarded the civilian population, with most casualties inflicted by Russian artillery aimed at destroying Chechen resistance or Chechen fire targeting advancing Russian forces. Similar patterns occurred in urban battles in Ukraine—such as in Bakhmut, Mariupol, and elsewhere—where civilians attempted to evacuate before or during the fighting. Ukrainian forces undertook heroic efforts to evacuate civilians from bombarded cities, though civilian presence or lack thereof did little to change the combat methods of the Russian attackers. In the Battle of Bakhmut, beginning in July 2022, evacuations started even before the battle (though after shelling had begun), and by December 2022, only 2,000 to 5,000 residents remained from an initial population of some 80,000. Thus, the civilian death toll was relatively light - 204 according to Bakhmut's mayor, some of whom were killed by Russian fire even before the ground invasion.¹⁹⁴

Defensive forces may reduce civilian risk by declaring an “open city” or “demilitarized zone”¹⁹⁵ - or else simply by withdrawing their forces entirely. The French and Belgians did this in 1940 in Paris and Brussels, respectively, as did the Germans in occupied Athens in 1944 and Hamburg in 1945. In all cases, these declarations prevented damage to the city, which was handed over to the enemy without fighting.

Another option is proactive evacuation of the population. The Soviets, for example, attempted to evacuate Stalingrad before the Germans arrived, though unsuccessfully and at heavy cost. The Germans deported many of the remaining residents and used them as forced labor.¹⁹⁶ Similarly, the Nazis ordered the evacuation of Aachen, Germany, whose pre-war population was over 150,000, as part of their preparations for combat. Ultimately, evacuation turned into disorganized flight, leaving at least 7,000 residents behind. The city was heavily damaged during the fighting, though it is difficult to estimate the extent: before the

¹⁹² John Spencer, Jayson Geroux, and Liam Collins, "Urban Warfare Project, Case Study Series: Case Study #8: Marawi", *Modern War Institute at West Point*, 23 May 2024, <https://mwi.westpoint.edu/urban-warfare-case-study-8-battle-of-marawi>; Julie McCarthy, "The Philippines' Marawi City Remains Wrecked Nearly 2 Years After ISIS War", *NPR*, June 12, 2019, <https://www.npr.org/2019/06/12/731218264/the-philippines-marawi-city-remains-wrecked-nearly-2-years-after-isis-war>; Charles Knight & Katja Theodorakis, "The Marawi crisis—urban conflict and information operations", *Australian Strategic Policy Institute*, July 31, 2019, <https://www.aspi.org.au/report/marawi-crisis-urban-conflict-and-information-operations>

¹⁹³ Henkin, *Either we Win or We Perish*, pp. 221, 290-292, 303-305

¹⁹⁴ Natalie Thomas, "Volunteers evacuate the elderly from Ukraine's Bakhmut, fearing Russian advance", *Reuters*, June 28, 2022, <https://www.reuters.com/world/europe/volunteers-evacuate-elderly-ukraines-bakhmut-fearing-russian-advance-2022-06-28/>; James Andre and Mayssa Awad, "I want to live, not just survive": Residents flee war-torn Bakhmut in eastern Ukraine", *France 24*, December 15, 2022, <https://www.france24.com/en/europe/20221215-i-want-to-live-young-couple-evacuate-war-torn-bakhmut-in-eastern-ukraine>; Olena Kolgusheva, "Олексій Рева, мер Бахмута

Ми повернемося в наше місто єдиними, незламними і загартованими війною", *UKRInform*, May 31, 2023, <https://www.ukrinform.ua/rubric-regions/3716528-oleksij-reva-mer-bahmuta.html>

¹⁹⁵ See the relevant ICRC definition - <https://casebook.icrc.org/a-to-z/glossary/demilitarized-zones> As well as article 60 of the 1st Additional protocol - [https://ihl-databases.icrc.org/en/ihl-treaties/api-1977/article-60?activeTab =](https://ihl-databases.icrc.org/en/ihl-treaties/api-1977/article-60?activeTab=)

¹⁹⁶ David M. Glantz with Jonathan M. House, *Endgame at Stalingrad: Book Two*, December 1942-February 1943, Lawrence: University of Kansas, 2014, Ch.11 .

battle, 43% of buildings had been destroyed by Allied bombing, and another 40% were damaged to some degree.¹⁹⁷ It should be noted that evacuation of this kind can also ease the defender's logistical burden—especially if supply routes are threatened—and prevent enemy agents or sympathizers using the city's population as cover, and from reporting troop locations and defenses.¹⁹⁸

To be sure, the attacking force may also benefit from evacuating civilians. For example, in Aachen, the Americans chose to evacuate all civilians from occupied territory to prevent the enemy from hiding among the population, reduce logistical and administrative burdens involved in supplying the fighting area, prevent civilian interference with combat operations, and reduce the danger to civilians in active combat zones.¹⁹⁹ However, during the actual fighting, the United States Army pursued a policy of demolishing the city to neutralize German defenders, even at the cost of civilian casualties – which would have been far more severe had the city not been largely evacuated before the battle.

During the siege of Mariupol in Ukraine in 2022, fierce fighting severely affected civilians. They encountered difficulties in evacuating, and each side accused the other of using civilians as human shields and preventing evacuations.²⁰⁰ And yet, the number of civilians who remained in the city was not large compared to other cases. The UN estimated that out of over 400,000 pre-war residents, approximately 350,000 were evacuated or fled, while at least 1,348 civilians, 70 of them children, were killed.²⁰¹ The Ukrainians, in contrast, claimed that the civilian death toll reached 25,000 (including between 5,000 and 7,000 buried under rubble).²⁰² Some estimates were even higher.²⁰³ The city itself was completely

¹⁹⁷ Liam Collins, Jayson Geroux, and John Spencer, "Urban Warfare Project Case Study Series, Case Study #10: Aachen," *US Military Academy, West Point*, 17 December 2024, <https://mwi.westpoint.edu/urban-warfare-project-case-study-10-battle-of-aachen>; Robert W. Baumer, *Aachen: The U.S. Army's Battle for Charlemagne's City in World War II*, Mechanicsburg: Stackpole, 2015, pp. 14-18; Christopher R. Gable, "'Knock 'em All Down': The Reduction of Aachen, October 1944", in , Robertson (Ed.), *Block by Block*, p. 82; Charles Whiting, *Bloody Aachen*, Ilkley: Sapere Books, 1976, p. 19

¹⁹⁸ Field Manual 3-06, *Urban Operations*, Washington (DC): Department of the army, October 2006, p. 8-14

¹⁹⁹ Louis A. Dimarco, *Concrete Hell: Urban Warfare from Stalingrad to Iraq*, Oxford: Osprey, 2012, pp. 59-60

²⁰⁰ Joel Gunter, " Siege of Mariupol: Fresh Russian attacks throw evacuation into chaos ", *BBC Online*, March 5, 2022, <https://www.bbc.com/news/world-europe-60629851> ; RFE/RL, " Ukraine Says Russia Is Blocking Aid To Mariupol, Civilians Still Trapped", April 01, 2022, <https://www.rferl.org/a/ukraine-russia-blocking-mariupol-aid/31781075.html>;

²⁰¹ Michele Bachelet, " High Commissioner updates the Human Rights Council on Mariupol, Ukraine", *UN Office of the High Commissioner for Human Rights*, June 16, 2022, <https://www.ohchr.org/en/statements/2022/06/high-commissioner-updates-human-rights-council-mariupol-ukraine>; Hilary Anderson, " The agony of not knowing, as Mariupol mass burial sites grow", *BBC Online*, November 7, 2022, <https://www.bbc.com/news/world-europe-63536564>; Uppsala Conflict Data Program,

Department of Peace and Conflict Research, "Ukraine", <https://ucdp.uu.se/country/369>, Accessed February 26, 2025

²⁰² Michele Bachelet, " High Commissioner updates the Human Rights Council on Mariupol, Ukraine", *UN Office of the High Commissioner for Human Rights*, June 16, 2022, <https://www.ohchr.org/en/statements/2022/06/high-commissioner-updates-human-rights-council-mariupol-ukraine>; Hilary Anderson, " The agony of not knowing, as Mariupol mass burial sites grow", *BBC Online*, November 7, 2022, <https://www.bbc.com/news/world-europe-63536564>; Uppsala Conflict Data Program,

Department of Peace and Conflict Research, "Ukraine", <https://ucdp.uu.se/country/369>, Accessed February 26, 2025

²⁰³ Michele Bachelet, " High Commissioner updates the Human Rights Council on Mariupol, Ukraine", *UN Office of the High Commissioner for Human Rights*, June 16, 2022, <https://www.ohchr.org/en/statements/2022/06/high-commissioner-updates-human-rights-council-mariupol-ukraine>; Hilary Anderson, " The agony of not knowing, as Mariupol mass burial sites grow",

destroyed; about 90% of residential buildings and 60% of private homes were damaged or destroyed during the fighting.²⁰⁴

Of course, there are also cases where the goal of fighting is specifically the expulsion of a rival ethnic group. An example is the siege of Sarajevo in 1992.²⁰⁵ Such wars form the basis of the concept of “new wars,” wherein the civilian population is targeted from the outset. When ethnic cleansing is involved, military considerations become secondary to this goal.²⁰⁶

However, in the post-World War II era and especially after the Cold War, it was the defenders, and particularly defenders who were not regular armed forces, that prevented civilians from evacuating.²⁰⁷ In such asymmetrical conflicts, the irregular party typically does not adhere to military identification (uniforms, symbols, etc.), which increases the military benefit to that party of retaining the civilian population in order to provide shelter and concealment. Indeed, these benefits, and the ancillary political benefits of high civilian casualties, may offer the only way it can overcome its inferiority in weaponry and resources.

Blending into the population complicates the targeting of irregular combatants, reducing their incentive to proactively evacuate civilians and indeed strengthening their incentive to keep civilians in the combat zone.²⁰⁸ **Paradoxically, the greater the external and internal constraints imposed on the invading party to reduce harm to civilians, the greater the incentive of the defender to put civilians in harm’s way.** For example, during the Polish uprising in Warsaw against the Nazis in 1944, there was little point in fighters blending into the civilian population, as the Nazis indiscriminately slaughtered civilians anyway. Nor would such a strategy have offered much advantage to Ukrainian soldiers or Chechen insurgents facing Russian forces. However, when Western armies try to distinguish between combatants and non-combatants, blending into the population reduces the risk to enemy fighters defending urban areas. Ironically, it may well be that Western sensibilities to civilian casualties not only incentivize civilian shielding and camouflage practices but result in worse outcomes for civilians.

For instance, the Taliban in Afghanistan was repeatedly accused of using civilians as human shields and preventing their escape from combat zones.²⁰⁹ Sometimes, this resulted in significant civilian casualties

BBC Online, November 7, 2022, <https://www.bbc.com/news/world-europe-63536564>; Uppsala Conflict Data Program,

Department of Peace and Conflict Research, "Ukraine", <https://ucdp.uu.se/country/369>, Accessed February 26, 2025

²⁰⁴ Bachelet, op. cit.

²⁰⁵ Richard C. Hall, "Sarajevo, Siege of, 1992–1995", in Richard C. Hall (Ed.), *War in the Balkans*, Santa Barbara: ABC-CLIO, 2014, p. 265;

²⁰⁶ Mary Kaldor, "In Defense of New Wars", *Stability: International Journal of Security and Development* 2 (1), 2013, pp. 2-3

²⁰⁷ Siri Aas Rustad, "Conflict Trends: A Global Overview, 1946–2023". PRIO Paper. Oslo: PRIO, 2024, <https://www.prio.org/publications/14006>

²⁰⁸ Mao Tse Tung, *On Guerilla Warfare*, New York: Prager, 1961, Ch 6

²⁰⁹ Terry Friel, "Taliban flee battle using children as shields – NATO", *Reuters*, August 10, 2007, <https://www.reuters.com/article/economy/taliban-flee-battle-using-children-as-shields-nato-idUSISL291396/>; AFP, "Taliban accused of using human shields in war-torn Swat", *France 24*, 19 May 2009,

<https://www.france24.com/en/20090519-taliban-accused-using-human-shields-war-torn-swat;>

Richard Norton-Taylor, "Taliban using human shields, says Afghan army general", *The Guardian*, 17 February 2010, <https://www.theguardian.com/world/2010/feb/17/taliban-human-shields>;

Ashfaq Yusufzai, "Taliban Setting Up Human Shields", *IPS*, 4 June 2012, <https://reliefweb.int/report/pakistan/taliban-setting-human-shields>;

Benjamin Jensen, " Hamas isn't the First Military Group to Hide Behind Civilians as a Way to Wage War", *American University, Washington DC*, November 16, 23, <https://www.american.edu/sis/news/20231116-hamas-isnt-the-first-military-group-to-hide-behind-civilians.cfm>

caused by coalition forces in Afghanistan, which, in turn, served the Taliban's interests.²¹⁰ During the fight against ISIS in Iraq, ISIS members not only used civilians as shields but also mined escape routes, punished those caught trying to flee, shot at fleeing civilians, and burned boats that could be used for escape. (It was also claimed that Iraqi and Kurdish forces fighting ISIS sometimes prevented perceived hostile civilians from fleeing combat zones.)²¹¹

In the case of non-state warring parties, as described above, the harming of civilians by the opponent is perceived as serving the military effort—either because of local consequences (fueling anger among the population that can be used a recruiting tool, reducing political support for the war) or international ones (pressure from public opinion within the opponent's country or globally).²¹² This is the guiding principle of Hamas's defensive strategy, including during the 2023-2025 Israel-Hamas War.

Hamas's Defense Concept in Gaza, 2024: Civilians as Human Shields

War is a competitive and reciprocal activity, and one cannot understand the behavior of one side or analyze the military logic behind it (let alone interpret it legally or morally) without considering the conduct of the opposing side. And yet, such one-sided judgement is characteristic of critics, researchers, UN agencies, and human rights organizations that only barely address Hamas's fighting methods, if they do so at all. This is akin to selectively broadcasting a boxing or wrestling match where one of the competitors has been erased. As Professor Alexander Jakobson once wrote on a similar issue, viewers would see a person who appears to have lost his mind and is wildly waving his fists, without understanding whom he is fighting or what exactly he is trying to confront.²¹³

This is all the more true for urban warfare like the Israel-Hamas war, where interaction between attacker and defender is close and intense. In such a conflict, it is virtually impossible to understand IDF conduct without an in-depth analysis of Hamas's defensive strategy within Gaza's dense urban environment. Yet, the critics we described do not conduct such a thorough analysis and often merely mention Hamas's conduct in an offhand, *pro forma* manner ("Hamas violations do not justify..."). In the rest of this chapter, we will fill in these gaps by addressing the other party to this conflict: Hamas and the other armed groups in Gaza.

A Hamas document captured during Operation Protective Edge (2014) explained that IDF soldiers "must limit their use of weapons and tactics that lead to unnecessary damage and loss of civilian life and property. [Therefore] it is difficult for them to fully exploit their weaponry, especially artillery," and that "the presence of civilians creates many resistance pockets against advancing forces, creating problems such as: firing restrictions [...] control over the population [...] aid and first aid to civilians." Hamas also noted that damage

²¹⁰ ABC News Australia, "US and Afghan troops reportedly kill 22 'human shields' in anti-Taliban operation", 12 February 2017, <https://www.abc.net.au/news/2017-02-13/afghan-joint-operation-deaths/8264290>

²¹¹ Mark Lattimer, Miriam Puttick and, Mays Al-Juboori, *Civilian protection in the battle for Mosul: critical priorities*, London: Minority Rights Group International, 2016, pp. 8-9; BBC Online, "Mosul battle: 'Dozens of civilians killed' fleeing IS-held district", *BBC Online*, June 4, 2017, <https://www.bbc.com/news/world-middle-east-40146724>; Press releases Office of the [UN] High Commissioner for Human Rights, "Mosul: UN receives reports of mass killings of fleeing civilians by ISIL", June 8, 2017, <https://www.ohchr.org/en/press-releases/2017/06/mosul-un-receives-reports-mass-killings-fleeing-civilians-isil?LangID=E&NewsID=21701>; Paul Kamolnick, *The Al-Qaeed Organization and the Islamic State Organization: History, Doctrine, Modus Operandi, and U.S. Policy to Degrade and Defeat Terrorism Conducted in the Name of Sunni Islam*, Carlisle: Strategic Studies Institute and U.S. Army War College Press, 2017, pp. 329-330

²¹² Sulaiman, "Civilians say Taliban use of human shields shows weakness, cruelty", *Salaam Times*, December 12, 2018,

https://afghanistan.asia-news.com/en_GB/articles/cnmi_st/features/2018/12/12/feature-02

²¹³ אלכסנדר יעקובסון, "ההדווה שבהטפת מוסר", *קתרסיס* 9 (אביב 2008), ע"ע 19-20.

to civilian property caused by the attacker benefits the defenders by "increasing hatred toward the attackers" and "boosting support for city defenders".²¹⁴

Based on insights reflected in this and other documents, Hamas has developed, since 2006, a strategy of using Gaza's civilians as human shields.²¹⁵

In Gaza itself, there have been cases where civilians voluntarily served as human shields for military targets and took pride in doing so, believing their presence prevented Israeli attacks. Examples of Hamas calling on civilians not to evacuate combat zones, or attempting to prevent such evacuations, occurred during Operation Pillar of Defense in 2012 and Operation Cast Lead in 2008-2009.²¹⁶ Hamas and other terrorist organizations stated that they "saluted" these actions.²¹⁷ Senior Hamas figure Fathi Hammad said that both children and the elderly in Gaza "excel in the death industry," which they love, "unlike Israelis, who love life," and that they excel as human shields for "the resistance."²¹⁸ Hamas leader Yahya Sinwar explained during the war to his colleagues that civilian casualties are not only "an inevitable sacrifice" but also "will pump blood into the veins of the nation" and strengthen Hamas.²¹⁹ Another senior Hamas figure, Sami Abu Zohri, boasted that it is not a problem if civilians die in the war "because the wombs of our women will produce many more children," a statement that, by belittling the value of Gazan lives, sparked outrage in the Gaza Strip.²²⁰

Let it be noted that the use of human shields is prohibited under international law,²²¹ and various treaties explicitly state that the presence of civilian human shields near military targets does not render the target immune from attacks.²²²

Unlike their practice during the October 7 massacre, Hamas fighters—estimated at 30,000 at that time²²³—generally did not fight in large formations within Gaza. They did reportedly engage in a few company-size

²¹⁴ IDF Online, " Captured Hamas Combat Manual Explains Benefits of Human Shields", 14 August 2014, <https://www.idf.il/en/mini-sites/the-hamas-terrorist-organization/captured-hamas-combat-manual-explains-benefits-of-human-shields ../>

²¹⁵

Andrew Fox and Salo Aizenberg, "Hamas's Human Shield Strategy in Gaza", Center for New Middle East, Henry Jackson Society (April 2025). <https://henryjacksonsociety.org/wp-content/uploads/2025/05/HJS-Hamass-Human-Shield-Strategy-in-Gaza-Report-WEB.pdf>

²¹⁶ מרכז המידע למודיעין וטרור, " שימוש שעושה המאס באוכלוסייה כ"מגן אנושי" ובמתקנים אזרחיים לצרכים צבאיים", 2023, בנובמבר <https://www.terrorism-17.info.org.il/he/%D7%A9%D7%99%D7%9E%D7%95%D7%A9-%D7%A9%D7%A2%D7%95%D7%A9%D7%94-%D7%97%D7%9E%D7%90%D7%A1-%D7%91%D7%90%D7%95%D7%9B%D7%9C%D7%95%D7%A1%D7%99%D7%99%D7%94-%D7%9B%D7%9E%D7%92%D7%9F-%D7%90%D7%A0%D7%95%D7%A9>

;/ אליאור לוי, יואב זיתון *Ynet*, 2024, "צה"ל דרש – אבל המאס מצליח למנוע פיגועי מהשכונות בעזה", 16 ביולי <https://www.ynet.co.il/articles/0,7340,L-4544458,00.html>

²¹⁷ Yousuf Alhelou, "Palestinian mass resistance blocks Israeli air strike", *The Electronic Intifada*, November 20, 2006

²¹⁸ <https://www.memri.org/tv/hamas-mp-fathi-hammad-we-used-women-and-children-human-shields>

²¹⁹ Summer Said and Rory Jones, "Gaza Chief's Brutal Calculation: Civilian Bloodshed Will Help Hamas", *Wall Street Journal*, June 10, 2024, https://www.wsj.com/world/middle-east/gaza-chiefs-brutal-calculation-civilian-bloodshed-will-help-hamas-626720e7?mod=middle-east_news_article_pos3

²²⁰ <https://www.memri.org/tv/sami-abu-zuhri-hamas-gaza-war-babies-women-wombs-martyred-american-campuses>, <https://www.bbc.com/news/articles/cyvmmr154v2o>

²²¹ - ראו <https://ihl-databases.icrc.org/en/customary-ihl/v1/rule97>

²²² <https://ihl-databases.icrc.org/en/ihl-treaties/gciv-1949/article-28>, as well as article 51(7) of the first additional protocol.

²²³ יהושע קליסקי, " 30,000 לוחמים, אלפי רקטות ורופנים מתאבדים: יכולות המאס", *המכון למחקרי ביטחון לאומי*, 2023, בנובמבר https://www.inss.org.il/he/social_media/30000-%D7%9C%D7%95%D7%97%D7%9E%D7%99%D7%9D-%D7%90%D7%9C%D7%A4%D7%99-%D7%A8%D7%A7%D7%98%D7%95%D7%AA-%D7%95%D7%A8%D7%97%D7%A4%D7%A0%D7%99%D7%9D-%D7%9E%D7%AA%D7%90%D7%91%D7%93%D7%99%D7%9D-%D7%99%D7%9B/

attacks at the early stage of the war, and Hamas had a pre-planned conventional defense plan for the urban area; but the tactical superiority of IDF forces soon caused them to abandon any such attempt. Instead, they operated in small, scattered cells or units, sometimes hiding among civilians. They often also fought in civilian clothes, which naturally made it harder to distinguish them from the civilian population.²²⁴ At least at the beginning of the fighting, Hamas instructed civilians not to leave areas for which the IDF issued evacuation warnings.²²⁵ Similar policies were reported during the October 2024 battle in Jabalya. This was a continuation of Hamas's longstanding policy of fighting under civilian cover, a tactic that served the movement well during Operations Protective Edge and Cast Lead.²²⁶

As we demonstrated earlier, the safest way to protect civilian lives in urban combat is to evacuate them from the combat zone. Disastrously, during the Israel-Gaza war, Gaza's population could only evacuate to less dangerous areas within Gaza that Israel unilaterally designated "Humanitarian Zones" or "Safer Zones" (distinct from "Safe Zones," discussed later in this chapter and in Chapter 4). Hamas ensured that even those who obeyed Israeli directives would face risk of harm. They refused to declare even one area in Gaza as an open zone where its fighters would not operate. They deliberately used the humanitarian zone to hide senior figures like Muhammad Deif²²⁷ and as a launching site for rockets toward Israeli cities. However, the proportion of casualties in the Humanitarian Zone was negligible in comparison to casualties in those areas from which civilians did not evacuate (see Chapter 4 for details).

It is not Hamas alone who is responsible for denying the possibility of evacuation. Due to Egypt's closure of the southern border, residents could not entirely escape the combat zones. The cynical decision to close the borders, and the Arab and international refusal to provide refuge to Palestinians, were endorsed by the UN High Commissioner for Refugees and other actors.²²⁸ This decision, as well as the initial refusal to supply aid to the Israeli-designated humanitarian zone within Gaza, were **among the reasons why civilian casualties in Gaza were much higher than in southern Lebanon, despite the similarities in tactics used by both Hamas and Hezbollah against Israel. Unlike Palestinians in Gaza, Shiite civilians in southern Lebanon could leave the combat zone and reach safer areas.**²²⁹

Naturally, there can be no equivalent IDF strategy that relies on putting Israeli civilians in the line of fire in order to impose constraints on Hamas operations. The reason is that while Hamas aims to kill Israeli civilians—men, women, and children—as an explicit and integral part of its war objectives, a goal that was exhaustively demonstrated in commands distributed to fighters on October 7 and in the movement's captured documents,²³⁰ IDF doctrine sees the army as a barrier between the enemy and civilians, not the opposite—

²²⁴ חלק גדול מהפרטים הם מסרטונים שהופצו ברשתות חברתיות. שתי דוגמאות המציגות את השימוש בבגדים אזרחיים והירי רב-
 ו-<https://www.youtube.com/watch?v=bxVjOZ1M21M> מבתיים אפשר למצוא ב:
<https://www.youtube.com/watch?v=7IkIDmONY8k>

²²⁵ ממר", " ארגוני הטרור חמאס והג'יהאד האסלאמי לתושבי עזה: אל תתפנו מאזורים שיוקפו מהאוויר", 10 באוקטובר 2023,
<https://www.memri.org.il/cgi-webaxy/item?5920>

²²⁶ , 11 Ynet יואב זיתון, " פשיטה בתנאים חדשים: עזה הפכה לזירה משנית, הפעולה בג'באליה עלולה להימשך חודשים",
 2024,
<https://www.ynet.co.il/news/article/sk00dabhjl>

²²⁷ <https://www.jpost.com/breaking-news/article-810137>

²²⁸ <https://www.trtworld.com/middle-east/palestinians-should-not-flee-to-egypt-un-refugees-chief-17007681>,

²²⁹ <https://www.barrons.com/news/lebanon-says-death-toll-tops-2-600-since-israel-intensified-strikes-c0e643f5> , <https://breakingdefense.com/2024/06/in-south-lebanon-empty-villages-ruined-crops-and-fears-of-what-comes-next/>

²³⁰ [https://www.terrorism-info.org.il/he/%D7%A9%D7%97%D7%95%D7%9E%D7%A8%D7%99-%D7%A9%D7%9C%D7%9C-%D7%A9%D7%A0%D7%AA%D7%A4%D7%A1%D7%95-%D7%A2%D7%95%D7%9C%D7%94-%D7%9B%D7%99-%D7%97%D7%9E%D7%90%D7%A1-%D7%AA%D7%9B%D7%A0%D7%A0%D7%94-%D7%9E%D7%A8,/
<https://www.kan.org.il/content/kan-news/defense/566768/>](https://www.terrorism-info.org.il/he/%D7%A9%D7%97%D7%95%D7%9E%D7%A8%D7%99-%D7%A9%D7%9C%D7%9C-%D7%A9%D7%A0%D7%AA%D7%A4%D7%A1%D7%95-%D7%A2%D7%95%D7%9C%D7%94-%D7%9B%D7%99-%D7%97%D7%9E%D7%90%D7%A1-%D7%AA%D7%9B%D7%A0%D7%A0%D7%94-%D7%9E%D7%A8,/)

a doctrine that contributed to the sharp sense of military failure following the October 7 massacre.²³¹ **In any case, it is impossible to understand the extensive harm to Gaza's civilians during the war without recognizing Hamas's deliberate strategy to use civilians as human shields and its refusal to designate any part of the Gaza Strip as a safe zone from which its fighters would be excluded.**

Hamas dependence on human shields is supplemented by unprecedented subterranean activity. Long before October 7, 2023, Hamas constructed a vast tunnel network to overcome Israel's edge in intelligence, surveillance, target acquisition and reconnaissance. Prior to the war, this network was known by Israel to include dozens of kilometers of tunnels.²³² By early 2024, it was estimated that this tunnel system totaled over 500 km with about 5,700 shafts.²³³ This is probably greater than any other single military tunnel system in history (for comparison, the Viet Cong's tunnel system in the Cu Chi tunnels in Vietnam was estimated at about 250 km), although the total extent of North Korea's tunnels may be larger.²³⁴ It should be noted that new tunnels were still being exposed a year and a half into the fighting.²³⁵ They were built beneath Gaza's urban areas, with many entrances hidden inside civilian buildings, some booby-trapped with explosives.²³⁶ A famous example is the entrance to the tunnel where six Israeli hostages were murdered, which was camouflaged inside a children's room with pictures of Snow White and Mickey Mouse on the walls.²³⁷

The sole purpose of these tunnels was to serve as combat infrastructure. In an October 2023 interview, Hamas leader Mousa Abu Marzouk stated that the tunnels were meant to protect Hamas fighters from airstrikes and that "we fight from within the tunnels." Regarding civilians, he claimed that responsibility for their protection lay with the UN and the occupying force (i.e., Israel).²³⁸ The tunnels were designed to enable Hamas forces to remain safely beneath the built-up area, and damaging the tunnels often destroyed the buildings above them.

Additionally, Hamas was concealing weapons in civilian homes well before the current war. In one case, in 2021, a building in Beit Hanoun collapsed and surrounding buildings were damaged in a large explosion believed to have been caused by a malfunction in explosives stored in a tunnel;²³⁹ reports indicated that 36 people were injured. Hamas used hospitals, schools, clinics, mosques, UNRWA facilities, and other civilian structures to hide weapons, command centers, tunnel entrances, and fighters, and often placed rocket launchers near such buildings²⁴⁰ (see

²³¹ <https://13tv.co.il/item/news/politics/security/idf-904482077/>, <https://www.israeldefense.co.il/node/64496>

²³² Netanel Flamer, "Offsetting the offset: Israel's strategy vis-à-vis Hamas

during the 2021 Gaza War", *Israel Affairs* 28(3), 2022, p. 375. <https://tunnels.honestreporting.com/>

²³³ Adam Goldman, Ronen Bergman, Patrick Kingsley and Gal Koplewitz, "Israel Unearths More of a Subterranean Fortress Under Gaza", *New York Times*, January 16, 2024, <https://www.nytimes.com/2024/01/16/us/politics/israel-gaza-tunnels.html>

²³⁴ Tom Mangold and John Penycate, *The Tunnels of Cu Chi: A Harrowing Account of America's Tunnel Rats in the Underground Battlefields of Vietnam*, New York: Ballantine Books, 2005 (1986), p. 211; Tom Bowman, "As North Korea Tensions Rise, U.S. Army Trains Soldiers To Fight In Tunnels", *NPR*, January 9, 2018

²³⁵ משה שטיינמן, "שנה בתוך עזה - ופירי מנהרות חדשים עדיין מתגלים: יום לחימה נוסף ברצועה", כאן 11, 10 באוקטובר 2024, <https://www.kan.org.il/content/kan-news/newstv/p-591147/811253/>

²³⁶ ר' למשל יואב זייתון, "מזרנים מאחורי סורגי ברזל: סיור במנהרה בחאן יונס שבה נכלאו חטופים - ותיעוד השמדתה", *Ynet*, 21 בינואר 2024, <https://www.ynet.co.il/news/article/sjnwfhfyt>

²³⁷ 4 בספטמבר יואב זייתון, "בחדר ילדים, עם ציורי שלגייה ומיקי מאוס: תיעוד מפיר המנהרה שבה נרצחו 6 החטופים", *Ynet*, 2024, <https://www.ynet.co.il/news/article/b1d8nfu2c>

²³⁸ MEMRI TV, "Hamas Official Mousa Abu Marzouk: The Tunnels In Gaza Were Built To Protect Hamas Fighters, Not Civilians; Protecting Gaza Civilians Is The Responsibility Of The U.N. And Israel", October 27, 2023, <https://www.memri.org/tv/hamas-official-mousa-abu-marzouk-tunnels-gaza-protect-fighters-%20not-civilians>

²³⁹ 21 במרץ יואב זייתון, "36 פצועים בפיצוץ ברצועה; צה"ל: "מאחסנים אמצעי לחימה בבתי אזרחים""", *Ynet*, 2021, <https://www.ynet.co.il/news/article/SkWuZIK1u>

²⁴⁰ מרכז המידע למודיעין וטרור על שם האלוף מאיר עמית, "עדויות לשימוש שעושים ארגוני הטרור ברצועה בתשתיות"; https://www.terrorism-info.org.il/app/uploads/2024/01/H_287_23.pdf ----, 3 בינואר 2024, "השימוש שהמאס עושה בבתי חולים לצרכים צבאיים - אלשפאא' מקרה מבחן", 11 בדצמבר 2023, https://www.terrorism-info.org.il/app/uploads/2023/12/H_260_23.pdf ----; "ארגוני הטרור ברצועת עזה

Figure 13). In May 2025, IDF soldiers documented a tunnel where Hamas leader Muhammad Deif hid that ran beneath the emergency room of the European Hospital in Khan Younis. ²⁴¹

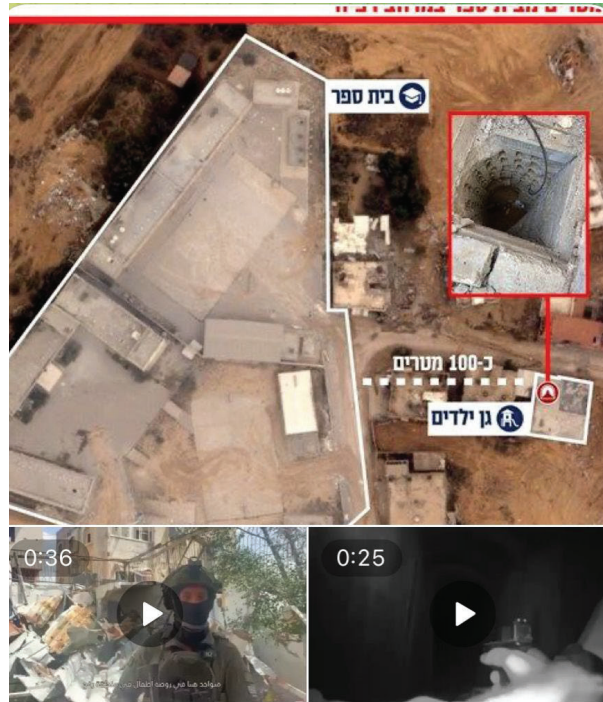


Figure 13: Location of a tunnel entrance in a kindergarten²⁴²

From: *In the Yard of a Kindergarten and Near a School: Hamas Terror Tunnel Route Discovered and Dismantled in the Rafah Area*", by the Israel Defense Forces (IDF). © Israel Defense Forces 2024. Licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. <https://www.idf.il/en/mini-sites/idf-press-releases-israel-at-war/april-25-pr/in-the-yard-of-a-kindergarten-and-near-a-school/#:~:text=During%20the%20operation%2C%20IDF%20troops,school%20in%20the%20Rafah%20area.>

In another famous incident—the second raid on Shifa Hospital ("Operation Local Surgery")—a Palestinian eyewitness testified that before the operation, hundreds of Hamas members, some armed, were inside the hospital, and that during the operation, several mid-level and senior Hamas commanders and members of Islamic Jihad were also detained inside the hospital walls. News services censored this information, probably to protect their crews from Hamas retaliation. The IDF displayed many weapons seized from the hospital. A previous raid had also uncovered a tunnel route leading from the hospital to Hamas command centers. ²⁴³ In

²⁴¹ https://www.terrorism-info.org.il/app/uploads/2024/08/H_174_24.pdf ; <http://tunnels.honestreporting.com>

See also:

Fox and Aizenberg, "Hamas's Human Shield Strategy", pp.36-50. <https://henryjacksonsociety.org/wp-content/uploads/2025/05/HJS-Hamass-Human-Shield-Strategy-in-Gaza-Report-WEB.pdf>

²⁴² <https://www.instagram.com/reel/DKmlj0stG6K/>, <https://www.mako.co.il/pzm-soldiers/Article-797e8e9388f4791027.htm>

²⁴³ <https://www.idf.il/en/mini-sites/idf-press-releases-israel-at-war/april-25-pr/in-the-yard-of-a-kindergarten-and-near-a-school/#:~:text=During%20the%20operation%2C%20IDF%20troops,school%20in%20the%20Rafah%20area.>

²⁴³ Nadeen Ebrahim, Sana Noor Haq, Khader Al Za'anoun and Abeer Salman, " Why Israeli forces are raiding Gaza's Al-Shifa hospital – again", *CNN*, March 28, 2024, <https://edition.cnn.com/2024/03/28/middleeast/gaza-shifa-hospital-raid-israel-war-explainer->

April 2025, Elior Levy, head of the Palestinian Desk at Channel Kan 11, displayed an interrogation summons by Hamas authorities to a room at Nasser Hospital in Khan Younis—another indication that they use medical facilities as command posts and interrogation sites (see Figure 14).

وزارة الداخلية والأمن الوطني
ال مديرية العامة للشرطة
إدارة محافظة خان يونس

التاريخ: 20/4/2024
المرفقات:

محافظة: خان يونس
مركز شرطة: خان يونس

تبلغ بالحضور

الأخت: [Redacted]
العنوان: [Redacted]

الحضور طرفنا الساعة، 20:00 من يوم [Redacted] الموافق 20/4/2024
وذلك بشأن: [Redacted]

وأن تتوجه/ي إلى: [Redacted]

مصطحبا/ة بهذا الكتاب، بطاقة الهوية + صورة عن بطاقة الهوية

تاريخ استلام التبليغ، /- /- 20 الساعة، [Redacted]

وتقبلوا فائق الإحترام والتقدير...

اسم وتوقيع مستلم البلاغ: [Redacted]

اسم وتوقيع الضابط المحقق: [Redacted]

تلجرام أحرار غزة

Figure 14: Summons of a Gazan for interrogation by Hamas security services. Location: a room in Nasser Hospital in Khan Younis. Source: Twitter of Elior Levi ²⁴⁴

X Post by *Elior Levi*, courtesy of *Elior Levi*. © *Elior Levi* 2024. Reprinted with permission.

Moreover, Hamas frequently launched rockets from within built-up areas, as the movement has done for years. ²⁴⁵ The total number of rockets fired from Gaza from October 7th, 2023 until April 2024 was about

²⁴⁴ " כיתור מלא בתוך 15 דקות: מעל 140 מחבלים חוסלו, 650 נעצרו - המבצע בשיפא נמשך" N12 חדשות ; https://www.mako.co.il/news-military/2024_q1/Article-532a99713516e81027.htm, 21 בינואר 2024, N12 . יואב זיתון, " לאורך כ-250 מטרים: כך נראתה השמדת המנהרות מתחת לביה"ח שיפא | <https://www.ynet.co.il/news/article/bj8yvzmd6>; Julian E. Barnes, " Hamas Used Gaza Hospital as a Command Center, U.S. Intelligence Says", *New York Times* January 2, 2024, updated April 1, 2024, <https://www.nytimes.com/2024/01/02/us/politics/gaza-hospital-hamas.html> ; <https://x.com/HonestReporting/status/1943027609320730889>

²⁴⁵ <https://x.com/eliorlevy/status/1916879574593372377>

<https://www.youtube.com/watch?v=IUrDAEgisXM>
https://www.youtube.com/watch?v=cbtI_F9AaN8&t=5s

9,100, though it is difficult to determine how many came from built-up areas versus the outskirts of settlements or dug-in launch sites in open terrain.²⁴⁶ The most infamous of these rockets was, of course, the one that hit near Al-Ahli Al-Mamdani Hospital. Hamas sought to utilize the resultant mayhem to pin a false charge of mass slaughter on Israel (see Chapters 4 and 5), but there is extensive documentation of such launches throughout the war. According to IDF estimates, about 11% of Hamas launches fell within the Gaza Strip.²⁴⁷

A Hamas member interviewed by *The New York Times* explained that Hamas's fighting strategy relied on drawing IDF forces deep into Gaza and then ambushing them.²⁴⁸ Hamas fighters used tunnels, sometimes from civilian homes, as launch points for attacks and safe havens. Some emerged from tunnels unarmed and disguised as civilians, picked up weapons from civilian weapon caches, and launched attacks.²⁴⁹ At least once, fighters emerged from a tunnel within an IDF bastion, but the attack failed.²⁵⁰ In some cases, fighters emerged from civilian homes and attached magnetic devices to Israeli tanks, a method apparently abandoned after IDF soldiers began installing 360-degree perimeter cameras on armored vehicles.²⁵¹ In any case, as expected, fighting took place from within homes and inside civilian buildings.

Hamas fighters also fought from open spaces. In one such case, 21 Israeli soldiers preparing houses for demolition were killed when Hamas fired RPG rockets from nearby orchards.²⁵² Sometimes Hamas itself blew up houses over tunnel entrances when IDF forces arrived to prevent the troops' entry.²⁵³ At other times, tunnels were found inside booby-trapped homes, though it is unclear whether the booby-traps were intended to block access to the tunnels or were standard traps laid for IDF soldiers entering these homes.²⁵⁴

Hamas's fighting methods meant that Israel had to seize built-up areas and physically clear buildings or destroy them entirely to prevent Hamas from controlling the area. The enemy's threat was three-dimensional—underground, at high elevations, and at ground level—and the number of tunnels and shafts meant that even if Israeli forces were present in a specific area, they had to assume the enemy could appear at any moment from any surrounding building not yet mapped for tunnels. Even if they scanned a building, they had to ensure the enemy had not infiltrated it again, as is customary in urban combat. An example was when IDF forces unexpectedly encountered Hamas leader Yahya Sinwar in an area where IDF troops had previously operated. A photo later showed Sinwar leaning over a map with Hebrew markings on the wall behind him—evidence that IDF soldiers had previously been in the building.

²⁴⁶ גד ליאור, עינב חלבי, תמר טרבלסי, רועי רובינשטיין, אדיר ינקו, הדר גיל-עד, אלישע בן קימון, מאיר תורג'מן, " כמה , 7 באפריל Ynet רקטות שוגרו, כמה עלה יום מלחמה, מה קרה לנתב"ג וכמה מנות דם נתרמו | 6 חודשי מלחמה – הנתונים", <https://www.ynet.co.il/news/article/ry4zdm6j0>, 2024

²⁴⁷ <https://www.maariv.co.il/news/military/Article-1087912>

²⁴⁸ Patrick Kingsley, Natan Odenheimer, Aaron Boxerman, Adam Sella and Iyad Abuheweila, " How Hamas Is Fighting in Gaza: Tunnels, Traps and Ambushes", *New York Times*, July 13, 2024, <https://www.nytimes.com/2024/07/13/world/middleeast/hamas-gaza-israel-fighting.html>

²⁴⁹ עוזי ברוך, "שב"כ חושף את הסיפור המלא שמאחורי הסרטון של המאס בתוך מגנן של חיילים ברצועה", ערוץ 7, 13 במרץ 2024, <https://www.inn.co.il/news/631880>

²⁵⁰ עוזי ברוך, "שב"כ חושף את הסיפור המלא שמאחורי הסרטון של המאס בתוך מגנן של חיילים ברצועה", ערוץ 7, 13 במרץ 2024, <https://www.inn.co.il/news/631880>

²⁵¹ עידן ארץ, "היום שצייד אלף טנקים במצלמות חכמות: מנענו מוות של לא מעט חיילים", גלובס, 20 בדצמבר 2023, <https://www.globes.co.il/news/article.aspx?did=1001465635>

²⁵² 23 בינואר 2024, N12, המבנים קרסו ברגע: תחקיר האסון, RPG ניר דבורי, " המחבלים הגיחו וירו", https://www.mako.co.il/news-military/2024_q1/Article-eb6804674463d81026.htm

²⁵³ Adam Goldman, Ronen Bergman and Natan Odenheimer, "'Moving in the Dark': Hamas Documents Show Tunnel Battle Strategy", *New York Times*, September 2, 2024, <https://www.nytimes.com/2024/09/02/world/europe/hamas-tunnels-war-documents.htm>

²⁵⁴ Emanuel Fabian, "Four troops killed in booby-trapped building as fighting rages in Rafah, central Gaza", *The Times of Israel*, June 11, 2024, <https://www.timesofisrael.com/four-troops-killed-in-booby-trapped-building-as-fighting-rages-in-rafah-central-gaza/>

Many other encounters occurred in areas that had already been occupied by IDF forces and supposedly cleared. Every building standing could have been a trap, and many indeed were used as just that. It is impossible to know how many buildings were booby-trapped, but it is clear that in every part of Gaza where the IDF operated, forces encountered numerous booby-trapped items—including, according to the IDF,²⁵⁵ children's school bags and dolls. Even if we doubt these claims²⁵⁶—and some reports of "cries in Hebrew" may be exaggerated—the overall picture is clear: maneuvering forces encountered booby-trapped buildings at every turn.

Such buildings constitute legitimate military targets under international law (see Article 52 of Additional Protocol I to the Geneva Conventions) and accepted combat doctrine. An estimate by Brigade 162 suggests that its soldiers destroyed at least 96,000 booby-trapped locations across Gaza, though this estimate may include structures merely suspected of being booby-trapped. In Rafah alone, the IDF destroyed about 14,000 such buildings²⁵⁷ and in Jabalya over 600, all in the latter months of 2024.²⁵⁸ An independent investigation by *The New York Times* confirmed the widespread presence of booby-trapped buildings,²⁵⁹ which resulted in numerous casualties among IDF soldiers.²⁶⁰ This operational reality necessitated extensive destruction of civilian structures. Indeed, analysis of satellite images from February 2025 showed that about 65% of Gaza's buildings had been destroyed.²⁶¹

To emphasize: the proliferation of tunnels and booby-traps in Gaza means there are many "militarily use-identified" sites that appear on the surface to be civilian installations. As noted, Hamas used hospitals, schools, universities, mosques, UNRWA facilities, and other civilian infrastructure for combat purposes, as command centers or to hide tunnel entrances²⁶²—even when civilians were nearby. This compelled the IDF to choose between attacking a military target at the risk of incidental civilian harm and property destruction, or failing the military objective while enabling Hamas and other groups (such as Palestinian Islamic Jihad) to continue their activities against Israeli soldiers and civilians. With that said, there have been cases of unjustified destruction or damage that may have been justified but that was carried out without proper approval, such as the destruction of Al-Israa University in Gaza City.²⁶³

²⁵⁵ <https://www.snopes.com/news/2024/04/30/idf-sniper-drones-crying/> (William Booth, Itay Stern and Hazem Balousha, "Ambushes and booby traps: Hamas tactics stir confusion, fear, danger". *Washington Post*, December 22, 2023, <https://www.washingtonpost.com/world/2023/12/22/hamas-booby-traps-gaza/>)

²⁵⁶ <https://www.snopes.com/news/2024/04/30/idf-sniper-drones-crying/> (William Booth, Itay Stern and Hazem Balousha, "Ambushes and booby traps: Hamas tactics stir confusion, fear, danger". *Washington Post*, December 22, 2023, <https://www.washingtonpost.com/world/2023/12/22/hamas-booby-traps-gaza/>)

²⁵⁷ https://x.com/Doron_Kadosh/status/1836314244049977773.

²⁵⁸ <https://www.jewishpress.com/special-features/israel-at-war-iron-swords/162nd-armored-division-killed-196-terrorists-detained-250-in-less-than-2-hours/2024/12/31/>

²⁵⁹ <https://www.nytimes.com/2024/10/22/world/middleeast/hamas-israel-gaza-guerrilla.html>

²⁶⁰ ראה לדוגמה אצל: Fox and Aizenberg, "Hamas's Human Shield Strategy", p.33. <https://henryjacksonsociety.org/wp-content/uploads/2025/05/HJS-Hamass-Human-Shield-Strategy-in-Gaza-Report-WEB.pdf>

²⁶¹ 11 בפברואר 2025, N12 תומר אלמגור, "הריבירה של המזרח התיכון?": נתוני ההרס של רצועת עזה נחשפים", https://www.mako.co.il/news-specials/data_n12/Article-5a5074bcc3ce491027.htm

²⁶² מרכז המידע למודיעין וטרור, " ארגוני הטרור ברצועת עזה ממשיכים לעשות שימוש בתשתיות אזרחיות לפעילות טרור", 11 באוגוסט 2024, https://www.terrorism-info.org.il/app/uploads/2024/08/H_174_24.pdf

And see also: Fox and Aizenberg, "Hamas's Human Shield Strategy", pp.36-50. <https://henryjacksonsociety.org/wp-content/uploads/2025/05/HJS-Hamass-Human-Shield-Strategy-in-Gaza-Report-WEB.pdf>

²⁶³ <https://www.ynet.co.il/news/article/bkha00fhpp>

It should be added that whenever circumstances permit, the IDF usually issues warnings before strikes.²⁶⁴ This is despite the challenges doing so poses for soldiers by allowing the enemy time to prepare, escape or fight, as well as giving advance warning on the movements of Israeli military forces and letting the enemy know where the attack is *not* expected. This can allow the enemy either to move his fighters out of the fighting area or prepare ambushes in the vicinity, as it knows it does not have to expect an attack elsewhere.

The IDF's warning method, which involved dividing Gaza into multiple small polygons—smaller in built-up areas and larger in open terrain—and warning residents before attacking a polygon²⁶⁵, often meant sacrificing the element of surprise. The IDF not only issued general warnings for residents to evacuate but also announced in advance what their targets would be within this limited area. This approach contrasts with typical urban warfare, where minimizing civilian harm usually does not justify the loss of surprise.²⁶⁶ **Despite criticism regarding the accuracy and efficiency of this method²⁶⁷, to the best of our knowledge, no other military in the world employs such a specific and targeted warning system, although general warnings (as in Fallujah) are occasionally used.** Indeed, members of an independent review committee of senior US military officials and leading experts in urban warfare expressed concern that the precedent posed by the IDF's early warning system could undermine the military effectiveness of other armies.²⁶⁸

Evidence of the difficulty posed to the IDF by urban combat is reflected in the number of casualties from crossfire: 31 out of 445 combat fatalities throughout the Gaza Strip as of July 10, 2025. In addition, six soldiers were killed by "firing deviations", cases in which Israeli artillery missed its target and hit Israeli soldiers instead. This contrasts with the rarity of cases of fratricide on the front line in southern Lebanon²⁶⁹, in rugged terrain that was built-up and populated before the war but less dense than Gaza and with fewer enemy fighters.²⁷⁰

²⁶⁴ <https://ihl-databases.icrc.org/en/customary-ihl/v1/rule20>

²⁶⁵ <https://www.idf.il/ar/%d8%ac%d9%8a%d8%b4-%d8%a7%d9%84%d8%af%d9%81%d8%a7%d8%b9-%d8%a7%d9%84%d8%a5%d8%b3%d8%b1%d8%a7%d8%a6%d9%8a%d9%84%d9%8a/%d8%ac%d9%8a%d8%b4-%d8%a7%d9%84%d8%af%d9%81%d8%a7%d8%b9-%d8%a7%d9%84%d8%a5%d8%b3%d8%b1%d8%a7%d8%a6%d9%8a%d9%84%d9%8a/swordsofiron-011223-150> .

²⁶⁶ John Spencer, "Israel Has Created a New Standard for Urban Warfare. Why Will No One Admit It", *Newsweek*, March 25, 2024, <https://www.newsweek.com/israel-has-created-new-standard-urban-warfare-why-will-no-one-admit-it-opinion-1883286>; ?

²⁶⁷ <https://www.bbc.com/news/world-middle-east-68687749> , <https://www.justsecurity.org/93105/israeli-civilian-harm-mitigation-in-gaza-gold-standard-or-fools-gold/>

²⁶⁸ Gen. David Rodriguez et al. (Gaza Assessment Task Force), "The October 7 War: Observations, October 2023 – May 2024", JINSA (May 2024), pp.39-43. As well as: <https://jinsa.org/correcting-the-record-on-the-idf-and-lethal-targeting/>,

<https://www.newsweek.com/israel-has-created-new-standard-urban-warfare-why-will-no-one-admit-it-opinion-1883286#:~:text=That%20would%20mean%20some%2018%2C000,low%20for%20modern%20urban%20warfare> ,

²⁶⁹ IDF Online, "IDF soldiers killed and wounded during the war", updated July10, 2025, <https://www.idf.il/%D7%90%D7%AA%D7%A8%D7%99-%D7%99%D7%97%D7%99%D7%93%D7%95%D7%AA/%D7%99%D7%95%D7%9E%D7%9F-%D7%94%D7%9E%D7%9C%D7%97%D7%9E%D7%94/%D7%97%D7%9C%D7%9C%D7%99-%D7%95%D7%A4%D7%A6%D7%95%D7%A2%D7%99-%D7%A6%D7%94-%D7%9C-%D7%91%D7%9E%D7%9C%D7%97%D7%9E%D7%94/>

²⁷⁰ Additionally, 23 Israeli soldiers in or around the Gaza Strip died in accidents. Naturally, there's no available data on Palestinian militants' accidents or fratricide.

In summary, this chapter shows that fighting in Gaza occurred under especially complex operational conditions: densely populated urban surroundings, filled with tunnels and booby-traps, with Hamas fighters systematically hiding within the civilian population and humanitarian facilities. This operational reality created by Hamas and other armed Palestinian groups **blurred the distinction between combatants and civilians and between military infrastructure and civilian property**. Consequently, much of the destruction inflicted on Gaza resulted from genuine military constraints rather than malicious intent or disproportionate measures.

This chapter does not aim to justify any action taken by IDF forces or deny that fighting in Gaza produced and still produces heartbreaking tragedies—such as the death of entire families in collapsed buildings—whether because those buildings contained legitimate military targets, or because of negligence or faulty intelligence. Regardless of questions of justification or righteousness, this chapter describes the factual situation regarding the fighting in Gaza. Moral or legal judgments can be made based on these facts, but we emphasize that **any legal or moral assessment of the campaign must be based on actual operational realities**. This requires the analyst to understand these factors and take them into account in order to draw balanced and fair conclusions.

In subsequent chapters, we will examine how false or incomplete data—from both Gazan sources and international organizations—ignored this context. As we will show, an international narrative was formed, one biased toward describing a "genocide", that was based on quantitative information collection dynamics that favor circular, "stale" data over primary research. These data were reinforced by unreliable qualitative testimonies subject to distortion and manipulation.

Chapter Three: The Question of Massacre and Deliberate Killing

Summary

The claim that Israel's wartime objective in the 2023-2025 Gaza War is to destroy the Palestinian population of Gaza, in whole or in part, rests in part on allegations that certain IDF operations not only inflicted widespread death and suffering on Palestinian civilians, but were conducted deliberately and without valid military justification. Many critics argue that the multitude of testimonies constitutes, in and of itself, evidence that these are not isolated cases but systematic and even genocidal practices—namely, massacres. In this chapter, we seek to examine this claim in detail.

First, we state that our research approach is that individual war crimes are inseparable from war. The role of a functioning military and judicial system is to locate and punish as many perpetrators as possible. Furthermore, we assume that most war crimes are committed without forensic documentation or evidence. Therefore, cases supported by forensic evidence should be viewed as the tip of an iceberg, indicating a much larger volume of war crimes of varying severity, as well as failures of discipline and professionalism that do not reach the threshold of war crimes. Such cases should serve as a warning to the military system—not only because of the documented crimes but also because such crimes may be indicative of wider negligence, lack of professionalism, and even criminal tendencies throughout the ranks.

For our analysis, we use the vast database of testimonies compiled by historian Lee Mordechai (March 2025 version) on Israeli war crimes allegedly perpetrated during the Israel-Hamas War. Mordechai has collected an enormous array of accounts from numerous sources—Palestinian witnesses, UN agencies, human rights organizations, academic researchers, media outlets, and international critics of Israel—to substantiate his claim that the IDF is responsible for serious and intentional war crimes. However, a detailed review of this extensive collection shows only a very small number of killings of civilians, let alone short-range frontal killings, supported by forensic evidence, relative to the length and intensity of the conflict. In those incidents that were forensically supported, a total of 12 Palestinians and seven foreign civilians were killed under circumstances that could strongly suggest war crimes by Israeli soldiers—or, at least, criminal negligence and lack of military discipline. An additional 15 Palestinian civilians were killed in the Rafah ambulance shootings, which were not covered by Mordechai in his March 2025 edition.

Mordechai supplements this limited set of credible and verified reports with numerous additional accounts that are either unverified or of questionable reliability—relying solely on Palestinian testimonies or ambiguous video clips—to claim that 40 more Palestinians, along with one foreign UN worker, were killed. In most of these cases, the victims are not identified by name, and the circumstances surrounding their deaths leave open the possibility that the use of lethal force may have had military justification. It goes without saying that none of these cases meet the accepted definition of a “massacre.” Mordechai further seeks to amplify these claims by citing even less credible accounts of mass killings from Hamas-affiliated sources—claims that lack sufficient forensic evidence to support them.

Finally, to bolster the thesis of systematic extermination by IDF soldiers, many critics cite testimonies from doctors affiliated with the PAMA (Palestinian American Medical Association) who claim that Israeli snipers (and “sniper drones”) carried out widespread killings of Palestinian children. However, this claim directly contradicts independent medical findings documenting the distribution of injuries in Gaza. These findings indicate that gunshot wounds—particularly to the head—are extremely rare among Gazan women and children. Moreover, PAMA-associated doctors allege that the IDF operationally employs sniper drones, a claim that is inconsistent with current realities.

Furthermore, these doctors state that they did not encounter armed Hamas presence in Gaza hospitals—an account completely contradicted by other testimonies, including a Yazidi woman raped and forced to work in Gazan hospitals, other international volunteers, several Palestinian witnesses, and released Israeli hostages, as well as forensic evidence produced by the IDF.

To clarify: we do not claim that the cases we analyzed from Mordechai's database represent the full extent of suspected war crimes committed by Israeli forces in Gaza. On the contrary—these cases, as is often the case in conflict zones, likely constitute only the tip of the iceberg, with many incidents remaining unreported. However, based on this visible portion, we infer that the overall "iceberg" of criminality in this conflict appears to be smaller than in other comparable wars. In addition, the cases we examined are valuable in identifying recurring patterns among these suspected violations.

Based on our analysis, most violations appear to have occurred in one of three contexts: during house clearances; in ambushes where troops believed they were engaging Hamas fighters (even if that belief was mistaken); and most frequently, against people who entered areas designated by the IDF as prohibited zones or got too close to military positions. These killings may have been carried out either with or without proper military justification. In Gaza, Hamas operatives are often indistinguishable from civilians except in the moments immediately preceding an attack. Moreover, the widespread use by Hamas of easily concealable IEDs or light arms as a central tactic of warfare contributes significantly to the sense of threat perceived by troops on the ground when approached by enemy civilians.

It is equally important to note the patterns that do *not* appear in the evidence we examined. Crucially, as of June 1 2025, there is no forensic evidence of large-scale close-range massacres or systematic executions of restrained prisoners. This contrasts with abundant evidence in other conflicts—such as the confrontation between the Jolani regime in Syria and the Alawis in Latakia Province in early 2025, the Second Iraq War, the campaign against ISIS in Mosul, and, of course, the October 7 massacre of Israeli civilians by Hamas that started the war.

In conclusion, our research indicates a deep problem in relying on unverified witness testimonies in urban warfare such as the current Israel-Hamas War. The problem is even more acute when it involves a mobilized society, let alone self-selected activist groups—as shown in the case of the PAMA-associated doctors—or a population living under a regime that suppresses any information that contradicts its official narrative. However, this does not mean that testimonies of Palestinian victims regarding war crimes should be ignored, or that IDF claims should be accepted uncritically.

A. Introduction

In this chapter, we chose to focus on the numerous Palestinian, humanitarian, and media sources that Lee Mordechai presents as testifying to the deliberate killing of Gazan civilians by the IDF, supposedly with no military justification or alternative interpretation that could explain the killings. Contrary to the title he selected ("Massacres"), Mordechai does not in fact describe acts of mass slaughter that meet the common definition of a massacre except for one incident ("The Flour Massacre"), which we already discussed in Chapter 1, and unverified claims raised by EuroMed Monitor, a Hamas-affiliated organization, about which we elaborate below and in Chapter 8.

Mordechai describes a score of incidents that are shocking and difficult to read—even more so to watch—in which a total of 61 people, civilians or supposed civilians, were killed. We examine these incidents in the sections below in order to identify patterns of civilian deaths in Gaza, knowing full well that there may be other such incidents.

B. Incidents Confirmed by Forensic Evidence

Some of the incidents in Lee Mordechai's database are indeed verified by credible forensic evidence. Regarding these incidents, we believe that publicly available sources are sufficient to raise suspicions of behavior that contradicts military commands, or, if those suspicions are confirmed, war crimes, requiring thorough investigation by the competent authorities and criminal charges if necessary.

Such is the case of the family of Hind Rajab, who evacuated in January 2024 from the Tel al-Hawa neighborhood in accordance with IDF instructions. Their vehicle advanced less than a kilometer when it encountered IDF forces and stopped. Five family members were immediately shot and killed, apparently from an armored IDF vehicle, while Hind's sister managed to call for help via the Red Crescent. The rescue team, which coordinated with the IDF, reported that were marked with laser sights. Two weeks later, their bodies were found alongside those of Hind and her family. Satellite images showed Israeli tanks in the area, though not exactly at the time of the shootings on the family vehicle and ambulance, as satellite images are only updated periodically.²⁷¹ We note that doubts have been raised concerning the associated forensic evidence, but in our opinion, such doubts are outweighed by other evidence indicating IDF culpability.²⁷²

In our opinion, the established facts are serious enough to raise questions regarding the conduct of the forces and the IDF's coordination capabilities with civilian actors at that stage of the war. The fact that an evacuating family and a rescue team were killed raises questions about identification procedures, fire control, and measures taken to prevent accidental civilian casualties. It is necessary to investigate this incident and pursue criminal charges, if warranted by the available evidence.

The same applies to the killing of seven employees of the World Central Kitchen. This incident has already led to the dismissal of the officer who authorized the attack, even though some passengers on the attacked vehicles were armed at least part of the time, which may have been the source of the error that cascaded into the tragic incident.²⁷³

In another incident, footage was leaked from a body camera documenting IDF soldiers during building clearance in the Al-Shati refugee camp. At his debriefing by the unit commander, one soldier describes shooting at an unarmed person, though it is unclear whether the soldier was aware of this at the time. The soldier describes storming the room and shooting the man when he tried to crawl under the bed, and he is praised for his behavior. When the soldiers return to the scene, the body camera captures the corpse. Based on facial recognition, body build, and clothing, it is assumed to be Ibraheem Abdi, a 73-year-old deaf man found by his family a week after the incident. Once again, we believe the publicly available material justifies

²⁷¹ <https://www.theguardian.com/world/2024/feb/10/im-so-scared-please-come-hind-rajab-six-found-dead-in-gaza-12-days-after-cry-for-help>

²⁷² <https://x.com/MarkZloch/status/1761836349848420591>

²⁷³ <https://www.idf.il/%D7%90%D7%AA%D7%A8%D7%99-%D7%99%D7%97%D7%99%D7%93%D7%95%D7%AA/%D7%99%D7%95%D7%9E%D7%9F-%D7%94%D7%9E%D7%9C%D7%97%D7%9E%D7%94/%D7%9B%D7%9C-%D7%94%D7%9B%D7%AA%D7%91%D7%95%D7%AA/%D7%94%D7%A4%D7%A6%D7%95%D7%AA/%D7%AA%D7%97%D7%A7%D7%99%D7%A8-%D7%90%D7%99%D7%A8%D7%95%D7%A2-%D7%94%D7%A4%D7%92%D7%99%D7%A2%D7%94-%D7%91%D7%A8%D7%9B%D7%91%D7%99-wck-world-central-kitchen-%D7%90%D7%A8%D7%92%D7%95%D7%9F-%D7%A1%D7%99%D7%95%D7%A2-%D7%94%D7%95%D7%9E%D7%A0%D7%99%D7%98%D7%A8%D7%99-%D7%9E%D7%96%D7%95%D7%9F-%D7%9E%D7%9C%D7%97%D7%9E%D7%94-%D7%91%D7%A2%D7%96%D7%94-%D7%98%D7%A2%D7%95%D7%AA-%D7%91%D7%96%D7%99%D7%94%D7%95%D7%99-%D7%94%D7%A4%D7%A8%D7%AA-%D7%A4%D7%A7%D7%95%D7%93%D7%95%D7%AA-%D7%90%D7%99%D7%A8%D7%95%D7%A2-%D7%97%D7%9E%D7%95%D7%A8/>

an investigation into the circumstances of the shooting and if sufficient evidence is found, the pursuit of appropriate legal action.²⁷⁴

Finally, there is footage of the shooting at five Palestinian men walking toward a building where a IDF unit was stationed, allegedly to demand the release of a relative detained for questioning. One appears to be holding a white flag. Shots are fired that seem to come from the direction of two tanks the group was approaching, and Rami Abu Sahloul, 51, is hit. No warning shots or preliminary arrest procedures appear to have been carried out, nor was any verbal warning issued. For this reason, we believe there is sufficient cause for investigation and, if appropriate, criminal proceedings.²⁷⁵

In these cases, a total of 12 Palestinians and seven foreign aid workers were killed.

C. Forensically Confirmed Cases Not Mentioned in Lee Mordechai’s Database (March 2025 version): The Incident of the Paramedics in Tel Al-Sultan

A serious incident took place shortly after Mordechai released the March 2025 update of his database. This was the shooting at ambulances and killing of medical workers in Tel Al-Sultan, Rafah, on March 23, 2025. As of the release of this study, it is widely accepted that IDF soldiers opened fire on ambulances traveling with their lights on, resulting in 15 deaths. The initial IDF report, later proven false, claimed that the soldiers shot at vehicles without lights, and that at least nine of the passengers—including one identified as Mohammad Amin Ibrahim Shubaki—were Hamas or Islamic Jihad fighters.

The bodies were buried by an IDF bulldozer that also crushed the vehicles. According to the IDF spokesperson, a statement about the incident was issued (in English), but the first quotation of that statement in international media did not appear until March 29.²⁷⁶ After the bodies were recovered, Palestinian witnesses claimed that some had been handcuffed and showed signs of execution at close range.²⁷⁷ However, no supporting evidence was presented. As will be detailed below, this claim is likely false.

Later, a video recorded by one of the deceased paramedics surfaced that clearly showed the ambulances with their lights on. A six-minute clip published by *The New York Times*, taken from the camera of one paramedic and supplemented by footage from another, reveals sustained, continuous gunfire over an extended period, concluding with soldiers shouting “Cease!”. The full, unedited footage was not included in the article, and

²⁷⁴ <https://www.idf.il/%D7%90%D7%AA%D7%A8%D7%99-%D7%99%D7%97%D7%99%D7%93%D7%95%D7%AA/%D7%99%D7%95%D7%9E%D7%9F-%D7%94%D7%9E%D7%9C%D7%97%D7%9E%D7%94/%D7%9B%D7%9C-%D7%94%D7%9B%D7%AA%D7%91%D7%95%D7%AA/%D7%94%D7%A4%D7%A6%D7%95%D7%AA/%D7%AA%D7%97%D7%A7%D7%99%D7%A8-%D7%90%D7%99%D7%A8%D7%95%D7%A2-%D7%94%D7%A4%D7%92%D7%99%D7%A2%D7%94-%D7%91%D7%A8%D7%9B%D7%91%D7%99-wck-world-central-kitchen-%D7%90%D7%A8%D7%92%D7%95%D7%9F-%D7%A1%D7%99%D7%95%D7%A2-%D7%94%D7%95%D7%9E%D7%A0%D7%99%D7%98%D7%A8%D7%99-%D7%9E%D7%96%D7%95%D7%9F-%D7%9E%D7%9C%D7%97%D7%9E%D7%94-%D7%91%D7%A2%D7%96%D7%94-%D7%98%D7%A2%D7%95%D7%AA-%D7%91%D7%96%D7%99%D7%94%D7%95%D7%99-%D7%94%D7%A4%D7%A8%D7%AA-%D7%A4%D7%A7%D7%95%D7%93%D7%95%D7%AA-%D7%90%D7%99%D7%A8%D7%95%D7%A2-%D7%97%D7%9E%D7%95%D7%A8/>

²⁷⁵ <https://www.itv.com/news/2024-02-09/gaza-white-flag-shooting-itv-news-analyses-how-the-incident-unfolded>

²⁷⁶ <https://www.france24.com/en/middle-east/20250329-israel-admits-firing-ambulance-gaza-strip-palestine-red-crescent-rescue-hamas-war-crime>

²⁷⁷ <https://www.theguardian.com/world/2025/apr/01/palestinian-paramedics-shot-by-israeli-forces-had-hands-tied-eyewitnesses-say>

the narration makes it difficult to fully understand some of the Israeli soldiers' shouts in the background. The video also refers to several separate incidents, not all of which are documented in the footage.

Initially, soldiers shot at a single ambulance approaching from about 20-30 meters, killing two passengers and arresting another. The detained person claimed he was interrogated violently. He was released the day after the incident, suggesting that whatever professional or moral failures may have occurred, the soldiers either believed their conduct was justified or were not prepared to cold-bloodedly execute a detainee to cover up their misdeed. Notably, two Palestinian pedestrians who witnessed the soldiers' conduct were also detained by the IDF and released at the conclusion of the incident.

The ambulances later passed through the ambush area without being fired upon. They then returned from the tent compound along the same road after one paramedic believed he had seen bodies on the roadside. These ambulances were accompanied by another ambulance and a fire truck with the object, according to *The New York Times*, of reducing the risk of being misidentified and targeted by Israeli forces. The convoy included a total of five vehicles. The IDF told *The New York Times* that a drone operator reported to the soldiers in the ambush that suspicious vehicles were approaching. The ambulances and fire truck turned on their lights. Ground troops could see this, but not the drone; thermal cameras are not effective for identifying ambulance lights.

The shooting began around 5:10 am and lasted at least six minutes, with pauses. It apparently began from a range of about 50 meters and continued as the soldiers left their positions and advanced to about 10 meters from the vehicles. One vehicle tried to escape but was halted by gunfire. In this incident, 12 Palestinians were killed. One was detained by the IDF and released back into Gaza a month later. As of this writing, we have not been able to find an interview with him.

Shortly thereafter, a UN vehicle passed through the area and IDF soldiers opened fire, killing its driver, a Palestinian UN worker. A Palestinian passerby who was detained by IDF soldiers during the incident claimed that later, when daylight came, soldiers shot at the bodies of the dead paramedics scattered on the ground. Afterwards, a bulldozer buried the vehicles and the bodies.²⁷⁸

It was only after articles appeared in *The New York Times* and *Sky News* that the IDF announced a new investigation by the General Staff's Fact-Finding Assessment Mechanism (FFA Mechanism), which is responsible for reviewing exceptional combat incidents. According to the panel's findings, based on materials not released to the public²⁷⁹, the incident involved negligence and professional misconduct but not premeditated executions.

An IDF statement described the event as a sequence of three separate incidents, emphasizing that other vehicles had passed through without being fired upon, and that two pedestrians were stopped and later released along with the survivors of the two shooting incidents. This, the statement suggested, indicates that

²⁷⁸ <https://www.nytimes.com/2025/04/04/world/middleeast/gaza-israel-aid-workers-deaths-video.html>; [Two hours of terror: Sky News investigation reveals how Israel's deadly attack on aid workers unfolded | World News | Sky News](#); <https://www.washingtonpost.com/world/2025/04/10/how-palestinian-first-responders-ended-up-mass-grave-gaza/>

²⁷⁹ ["https://www.idf.il/%D7%90%D7%AA%D7%A8%D7%99-%D7%99%D7%97%D7%99%D7%93%D7%95%D7%AA/%D7%99%D7%95%D7%9E%D7%9F-%D7%94%D7%9E%D7%9C%D7%97%D7%9E%D7%94/%D7%9B%D7%9C-%D7%94%D7%9B%D7%AA%D7%91%D7%95%D7%AA/%D7%94%D7%A4%D7%A6%D7%95%D7%AA/%D7%A1%D7%99%D7%9B%D7%95%D7%9D-%D7%AA%D7%97%D7%A7%D7%95%D7%A8-%D7%A4%D7%92%D7%99%D7%A2%D7%94-%D7%91%D7%A6%D7%95%D7%95%D7%AA%D7%99-%D7%95%D7%A8%D7%9B%D7%91%D7%99-%D7%94%D7%A6%D7%9C%D7%94-%D7%91%D7%A8%D7%A6%D7%95%D7%A2%D7%AA-%D7%A2%D7%96%D7%94/](https://www.idf.il/%D7%90%D7%AA%D7%A8%D7%99-%D7%99%D7%97%D7%99%D7%93%D7%95%D7%AA/%D7%99%D7%95%D7%9E%D7%9F-%D7%94%D7%9E%D7%9C%D7%97%D7%9E%D7%94/%D7%9B%D7%9C-%D7%94%D7%9B%D7%AA%D7%91%D7%95%D7%AA/%D7%94%D7%A4%D7%A6%D7%95%D7%AA/%D7%A1%D7%99%D7%9B%D7%95%D7%9D-%D7%AA%D7%97%D7%A7%D7%95%D7%A8-%D7%A4%D7%92%D7%99%D7%A2%D7%94-%D7%91%D7%A6%D7%95%D7%95%D7%AA%D7%99-%D7%95%D7%A8%D7%9B%D7%91%D7%99-%D7%94%D7%A6%D7%9C%D7%94-%D7%91%D7%A8%D7%A6%D7%95%D7%A2%D7%AA-%D7%A2%D7%96%D7%94/)

the killings were not indiscriminate. This claim was independently verified by a Palestinian eyewitness who confirmed that soldiers did not fire on other passing vehicles, lending it additional credibility.²⁸⁰

The FFA Mechanism denied allegations that some of the victims had been tied before being shot—a denial that was later substantiated by Palestinian medical authorities, which found no evidence of restraints on the bodies.²⁸¹ The FFA further noted that the incident had occurred during operational activity and in the context of Hamas’s prior use of ambulances for military purposes. Nevertheless, due to the deficiencies, the deputy commander of the Golani reconnaissance battalion who led the ambush was dismissed, and the brigade commander responsible for the sector was reprimanded.

Several days later, *Haaretz* reporter Yaniv Kubovich published an article reviewing a report that presented additional findings from the investigation and concluded that the IDF's official publication had been only partial. The article said the chief military prosecutor was considering launching a Military Police investigation and provided relevant background. It revealed that the incident had occurred during a pre-attack ambush ahead of a major offensive in the Tel al-Sultan area—along a route that later served as an evacuation corridor but remained open to civilians and rescue forces at the time of the ambush.

When the first ambulance traveled along the route—through lower terrain and in conditions where its lights were likely visible, and less than half an hour after another brigade force had reported the presence of ambulances but not a threat—the ambush commander decided to alter his mission. The ambush then fired on the ambulance, killing two passengers and detaining a third. A soldier who did not speak Arabic interrogated the surviving paramedic and concluded, mistakenly, that the victims were Hamas members. He passed along this report, including an assessment that the ambush had not been compromised. Later, after four ambulances and an additional fire truck had arrived and came to a stop, the soldiers opened fire—even though the vehicles, upon departure, moved away from the ambush site.²⁸²

By the time the shooting ended—carried out recklessly and without proper coordination, with some soldiers even crossing in front of one another in ways that risked friendly fire—12 paramedics had been killed. Approximately 12 minutes after the incident, the UN worker’s vehicle arrived. According to the IDF, the ambush commander and another soldier opened fire and killed him, this time in violation of orders. This stands in contrast to the previous two incidents, where the gunfire was attributed to misidentification and poor professionalism but not a deliberate breach of orders.²⁸³

The ambush raised fears that the broader operation had been compromised, prompting the IDF to move the attack forward by two hours—resulting in evacuation orders being issued to residents at 6:00 a.m. instead of 8:00 a.m. According to Kubovich, the IDF claimed that on that morning, information about the locations of the vehicles and bodies was shared with international actors. However, initial efforts to locate the bodies failed, and the teams were forced to withdraw. By the time the commander of the 14th Brigade marked the locations the following day, international organizations were no longer able to access the area.

This incident raises serious questions, especially because the initial IDF version was found to be false and because the deputy battalion commander lied during the investigation. It is true the initial Palestinian version claiming that paramedics were forcibly taken and executed at close range is contradicted by both eyewitness

²⁸⁰ <https://www.nytimes.com/2025/04/06/world/middleeast/gaza-medics-killed-israel.html>. “Whenever a car approached, Dr. al-Bardawil recalled, the Israeli soldiers lay flat on the ground and ordered the detainees to follow suit. The soldiers did not fire at any of those vehicles, he said.”

²⁸¹ <https://www.theguardian.com/world/2025/apr/16/autopsies-of-rescue-workers-killed-in-gaza-show-gunshots-to-head-and-torso>

²⁸² <https://www.haaretz.co.il/news/politics/2025-04-23/ty-article/.premium/00000196-5ee3-db89-a5d7-def3d6c70000>. Our own analysis of the original data differs from Kubovich's interpretation of the times, distances and rate of firing.

²⁸³ <https://www.haaretz.co.il/news/politics/2025-04-23/ty-article/.premium/00000196-5ee3-db89-a5d7-def3d6c70000>

Palestinian testimony and Palestinian medical sources²⁸⁴. However, even the most lenient interpretation of the situation indicates neglect of orders, negligence, reckless shooting, low professionalism, and lies told during the investigation. In the worst case, these are suspicions of war crimes warranting criminal investigation.

A few days prior to this incident, the Golani reconnaissance force commander stated that "The purpose of the operation is to free hostages. We exert heavy military pressure, kill many enemies, take a lot of territory—and so far, we have returned hostages," and that "Anyone we meet is an enemy. Recognize a figure—destroy."²⁸⁵ At best, this statement—presented without the full context of the conversation—reflects an assumption that the area was devoid of civilians. At worst, it constitutes an unlawful presumption that anyone present in a combat zone is an enemy combatant. It is easy to see how such a statement, regardless of whether or not the reconnaissance commander intended to harm civilians, could contribute to a lowered threshold for the use of force among soldiers.

However, even this incident—exceptional in scope and unique among those we reviewed—does not constitute a deliberate, close-range massacre. Contrary to initial claims, the IDF did not try to hide the bodies from international organizations but shared their locations, and it was combat activity—not a premeditated plan—that caused the delay in revealing the bodies. Survivors from the incidents were released, not killed, even though they were likely to testify in a way that undermined the soldiers' version. This conduct is difficult to reconcile with the notion of an organized massacre, or even with an attempt to conceal actions subjectively perceived as wrongful or criminal during or immediately after the event.

Furthermore, Kubovich's investigation outlines a chain of errors, each reinforcing a false perception among the ambush team that they were targeting Hamas members. From the moment a drone operator warned the forces, especially given the prior knowledge of Hamas's use of ambulances, it is plausible to see how each event fed into the others. The interrogation of the initial prisoner, which was not supposed to happen, purportedly "confirmed" to the soldiers that they were engaging Hamas personnel, and subsequent developments were interpreted based on that impression.

The basis on which the drone operator identified "suspicious behavior" in the convoy remains unknown. It can be stated with confidence that the interrogation of the medic from the first incident—conducted by a soldier who did not speak Arabic—should never have served as a foundation for any situational assessment. But the question is not just about results or procedural negligence; it is over the motivation for killing.²⁸⁶ The fact that witnesses detained by the ambush forces more than an hour before the main incident were not executed—and that they testified to *The New York Times* that other vehicles passed through the area without being targeted—strengthens the possibility that the ambushers genuinely believed, or had convinced themselves, that they were facing a threat.

In other words, the fact that soldiers did not, in the words of the Golani reconnaissance commander, "shoot everyone they met," suggests that the overall approach—and the soldiers' interpretation of the commander's instructions—did not amount to a policy of deliberately targeting civilians. Furthermore, the testimony of the surviving Palestinian medic from the first shooting incident, who recalled that following a violent interrogation, "an officer came and ordered the soldiers to stop. He called them crazy and said they don't know how to communicate with people," indicates that this was not part of a deliberate massacre policy, but rather the result of an extreme interpretation of the situation on the ground by the soldiers and their commander.

²⁸⁴ <https://www.theguardian.com/world/2025/apr/16/autopsies-of-rescue-workers-killed-in-gaza-show-gunshots-to-head-and-torso>

²⁸⁵ <https://x.com/BittonRosen/status/1908029094173753650>

²⁸⁶ <https://www.haaretz.co.il/news/politics/2025-04-05/ty-article/.premium/00000196-01f8-d6b6-a9df-efbfdb0000?gift=c7f83321ba964c16a2e9a77fd47d1916>

Indeed, the soldiers' unprofessional conduct during the ambush—endangering themselves while assaulting the ambulances—may indicate that they perceived a threat, however unfounded that belief may have been.

In the broader context, the false report issued by the ambush commander—and its subsequent exposure by international media, the Israeli military system, and Israeli society and press—highlights the obstacles faced by IDF soldiers who may be tempted to commit war crimes. Such crimes require not only individuals willing to violate international law, but also the complicity of fellow soldiers, superiors up the chain of command, Palestinian bystanders with cell phones, Israeli civil society, and the media—all cooperating to conceal their actions. In light of the openness of Israeli society and the extensive, often critical, external scrutiny of IDF operations, such reliance is improbable at the very least.

In this incident, 15 Palestinians were killed.

D. Documented Shooting of Civilians Evacuating from the Northern Part of the Gaza Strip - Perpetrator Identity Unclear

Middle East Eye provides a chilling account of Hala, a 58-year-old grandmother, being shot while holding the hand of her four-year-old grandson. The incident occurred on November 12, 2023, after an evacuation notice had been given to residents of Rimal, a well-off neighborhood in western Gaza City. Hala is seen walking in a convoy of evacuees, turning aside as she continues forward. The footage, seemingly shot professionally and steadily from an elevated vantage point overlooking the evacuation, captures her being shot and falling, apparently from a single gunshot. There is no trembling or lens shift during her fall. People nearby and her grandson are unharmed and disperse, and they return to help her without being shot at.

Despite the family of the victim blaming the IDF, no location is described from which the shot was fired. It has been claimed that Israeli tanks were positioned several hundred meters further along the route; however, the single shot and its angle do not align with a flat trajectory from such a distance. The impression from watching the video is that Hala was shot from a sniper position overlooking the street, although there is no conclusive evidence of this. The photographer (likely professional) who filmed the event refused to identify himself for security reasons.

Several scenarios could be suggested to explain the shooting:

1. A vengeful Israeli sniper team deliberately targeted a woman holding a white flag, singling her out from the surrounding crowd. Such an action would not only have exposed their position but also implied that the urge for lethal retribution outweighed the strategic objective of facilitating the evacuation from northern Gaza. Notably, that evacuation served both military and political purposes: it reduced risk to IDF soldiers and enhanced their ability to identify and engage Hamas fighters. Even if the soldiers involved were political extremists, such a shooting could have undermined the far-right agenda of expulsion, annexation, and settlement. In this scenario, the sniper team covered for one another, and no investigation was launched by the IDF despite the high-profile nature of the incident.
2. An Israeli sniper team fired without warning at a woman walking south, outside the approved evacuation route, to prevent infiltration into an area where the IDF was consolidating control.
3. The shot was not fired by an Israeli sniper or tank crew but by a Hamas sniper to deter residents in northern Gaza from evacuating.

We consider the first scenario unlikely, and the second more probable. The third, though speculative, aligns with reports (some based on residents' recordings) of violent prevention, including Hamas firing on Gaza

residents attempting to evacuate during this period²⁸⁷ as well as during IDF operations in Jabalia at the end of 2024.²⁸⁸

It is worthwhile comparing the process by which the identity of the shooter was determined by Lee Mordechai and others with the process by which the identity of groups attacking fleeing civilians in Mosul in 2017 was determined. During that siege, unidentified armed groups detonated explosives and shot at civilians trying to evacuate.²⁸⁹ There is no forensic evidence definitively proving who murdered the civilians fleeing that battle. Were they besieged ISIS fighters killing the Sunni civilians for whom they claimed to have seized the city? Were they Shiite Popular Mobilization fighters involved in killing and expelling Sunnis from mixed neighborhoods during the Iraq War who had moved to block evacuation routes intended for civilians in accordance with American plans?²⁹⁰ Or were they Kurdish Peshmerga fighters whose ancestors had been expelled from Mosul by Saddam Hussein's Ba'athist regime? Given ISIS's operational patterns and motives, the prevailing assumption is that they were the ones who fired on the evacuees.

Lee Mordechai and the sources he relies upon operate on the assumption that Palestinian casualties in Gaza, even when those casualties clearly served Hamas's strategic objectives, must, by default, and to the exclusion of all other possibilities, be attributed to Israeli actions. This is despite Hamas repeatedly demonstrating a willingness to endanger civilian lives—including, at times, killing them directly. Our position is that at a minimum, such assumptions should be avoided when alternative explanations exist and no clear forensic evidence identifies the source of fire. As a result, key questions remain unanswered, just as they do in similar reports of gunfire directed at Palestinians attempting to evacuate southward.²⁹¹

In these incidents, a total of four Palestinians were killed.

E. Incidents Involving Identified Victims Corroborated by Multiple Palestinian Testimonies

There are also incidents—based solely on Palestinian eyewitness testimonies without supporting forensic evidence—in which victims are clearly identified and the account of events is corroborated by several Palestinian witnesses.

One example is Sky News's report of a December 2023 break-in at a Palestinian family home in the Mahatta neighborhood in Khan Younis where a father, mother, aunt, and three children were present despite having received an evacuation notice.²⁹² According to the aunt and children who survived, Israeli soldiers broke in with grenades, killing the father at the entrance and seriously injuring the mother and a young child in the kitchen. Lee Mordechai frames this outcome as evidence of intentional murder. However, the fatal misidentification and shooting of civilians, particularly during intense urban combat clearance operations against combatants holed up in residential buildings, is not necessarily a war crime, though it can result from excessively permissive rules of engagement.

Nevertheless, the testimony cited in support of the claim—raising suspicion that this was more than a tragic case of fatal misidentification—comes from the aunt and the children of the slain parents. They claim that

²⁸⁷ <https://www.mako.co.il/pzm-soldiers/Article-a6428064f34bb81026.htm>

²⁸⁸ <https://www.israelhayom.co.il/news/defense/article/16611404>

²⁸⁹ <https://www.bbc.com/news/world-middle-east-40146724>;
<https://www.aljazeera.com/news/2017/6/6/un-isil-kills-163-people-in-mosul-in-one-day>;
<https://reliefweb.int/report/iraq/iraq-isis-attacking-civilians-mosul-retreat>;

²⁹⁰ <https://the arabweekly.com/how-iran-closed-mosul-horseshoe-and-changed-iraq-war>

²⁹¹ <https://edition.cnn.com/videos/world/2023/11/17/exp-israel-gaza-hamas-evacuation-jomana-karadsheh-fst-111712pseg2-cnni-world.cnn>

²⁹² <https://www.youtube.com/watch?v=3RDXQapOtUg>

after the mother was severely wounded, Israeli soldiers executed her while she was bleeding in the kitchen before giving them a white flag and ordering them to evacuate along a designated route. Although doubts can be raised about a scenario in which soldiers intentionally murder a wounded mother while sparing the uninjured aunt and ensuring the children's evacuation, we believe this case warrants investigation. Whether a soldier entering the room mistakenly identified a threat where there was none or deliberately murdered a woman he did not believe posed a threat, the event should be examined and lessons learned. If the evidence warrants it, legal steps should be taken.

Another account, from ITVx, describes evidence of the killing of a handicapped person named Najib.²⁹³ According to relatives and other witnesses, soldiers detained a group containing Najib who were seeking shelter in Al-Hayir Hospital. They demanded they sit quietly even after his sister informed them that her brother was handicapped. Najib stood up and repeatedly shouted, and an officer threatened to shoot him if he did so again ("the sixth time") – then carried out his threat. As with several of the previous accounts we have examined, these deeply troubling testimonies warrant a thorough investigation and, if supported by the evidence, the pursuit of criminal charges—not only because of their tragic outcome, but also to uphold international and Israeli law, as well as fundamental moral and ethical standards.

Finally, another testimony describes the death of a detained and shackled Palestinian who was forcibly sent to Nasser Hospital in Khan Younis to order those present to evacuate.²⁹⁴ Israeli court rulings clarified as early as 2005 the explicit prohibition in the Fourth Geneva Convention against using civilians for military purposes.²⁹⁵ This includes, among other practices, the use of Palestinian civilians to support military operations, such as conveying warnings to other Palestinians.²⁹⁶ If only for this reason, and even in cases where actual harm did not occur, these claims warrant thorough investigation, alongside recurring reports of the unlawful use of Gazan detainees to detect IEDs (a reprehensible practice known as the 'Mosquito Procedure').²⁹⁷ The military command must take immediate, effective steps to end this forbidden practice and punish those responsible.

In these cases, four Palestinian civilians were killed.

F. Cases Based on Single or Unreliable Witnesses

Lee Mordechai also includes claims based on Palestinian eyewitness accounts that are less credible or even unsubstantiated. Here are some examples:

- EuroMed Monitor²⁹⁸ and *Middle East Eye* claimed that during the second raid on Shifa Hospital, the IDF forced an evacuated family to leave behind a 94-year-old grandmother unable to walk and

²⁹³ <https://www.itv.com/news/2024-03-01/he-didnt-understand-disabled-man-shot-dead-in-gaza-hospital-by-idf>

²⁹⁴ <https://www.nbcnews.com/news/world/israel-hamas-war-gaza-nasser-hospital-man-shot-dead-evacuation-warning-rcna139978>

²⁹⁵ Convention (IV) relative to the Protection of Civilian Persons in Time of War, Geneva, 12 August 1949, Article 51 - <https://ihl-databases.icrc.org/en/ihl-treaties/gciv-1949/article-51?activeTab=>

בג"ץ 3799 עדאלה – המרכז המשפטי לזכויות המיעוט הערבי בישראל ואח' נ' אלוף פיקוד המרכז ואח' (2005).
²⁹⁷ <https://www.nytimes.com/2024/10/14/world/middleeast/israel-gaza-military-human-shields.html> .
<https://www.haaretz.co.il/news/politics/2025-01-07/ty-article/.premium/00000194-4156-dfbb-a7bc-6f76fc880000>

²⁹⁸ <https://x.com/NourNaim88/status/1777521805420269651> (photo of living grandmother and claim, no other verification), <https://x.com/RamAbdu/status/1770897340364095722>, (dead link, no video),

suffering from dementia. According to the daughter-in-law, when she tried to evacuate her, an IDF officer forbade it and said he would take her himself. Her body was reportedly found burned in her home weeks later.

- Muhammad Shehada, a EuroMed Monitor employee, claimed that an Israeli soldier shared a video of himself running over a Palestinian with a tank (broken link).²⁹⁹
- Muhammad Shehada shared a photo of amputated legs with the claim that the IDF had run over the body with a tank.³⁰⁰
- A EuroMed Monitor report described the IDF running over Palestinians with tanks.³⁰¹
- *Middle East Eye* issued reports of tank-runovers that have since been removed.
- A tweet by a young Palestinian claimed he witnessed the shooting of an unnamed elderly man at a checkpoint on the way to Rafah, followed by his burial with a bulldozer. After the burial, the checkpoint was reportedly reopened to Palestinian traffic.³⁰²
- A claim was made that a sniper shot a Palestinian who was simply sitting on a rooftop. The video shows a body, but provides no reliable information regarding the victim's identity or the circumstances of the shooting.³⁰³
- An unverified claim was made by Palestinians about the execution of up to four people, names unknown, during arrests and interrogations of men separated from their families in the Rimal neighborhood of Gaza City. It is claimed that the executions took place in the presence of interrogators and witnesses who were later released and sent southward through the Netzarim corridor. It was promised that the names of the victims would be published later but this has not occurred, raising doubts about the credibility of the claim.³⁰⁴
- A video shows a Palestinian girl mourning after witnessing her mother being shot in the heart by Israeli forces.³⁰⁵

In these cases, the total death toll of alleged victims is up to 11 Palestinian civilians.

G. Documented Cases Where Military Justification for Killings Is Context-Dependent

In two further cases, Lee Mordechai presents drone fire against seemingly unarmed Palestinians as the deliberate killing of civilians. However, after reviewing the videos, we cannot rule out the possibility of a plausible military justification for the killings:

- In one case, soldiers leaked a video showing the killing of five Palestinians while they led a horse-drawn cart. After the drone strike, there is a disproportionate explosion with a possible secondary explosion, indicating that an explosive device may have been hit. Although leaking the video

<https://www.middleeasteye.net/news/war-gaza-israeli-army-forces-family-leave-94-year-old-grandmother-behind>

²⁹⁹ <https://x.com/muhammadshehad2/status/1763469843070697726>

³⁰⁰ ³⁰⁰ <https://euromedmonitor.org/en/article/6202/Israeli-tanks-have-deliberately-run-over-dozens-of-Palestinian-civilians-alive>

³⁰¹ <https://www.middleeasteye.net/news/israelsoldier-boasted-running-over-dead-palestinian-man-tank>

³⁰² <https://x.com/ytirawi/status/1771589516920238241>

³⁰³ <https://x.com/NourNaim88/status/1761163980947558806>

³⁰⁴ <https://x.com/ytirawi/status/1772925436231598415>

³⁰⁵ <https://twitter.com/NourNaim88/status/1779892829231140976>

clearly constitutes a serious breach of discipline, there is no clear indication that the shooting lacked an intelligence or operational justification.³⁰⁶

- In another case, leaked drone footage shows the killing of four young Palestinian men as they wandered through the ruins of Khan Younis following an Israeli military operation and before the IDF had officially authorized the return of residents. Seconds later, a second missile explodes.³⁰⁷

It is worth noting that both cases visually conform to documented patterns of the planting of IEDs by Palestinians in civilian clothing. Given that many weapons were pre-placed in homes and civilian infrastructure across the Gaza Strip, there is no need for prior identification of visible weapons to justify the shooting. Also, targeted killings based on early intelligence are possible; the possible secondary explosions in the first case suggest that the people shot might have held explosive materials.

In these cases, nine unidentified Palestinians were killed.

H. Less Credible Cases with Possible Military Justification

Other cases involving purported footage of killings—while suspicious—raise concerns about possible fabrication, as well as the potential for military justification.

For example:

- Alleged Al Jazeera videos³⁰⁸ purporting to show gunfire directed at Palestinians approaching the border fence have been presented as credible evidence of unjustified killings. However, analysis of the footage raises doubts regarding the shooting angle, the camera perspective, and the credibility of the event itself. A mound of earth obscures the shooter's view of the barrier, making it difficult to understand how a bullet from that position could have struck the target or produced the visible dust clouds. It is even more difficult to understand how the footage could have been recorded from multiple angles and fixed positions during the gunfire—especially given the lack of camera movement, which makes it appear as though the shots were fired from the direction of the camera itself. Even if the shooting occurred as described, it took place near the border fence after the October 7 massacre and despite repeated warnings against approaching the area.
- Four undated videos each show a lone Palestinian walking north on the beach, raising his hands, and falling.³⁰⁹ In one clip, the victim may be part of a group of young men continuing north while he is shot. All seem to occur in roughly the same area. It appears the shooting was carried out from the east, away from the coast, while the footage was taken from the north, deep within Netzarim corridor. It is hard to understand how the footage was taken. In any event, what is being supposedly depicted is not random shooting of pedestrians who happen to be wandering on the beach but shooting at individuals who deliberately entered a prohibited zone six months after it was announced. That said, we note that, as a matter of law, the IDF cannot declare 'killing zones' in which any infiltrator may be shot on sight. Only heightened-risk areas may be designated, where warning and arrest procedures are abbreviated before opening fire.

³⁰⁶ <https://twitter.com/ytirawi/status/1770919159800402148>

³⁰⁷ <https://x.com/GozukaraFurkan/status/1770919234278740269> In our first Hebrew version we mistakenly attributed the second missile to a secondary explosion. We apologize for this mistake. <https://x.com/GozukaraFurkan/status/1770919234278740269>

³⁰⁸ <https://twitter.com/QudsNen/status/1775960365630624249>

³⁰⁹ <https://x.com/SaulStaniforth/status/1800790290783248589>

- A compilation by EuroMed Monitor of several videos³¹⁰ shows the shooting of a Palestinian walking north on the beach, combined with footage of mass graves of Palestinians buried by bulldozers—while other Palestinians watch without apparent fear.
- A video has circulated purporting to show an Israeli sniper shooting a Palestinian who was attempting to evacuate a wounded individual.³¹¹ The title states that it shows the "Execution of a civilian trying to recover a dead boy". However, everyone in the video is clearly an adult male. The clip shows an additional two men waiting at the corner of the street, one looking carefully out and the other waiting not far behind, before they run back down a street adjacent to that in which the shooting takes place. The clip is taken from a high floor or a drone and lacks sufficient resolution or context.³¹² Also, there is a cut – barely visible – in the video that shows two Israeli soldiers in a different place and time before returning to the clip itself. Without context, there is no way to tell if the persons shot were civilians or combatants clad in civilian clothes. In an interview conducted with Daniel Raab, who self-identified as part of the sniper team responsible for the killing, he specifically described the incident in the context of battle in an area mined by Hamas and containing a tunnel, and he further claimed that both men were terrorists. He admitted that the second man was unarmed but claimed that as he was attempting to drag away the body of a terrorist during a battle, he was a legitimate target. While Palestinian activist Younis Tirawi—who, on October 7, 2023, outrageously referred to an elderly Israeli hostage as a “prisoner of war”—claims that those who were shot posed “no threat whatsoever,” this assertion disregards the testimony of his primary witness, the sniper himself, who states that the incident occurred during active combat.³¹³

These events allegedly depict the deaths of ten unidentified Palestinians.

It is worth noting two points regarding these videos:

First, none of the alleged victims have been identified by name, despite over a year passing since the videos’ release. Given the Palestinian Ministry of Health’s pattern of identifying all victims, especially those not involved in the fighting, this omission may indicate intentional concealment.

Second, sources including human rights organizations, UN agencies, and numerous media outlets appear to assume that any use of force against individuals entering areas designated as prohibited combat zones, even if the designation was made months beforehand, is directed at innocent civilians unless proven otherwise. They also assume that the shooters act out of murderous intent—or, at best, in an attempt to blindly and lethally enforce the prohibited zone—without reference to operational risk assessments or adherence to rules of engagement grounded in relevant principles of international law. It is important to note that the gradual erosion of the security perimeter between Gaza and Israel prior to October 7 allowed Hamas to plant explosives near the border and prepare for the breach that occurred on that day. Hamas specifically demanded the reduction of the security perimeter before the war, allegedly to extend the agricultural fields in Gaza, but

³¹⁰ <https://twitter.com/RamAbdu/status/1773065074162213322>

³¹¹ According to Palestinian activist Younis Tirawi, the footage was filmed by an Israeli paratrooper and shared on social media. A later source points to the YouTube account of Israeli paratrooper Shalom Gilbert, although the video had since been taken down. It is not known if the clip was edited and cut by Gilbert or by Tirawi. Tirawi later used this material and more in a 38-minute documentary about alleged war crimes, much of it based on some of the clips analyzed here.

³¹² In the first version of this document we mistakenly attributed to Tirawi the claim that the video was shot by a sniper. We regret this mistake.

³¹³ <https://x.com/ytirawi/status/1790893499115606334>, around minutes 17:00-20:00

in reality to help prepare for the October 7 attacks.³¹⁴ Therefore, the assumption that individuals approaching the fence are **necessarily** innocent civilians is unfounded.³¹⁵

To conclude this part, a general remark is in order: It is not possible to determine from brief video clips whether the individuals depicted are civilians misidentified as combatants, combatants positively identified by the IDF prior to the strike, or individuals targeted based on the shooters' professional judgment without definitive proof of their status.

We reiterate that in the combat environment of Gaza—where Hamas pre-positioned large numbers of small arms caches across the urban landscape and where easily concealable IEDs are a central mode of warfare—Hamas operatives almost invariably appear indistinguishable from civilians, except in the moment immediately preceding an attack.

The purpose of this analysis is not to establish the threshold under IHL for the lawful use of force in such circumstances. In any case, no universal or rigid standard applies. Neither we, nor virtually any external observer lacking access to the specific intelligence available to field commanders, are in a position to make such determinations, regardless of expertise. Moreover, the videos themselves do not reveal what additional intelligence may have informed the targeting decisions. In the absence of clearer information regarding the source of the footage, we also lack sufficient grounds to request further clarification from military authorities.

What is clear, however, is that none of the reviewed videos depicts close-range executions of helpless captives—a practice that would be unlawful under any circumstances, irrespective of available intelligence. Were such executions a widespread phenomenon, we would expect these types of videos to constitute the visible tip of a much larger pattern of abuse.

I. Cases of Killing Due to Coordination Failures

In two other cases, Lee Mordechai describes the deaths of two Palestinians and a UN worker due to coordination failures.

Mordechai quotes an investigation from *+972 Magazine* describing the killing of two Palestinian infrastructure workers after they had coordinated their work with the IDF, but neglects to mention that the two strayed from the route they had been instructed in writing to follow.³¹⁶ The *+972 Magazine* investigation accepts claims of their having received verbal approval to alter the route as accurate despite the absence of any supporting evidence, though we see their testimonies as credible. As a survivor said, "Do you think we want to go to our death?"³¹⁷ The shooting thus seems to be the result of faulty coordination on the part of the IDF and a failure to update one of the units with the change in the preapproved route. This is another case that demands a serious investigation.

The first incident in which a foreign UN worker was killed took place in May 2024. A tank fired at a vehicle marked with UN symbols. The IDF claimed the vehicle was passing through an active combat zone without prior coordination.³¹⁸ Notably, an American security company that monitored vehicle movements during

³¹⁴ <https://www.ynet.co.il/news/article/hkrvxm2pve>

³¹⁵ <https://www.washingtonpost.com/investigations/2023/11/17/how-hamas-breached-israel-iron-wall/> (see especially from min.10:14 in the attached video), as well as <https://www.ynet.co.il/news/article/hkrvxm2pve>

³¹⁶ לי מרדכי, "עדות על מלחמת חרבות ברזל", (מעודכן ל-9.3.2025), עמ' 25.

³¹⁷ <https://www.972mag.com/paltel-workers-gaza-israeli-army/>

³¹⁸ <https://www.haaretz.co.il/news/politics/2024-05-23/ty-article/.premium/0000018f-9c76-d6da-a1cf-ff76832b0000>

the second ceasefire in January 2025 identified a UN vehicle (or a fake UN-marked vehicle) used for smuggling as early as its second day of operations.³¹⁹

Two Palestinians and one international worker died in these incidents.

In summary, ignoring the unreliability of some cases presented by Mordechai, his extensive sources depict incidents allegedly leading to the unjustified killing of 51 out of 50,021 reported killed by Gaza's Ministry of Health by May 2025, and eight foreign casualties. To interpret these events as indicators of practices and intentions that are not merely murderous but genocidal—within a conflict arguably the most covered in the world—is far-fetched at the very least. This is true even if we add the 15 paramedics and UN workers shot by the IDF in Tel al-Sultan in March 2025.

From a military historian's perspective, even if all these incidents occurred without reasonable military justification—and even if, as we also assume, they represent only the visible portion of a broader pattern of undocumented war crimes—they still appear to constitute the tip of a relatively small iceberg, pointing to a phenomenon of limited scope when compared to both historical and contemporary conflicts. **Based on the pattern we identified, most suspected violations tended to occur in one of three contexts: during house clearances; in ambushes where troops believed they were engaging Hamas fighters (even if that was not the case); or, most frequently, in areas designated by the IDF as prohibited zones or when unidentified civilians approached military positions. Crucially, there is no forensic evidence of large-scale close-range massacres or systematic executions of restrained prisoners.**

This is relatively uncommon in comparable conflicts. For example, the March 2025 Alawite Coast massacres, in which "only" between 1,084 and 2,191 people³²⁰ were killed, dozens of verified videos and photos exist of close-quarter executions.³²¹ Similarly, the Second Iraq War and the fight against ISIS in Mosul produced several documented close-range massacres and executions by Coalition forces and their Iraqi allies.³²² The massacre carried out by Russian forces in Bucha, Ukraine, remains disputed with regard to the exact number of victims; however, extensive visual evidence confirms that the atrocity was deliberate, carried out at close range and in cold blood.³²³ Finally, the Hamas-led massacre on October 7, 2023, generated a vast trove of harrowing visual footage documenting close-range killings and executions of Israeli men, women and children carried out within just a few hours.³²⁴

Therefore, it is all the more clear that the available evidence falls short of establishing the specific intent required to prove the systematic and targeted commission of intentional mass killings by the IDF in Gaza.

³¹⁹ <https://www.ynet.co.il/news/article/rjxgpfkujx>

³²⁰ <https://news.snr.org/2025/03/17/daily-update-extrajudicial-killings-in-the-wake-of-events-in-the-coastal-region-from-march-6-to-march-17/>, <https://www.syriahr.com/en/358387/>

³²¹ <https://www.hrw.org/news/2025/03/10/syria-end-coastal-killing-spree-protect-civilians>, <https://www.youtube.com/watch?v=hZPquSRCINI>, <https://www.youtube.com/watch?v=2IZflro7XMY>

³²² <https://www.wsj.com/video/footage-us-soldiers-fire-on-iraqi-civilians/7B813170-68ED-4918-9813-4DD7BF32D79B>, <https://www.youtube.com/watch?v=o4j50ghDeKA>, <https://abcnews.go.com/International/watchdogs-iraqi-troops-beat-execute-mosul-prisoners-videos/story?id=48645312>

³²³ Reality Check and BBC Monitoring, "Bucha killings: Satellite image of bodies site contradicts Russian claims", BBC Online, 22 April 2022, <https://www.bbc.com/news/60981238>

³²⁴ https://leekern.substack.com/p/detailed-description-of-hamas-massacre?utm_campaign=post&utm_medium=web&triedRedirect=true

J. Dubious Allegations of Mass Killings and Executions Based on Hamas-Linked Entities

Most of Mordechai's unjustified killing cases are hidden in a short paragraph constituting less than 10% of his claims.³²⁵ In this paragraph, he cites reports from an organization alleging dozens of "executions"³²⁶ and the killing of hundreds of Palestinians waiting for food convoys.³²⁷ He also mentions claims reviewed by Hossam Shabat, an Al Jazeera journalist who was in fact a Hamas military activist, regarding mass executions at Shifa Hospital during the IDF's second raid.³²⁸

Mordechai notes that these "NGO" claims (which are actually the claims of EuroMed Monitor, a Hamas-affiliated entity) received little coverage in Israeli media.³²⁹ Nor were they covered by international media or established human rights organizations like HRW or Amnesty. This is not surprising, as these claims lack any factual, forensic, or other basis.³³⁰ We will dwell further on EuroMed Monitor's Hamas affiliations in Chapter 8.

K. Allegations of Deliberate Killing of Children by Snipers

Finally, *The New York Times* and other sources cited interviews with American physicians who visited Gaza under the auspices of the Palestinian American Medical Association (PAMA).³³¹ These medical practitioners claim to have treated a high number of Gazan children injured by Israeli (presumably sniper) fire with precise single bullets to the head or chest. They report that during their stay in Gaza, **each of them** encountered such injuries **daily**, amounting to 99 daily cases at least. The articles also quote volunteer doctors and Gaza residents who suggest that much of this shooting was carried out by drones armed with sniper rifles.³³²

At face value, this testimony appears highly credible: American medical professionals are attesting to targeted, lethal shooting aimed systematically at Palestinian children, including infants and toddlers. If true, this would provide the most conclusive evidence yet of intentional murderous conduct by Israeli troops. However, as will be shown below, this claim has low credibility, casting doubt not only on the reliability of

³²⁵ לי מרדכי, "עדות על מלחמת הרבות ברזל", (מעודכן ל-9.3.2025), עמ' 26.

³²⁶ <https://euromedmonitor.org/en/article/6259/New-Report:-Killing-starving-Palestinians,-targeting-aid-trucks-is-a-deliberate-Israelipolicy->

³²⁷ <https://euromedmonitor.org/en/article/6259/New-Report:-Killing-starving-Palestinians,-targeting-aid-trucks-is-a-deliberate-Israelipolicy->

³²⁸ <https://www.youtube.com/watch?v=IlerY4M9kQc>

³²⁹ <https://www.youtube.com/watch?v=IlerY4M9kQc>

³³⁰ https://www.inss.org.il/social_media/behind-the-scenes-at-the-hague-involvement-of-red-green-alliance-elements-through-human-rights-organizations/

³³¹ We note that while Mark Pearlmuter and Feroze Sidhwa (<https://electronicintifada.net/people/feroze-sidhwa>), the primary presenters and organizers of the letter submitted to President Biden, are openly associated with the PAMA medical mission to Gaza (<https://www.youtube.com/watch?v=qB-wOSP72TE>) and initially described their arrival, along with that of others, as being organized by PAMA (<https://www.politico.com/news/magazine/2024/07/19/gaza-hospitals-surgeons-00167697>), not all the doctors who signed the letter arrived under PAMA's auspices. Some came from the UK, under the guidance of similar organizations. For clarity and ease of reference, we will henceforth refer to all the letter's signatories as being associated with PAMA.

³³² לי מרדכי, "עדות על מלחמת הרבות ברזל", (מעודכן ל-9.3.2025), עמ' 17,20. לעדויות הרופאים ראו: <https://www.theguardian.com/world/2024/apr/02/gaza-palestinian-children-killed-idf-israel-war>, <https://www.nytimes.com/interactive/2024/10/09/opinion/gaza-doctor-interviews.html>, <https://www.gazahealthcareletters.org/usa-letter-oct-2-2024>

the medical group itself but also on the use of this type of activist eyewitness testimony—not only in the Gaza war, but in other cases as well.

First, the average number of daily injuries between February and April 2024 was 130.³³³ Assuming, for the sake of discussion, that the proportion of children among the injured mirrors that among the fatalities, as reflected in updated data from the Gaza Ministry of Health, this would amount to an average of 40.5 injured children per day. How many of these are likely to have been struck by a single bullet to the head or chest?

A study by Abd Al-Karim Al-Salqawi and Richard Villar at Shuhada Al-Aqsa Hospital in Deir Al-Balah, which supposedly served only civilians, found that 82% of trauma injuries resulted from explosions and collapse of structures. Only 8% involved gunshot wounds. This hospital served areas subject to Israeli ground incursions at the time, specifically Khan Younis.³³⁴ All gunshot injury cases in this study were identified as males (age not specified). Only 26 of the 110 patients were children of both genders (23%), males of all ages accounted for 72 patients (63%). Adults of both genders aged 18-35 accounted for 56 of the patients (52%). While no detailed breakdown of injury location was provided, only 3% of **all** injuries (gunshot and others) involved head wounds. A later study in the same hospital, by different authors (Mo'men Alasarr et al) referred to a larger sample of cases (500), confirmed these patterns (20% of injuries to the chest, 60% to the abdomen, 10% to “other”), though without any age or cause of injury distributions. While not enumerating the specific number of head injuries, they noted that as such wounds were almost inevitably fatal, and so they rarely reached the surgical department.³³⁵

In addition, a more recent study (published May 2025, based on data from May 2024) was made in the European Hospital in Khan Yunis, where many of the PAMA associated physicians volunteered, precisely when they were present. It found that of the 41 primary injuries recorded for surgical intervention, only 4-5³³⁶ (10-12%) were children and only 1 of the 7 secondary cases (14%) were children.³³⁷ 70% of the cases were male. None of the surgical operations performed involved skull trauma.

Finally, a study published by Medical Sans Frontiers teams operating in Gaza examined the **22,637** patient consultations they provided for traumatic injuries between January 2024 to December 2024 – a sample amounting to some 20% of the traumatic injuries claimed by the GMOH during that time (140,000 up to the January ceasefire) in six hospitals in southern and central Gaza (Al Aqsa Hospital, Al Mawasi Primary Healthcare Centre [PHC], Al Najar Hospital, Deir el Balah PHC, Khan Younis PHC, and MSF Field Hospital).³³⁸ One cannot claim that this is an unrepresentative sample. The researchers found that gunshots accounted for 11.3% of all wound care-related consultations (not necessarily patients) whereas bombs and shelling's accounted for 83%.

The first study we have mentioned (Salqawi and Villar) was published about a month after the PAMA-associated doctors returned from Gaza, and was therefore available on PubMed at the time of the *New York Times* publication.³³⁹ However, *The New York Times* did not fact-check to see what the existing medical

³³³ <https://data.techforpalestine.org/docs/casualties-daily/>

³³⁴ <https://www.reuters.com/world/middle-east/exhausted-gaza-medics-struggle-help-casualties-israeli-bombardment-2024-01-11/>; <https://msfsouthasia.org/witness-to-resilience-inside-gazas-al-aqsa-hospital-with-msfs-marie-aure-perreaut-revial/> “In Mid-November MSF started supporting the Shohada Health Centre, the biggest provider of primary health care in Khan Younis.”

³³⁵ <https://applications.emro.who.int/EMHJ/V31/02/1020-3397-2025-3102-68-72-eng.pdf?ua=1>

³³⁶ The researchers classified patients in age groups 10-19

³³⁷ <https://www.ssph-journal.org/journals/international-journal-of-public-health/articles/10.3389/ijph.2025.1607877/full#T1>; we note the authors couched these findings apologetically, reiterating that the GMOH data showed most killed and injured to be women, children and elderly.

³³⁸ [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(25\)01386-8/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(25)01386-8/fulltext)

³³⁹ <https://www.medrxiv.org/content/10.1101/2024.06.27.24309570v1.full>

research, partial as it was, said about injury patterns in Gaza.³⁴⁰ Instead, various sources uncritically quoted volunteer doctors, most of whom claimed that **every day** they treated a **pre-teen** child injured in the head or chest by sniper fire (our emphasis):

*"Specifically, every one of us on a daily basis treated pre-teen children who were shot in the head and chest."*³⁴¹

Mark Perlmutter, one of the two main spokespersons of the PAMA mission, claimed:

*"Overwhelmingly, our victims were children. I would say 70–75% of the people we operated on were elementary school age or younger."*³⁴²

Yet, as of May 3, according to the Gaza Ministry of Health itself, the hospital where Perlmutter volunteered had treated 1,264 children's injuries, 1,581 women's injuries, and 3,797 men's injuries. Children accounted for 16% of the injured, not 75%. It is possible Perlmutter was treating children for valid medical reasons, prioritizing the most severely injured. Regardless, if his conclusion was based on working in crowded departments mostly filled with injured adult men over weeks, his claim that three-quarters of the patients requiring surgery were children is unreliable.

Of course, Perlmutter is not the only one to err. Volunteers at the Kamal Adwan hospital³⁴³ claimed:

*"I did not see fighters [...] I had no idea anyway [...] Most people I treated were women and children."*³⁴⁴

And at Al-Aqsa Hospital:

*"What I overwhelmingly saw was children."*³⁴⁵

All emphasized that they mainly treated and **saw** children—even though adult men were the largest group of patients during their volunteering sojourns, both in general hospitals and in those where they volunteered, according to data from the Gaza Ministry of Health itself.

We reiterate: even if all injured children from February to April were gunshot victims, and even if all gunshot injuries involved head or chest wounds, and even if all injuries were from a single bullet, and even if all were from sniper fire, and even if they were all treated by the PAMA-associated doctors, their claims would still be incompatible with possible reality. Given the relative rarity of gunshot injuries overall and head injuries in particular, based on the limited available data, these claims seem far-fetched—as any basic fact check would have revealed. Indeed, this would be absurd even if all children reported killed by the GMOH during the relevant timeframe (about 30% of the number injured) had also been brought to them for treatment.

Furthermore, PAMA-associated doctors support their testimonies with CT scans allegedly showing bullets in children's heads.³⁴⁶ However, according to our in-depth consultations with forensic, neurosurgical, and related medical experts, it appears highly doubtful that one can reach a definitive conclusion regarding who shot these children and under what circumstances without further information and verification of the chain

³⁴⁰ <https://www.medrxiv.org/content/10.1101/2024.06.27.24309570v1.full>

³⁴¹ <https://www.sadaka.ie/wp-content/uploads/2024/07/Letter.pdf>

³⁴² <https://witnessing-the-gaza-war.com/testimonies/mark-perlmutter-and-feroze-sidhwa-11-4-24/>

³⁴³ <https://www.msnbc.com/all-in/watch/-apocalyptic-american-surgeon-on-histwo-weeks-inside-gaza-s-ruined-hospitals-211566661657>.

³⁴⁴ <https://www.msnbc.com/all-in/watch/-apocalyptic-american-surgeon-on-histwo-weeks-inside-gaza-s-ruined-hospitals-211566661657>.

³⁴⁵ Christiane Amanpour, "UK doctor back from Gaza: I'm ashamed that we're doing this to fellow humans", *CNN*, 18 January

2024, <https://edition.cnn.com/videos/world/2024/01/18/intv-amanpour-deborah-harrington-obstetrician-gaza.cnn>.

³⁴⁶ <https://www.youtube.com/watch?v=9sclVFfmN9k>, <https://www.nytimes.com/interactive/2024/10/09/opinion/gaza-doctor-interviews.html>

of custody and authenticity of the scans (see appendix 1). If the images are authentic, the most reasonable explanation for the non-deformation of skull shape, the bullet remaining unshattered and uncrushed, and the entry wound being difficult to see, is that the bullet was low velocity and entered the skull apex. This explanation is most consistent with unintentional injuries caused by bullets that fall to the ground following a high, non-flat trajectory after losing most of their velocity. Many bullets have been fired in Gaza by all sides, so such injuries are not only possible but plausible. However, we emphasize that no definitive conclusion can be reached without additional forensic evidence.

Another claim made by PAMA-associated doctors is that none of them saw any signs of Hamas activity, weapons, or presence in the hospitals during 254 consecutive weeks of continuous work:

The 99 signatories to this letter spent a combined 254 weeks inside Gaza's largest hospitals and clinics. We wish to be absolutely clear: not once did any of us see any type of Palestinian militant activity in any of Gaza's hospitals or other healthcare facilities.³⁴⁷

It should be noted that shortly after this astonishing claim, Fauzia, a Yazidi woman sold into Hamas captivity in Gaza and who escaped during the fighting, testified that she was forced to work in the hospital for several months and saw armed presence there daily—specifically at Shuhada Al-Aqsa Hospital in Deir Al-Balah.³⁴⁸ Similarly, Dr. Baxtiyar Baram, a non-PAMA affiliated Kurdish doctor who volunteered at Al-'Awda and Kamal Adwan hospitals (where many of the PAMA volunteers worked), also testified that Hamas exploited hospitals as bases, including to hide its leaders.³⁴⁹ In one case on October 11, 2023, a video showed Hamas fighters near the entrance to al Shifa Hospital, while allegedly the photos taken by news agencies contained no trace of those fighters.³⁵⁰

A similar reality is reflected in the testimonies of Israeli hostages. Some described their reception at Shifa Hospital after being kidnapped: they were surrounded in the hospital by their armed kidnappers and by medical teams who cheered at the sight of their captivity.³⁵¹ Other hostages were held at Nasser Hospital for five weeks in rooms separated only by cardboard boxes from an active hospital area providing treatment to Gazan patients.³⁵²

It is hard to believe that scenes observed by a Yazidi teenager with no interest in the Israeli-Palestinian conflict could be hidden from the eyes of 100 doctors affiliated with the Palestinian-American Medical Association. It is also worth noting that another volunteer doctor, Dr. Victoria Rose—who worked at the European Hospital in Khan Younis—claimed she never saw any armed Hamas fighters, even though the entrance to the tunnel where Hamas leader Mohammed Sinwar took shelter was located just meters from the emergency room where she was working.³⁵³ Rose is not alone. In a recent report by Physicians for Human Rights, an Israeli NGO that accused Israel of genocide and of deliberately targeting hospitals without any valid military justification, the authors claim there is no solid evidence that Hamas used medical facilities for military purposes. Yet they entirely omit mention of the well-documented tunnel beneath a hospital where

³⁴⁷ <https://www.gazahealthcareletters.org/usa-letter-oct-2-2024>

³⁴⁸ https://www.thesun.co.uk/news/31056306/isis-sex-slave-kidnapped-fed-babies-hamas-gaza/?fbclid=IwY2xjawIOHAVleHRuA2FlbQIxMAABHX7MP0I2J-1QrH_tHAJ97Fr963u8qdlh3j4CFwehggXQGrifbiP-FFguZQ_aem_DxZj2a3X5PGdUkOx1ty9jQ

³⁴⁹ <https://www.jpost.com/israel-hamas-war/article-804116>
<https://www.rudaw.net/english/world/28052024>

³⁵⁰ <https://honestreporting.com/revealed-reuters-ap-nyt-photos-of-gaza-hospital-leave-hamas-out-of-the-frame/>

³⁵¹ <https://www.youtube.com/watch?v=gPNflwXVGY>

³⁵² <https://edition.cnn.com/2024/01/04/middleeast/israel-hostage-doron-katz-asher-interview-hamas-gaza-intl/index.html>

³⁵³ https://www.youtube.com/watch?v=TRpC_fheJyQ, <https://www.mako.co.il/pzm-soldiers/Article-797e8e9388f4791027.htm>, <https://www.instagram.com/reel/DKmlj0stG6K/>

Hamas's military leader was hiding — a fact widely reported in mainstream outlets, including *The New York Times* and the BBC.³⁵⁴

We note that the Al Aqsa Martyrs Hospital doctors whose injury pattern study we cite also insisted that their hospital served only civilians. Some might say this reflects on the credibility of their research. We note first of all that this is a definition of the study population (civilians), and that it has no bearing on their apolitical analysis of injury patterns (assuming, that is, that only civilians were included in the study). Second, we note that it is not impossible, though it is unlikely, that one small hospital in Deir Al Balakh did not serve Hamas fighters and that they are careful not to make any claims about any other hospitals—indeed, their phrasing implies that combatants **are** treated at other hospitals. But most critically, those doctors are Gazans and they remain in Gaza. To undermine the Hamas narrative on such a crucial issue would be suicidal. PAMA-associated doctors enjoy the privilege of Western citizenship. Commitment to the cause and social pressure dictate the constraints of their expression, not fear for their lives.

Furthermore, these doctors collectively provided a medical assessment that 67,413 Palestinians had already died of hunger and disease.³⁵⁵ This purports to be a factual statement about the situation as it stood in September 2024, not a prediction about future developments. This assessment is not supported by any reports from the Gaza Ministry of Health during the January-March 2025 ceasefire and is directly contradicted by the Spagat and Shikaki family survey, as detailed in Chapter 1.

A recurring claim based on testimonies from Gazans and American doctors who entered Gaza via PAMA is that armed drones with sniper rifles are responsible for many of the injuries and deaths of children they witnessed. Their testimonies include detailed descriptions of the characteristic sound these drones supposedly make when hovering before opening fire and their tendency to shoot deliberately at children (or, according to other accounts, randomly at civilians).³⁵⁶

However, after comprehensive review, we could not find any model of armed drones with small arms in operational use in Gaza or anywhere else.³⁵⁷ The sole exception is an improvised innovation by Ukrainian forces who equipped observation drones with hand-made light weapons, exemplifying the widespread spirit of improvisation characteristic of the Russo-Ukrainian War. We found no supporting documentation or relevant evidence explaining how to distinguish between injuries allegedly caused by such drones and other gunshot injuries, nor did we find any visual or auditory recordings of the distinctive noise attributed to these devices. While we are cautious about drawing conclusions from an absence of evidence, our professional obligation is to acknowledge that, despite our efforts, no supporting evidence has been found.

Furthermore, there is a fundamental difference between theoretical drones armed with small arms operating at short ranges and drones armed with long-range sniper rifles. These systems require a far more stable platform than most drones can provide. Snipers usually have to calculate distance, wind, elevation and range, and keep their rifles steady with bipods or tripods. This is much harder when trying to shoot from a moving or hovering platform, which likely explains why, to the best of our knowledge, they have not yet been used

³⁵⁴ Physicians for Human Rights, "Destruction of Conditions of Life: A Health Analysis of the Gaza Genocide", p.41. <https://www.phr.org.il/wp-content/uploads/2025/07/Genocide-in-Gaza-PHRI-English.pdf>. For evidence regarding Sinwar's tunnel beneath the European Hospital see for example: <https://www.nytimes.com/2025/06/08/world/middleeast/gaza-hospital-tunnel.html>, <https://www.bbc.com/news/articles/c7v7p9p0rn7o>.

³⁵⁵ <https://worldbeyondwar.org/undercounting-deaths-in-gaza-while-claiming-its-the-worst-war-ever/> With the known violent deaths, the estimated ten thousand people buried under the rubble and certainly dead, a conservative estimate of 62,413 deaths from malnutrition and disease, and a conservative estimate of 5,000 deaths in patients with chronic diseases, we estimate that the current death toll is at least 118,908, approximately agreeing with the projected estimates cited above."

³⁵⁶ <https://www.snopes.com/news/2024/04/30/idf-sniper-drones-crying/>

³⁵⁷ See for instance: https://www.forbes.com/sites/davidhambling/2023/08/07/flying-sniper-drone-takes-aim/?utm_source=chatgpt.com,

operationally. The frequently cited Elbit prototype—publicly available and showcased at the London exhibition—did have an animation promotional video showing the firing of an assault rifle from the air, but at the time of the report, no video of real trials had been published despite the system’s having being developed over the last ten years. To reiterate, there is no credible evidence that this system has entered documented operational use in the IDF or any other military.³⁵⁸

In summary, the problematic testimonies provided by PAMA-associated doctors underscore the difficulty of regarding ideological adherents of the Palestinian national struggle as professional and impartial witnesses—even when they are respected medical practitioners. The extensive and uncritical media exposure given to these testimonies primarily underscores the lack of professionalism among information intermediaries and the ease with which unverified claims can circulate without critical scrutiny—seriously undermining the credibility of both public and academic discourse.

Chapter Four: The Question of Indiscriminate Bombing

Summary

This chapter addresses criticisms concerning alleged indiscriminate attacks and violations of the principle of proportionality during the Israel-Hamas War. It begins with a presentation of the legal framework governing the laws of armed conflict, outlining the core principles of International Humanitarian Law: distinction, proportionality, military necessity, and humanity. These principles form the normative basis for assessing the conduct of Israel’s military operations.

We then examine the ratio between munitions expended and reported fatalities. Contrary to claims that this reflects indifference or a deliberate attempt to maximize civilian harm, our analysis suggests it points to a consistent pattern of precision targeting and operational restraint—fewer than one death per munition in the first two and deadliest months of the war. We reason that an army intending to cause mass civilian casualties would likely have used fewer munitions on denser population centers, especially in the face of ordnance shortages, the threat of embargo, and the need to preserve munitions for potential escalations on other fronts.

In addition, we show that despite the deliberate obstruction by Hamas and the reservations of some humanitarian organizations, Israel’s evacuation orders appear to have significantly reduced civilian risk factors to the population in the safer zones. According to BBC Verify data, between May 2024 and January 2025, only 2-4% of reported fatalities occurred within the designated humanitarian zone—where more than half of Gaza’s population had relocated. While these are partial figures, they indicate that the humanitarian zone to which the population had been directed was substantially safer than the areas subject to the evacuation orders. This supports the conclusion that the IDF made considerable efforts to minimize civilian harm through prior warnings, even at the cost of forfeiting tactical advantages such as the element of surprise.

³⁵⁸ <https://www.elbitsystems.com/news/defining-future-elbit-systems-present-range-solutions-dsei-2023> , https://www.stocktitan.net/news/DUKR/duke-robotics-provides-update-on-progress-with-elbit-systems-ag8t9jvol0m2.html?utm_source=chatgpt.com. Duke Robotics, the company responsible for the TIKAD Systems used in Elbit's "Birds of Prey", reported that its first revenue from the system will come in 2025, though most of the revenue would be non-military from infrastructure drones. In 2023 the company reported income of 300,000 USD and in 2024 108,000 USD – showing both a small volume of sales and the fact that the first year of war in Gaza did not contribute at all to the revenue of the company. https://dukeroboticsys.com/wp-content/uploads/2025/03/DUKR_FY24-Earnings-PR-20-March-2025.pdf, <https://dukeroboticsys.com/wp-content/uploads/2025/07/DUKR-first-Revenues-from-Royalties-Elbit-Collaboration-Final.pdf>

Our findings also show that the IDF employed a range of precautionary measures in its conduct of hostilities, including providing ample advance warnings and delaying or even aborting strikes. These measures show a remarkable overall adherence to the legal thresholds of incidental harm. While we do not attempt to diminish the gravity of the isolated incidents mentioned in this study, we are of the opinion that these actions do not reflect disregard for civilian life on a systemic level—indeed, they indicate a concerted effort to mitigate harm amid complex and dynamic battlefield conditions.

The chapter further clarifies that the use of unguided munitions—particularly during a global shortage of precision-guided weapons—does not in itself violate international law, provided such weapons are properly used by trained pilots who take all feasible precautions in their deployment.

Finally, we do not claim that all the Israeli strikes were lawful or the product of sound tactical reasoning. Tragic incidents, such as the particularly deadly strike in Beit Lahiya discussed below, underscore the real consequences of flawed intelligence, human error or operational miscalculation. This chapter does not seek to provide a blanket exoneration to the IDF but rather serves as a methodological clarification. Bombing operations must be assessed not solely by their outcomes, however severe, but by the intelligence available at the time regarding the military value of the target, the potential damage caused by the planned operation, and the precautions taken to reduce said harm. This is the standard required by International Humanitarian Law, and it is by this standard that claims of wrongdoing must be evaluated.

A. The Conceptual Framework of Distinction and Proportionality

Unlike previous chapters, which primarily focused on factual analysis, this chapter necessarily begins with a discussion of the relevant legal framework for two key reasons. First, some of Israel’s critics—such as Lee Mordechai—fail to clearly articulate the legal obligations of both Israel and Hamas under IHL, instead conflating the principles of distinction and proportionality with personal impressions and subjective judgments. This reflects a broader pattern of conceptual confusion common in similar critiques. Second, assessing proportionality and distinction in specific attacks is inherently difficult, particularly amid the fog of war. Such analysis must be conducted with precise legal principles firmly in mind, as they provide the only valid framework through which to evaluate the lawfulness of military conduct. For these reasons, we begin with a concise explanation of the applicable legal standards.

The Principle of Distinction

The principle of distinction obligates all parties to a conflict to differentiate between legitimate military objectives and civilian objects. Article 52 of the First Additional Protocol to the Geneva Convention³⁵⁹ defines a military objective based on four main criteria:

*Attacks shall be limited strictly to military objectives. In so far as objects are concerned, military objectives are limited to those objects which by their **nature, location, purpose or use** make an effective contribution to military action and whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage.*

- **Nature** – An object that is inherently military; e.g., a missile launcher.

³⁵⁹ <https://ihl-databases.icrc.org/en/ihl-treaties/api-1977/article-52>

- **Location** – An object or feature situated in a strategic location, such as on a hill or in a building that overlooks or allows fire control over a planned military maneuver corridor. Even if not *currently* in direct military use, this object or feature may still be considered a legitimate target due to its potential use.

- **Purpose** – An object used to achieve a military goal, such as a power station that supplies military facilities (e.g., tunnel ventilation, weapons manufacturing).³⁶⁰

- **Use** – An object actually used for combat, such as a house used by an anti-tank missile unit or a mined building. Even if the building was previously used for residential purposes, actual and current military use renders it a legitimate military target.

For further elaboration on the status of these principles as customary law, see also rule 8 of the ICRC's "Customary International Humanitarian Law".³⁶¹

While Article 57 of the First Additional Protocol imposes on the attacking party the primary obligation to distinguish military objectives from civilian objects, the defending party is also obligated to take precautions to protect civilians from attack. In other words, the defending party is likewise obligated to distinguish its military forces from the civilian population by positioning them away from civilian areas and, when required, evacuating its own civilians from military sites and anticipated zones of combat. As specified in Article 58³⁶²

The Parties to the conflict shall, to the maximum extent feasible:

- (a) without prejudice to Article 49 of the Fourth Convention, endeavour to remove the civilian population, individual civilians and civilian objects under their control from the vicinity of military objectives;*
- (b) avoid locating military objectives within or near densely populated areas;*
- (c) take the other necessary precautions to protect the civilian population, individual civilians and civilian objects under their control against the dangers resulting from military operations.*

For further clarification, see also rules 7 and 23 of the Red Cross guidelines.³⁶³

The Principle of Military Necessity

This principle states that military action must be necessary to achieve a clear military advantage directly resulting from the attack. An example appears in Article 52 of the aforementioned First Additional Protocol:

Attacks shall be limited strictly to military objectives. Insofar as objects are concerned, military objectives are limited to those objects which by their nature, location, purpose, or use make an effective contribution to military action and whose total or partial destruction, capture, or neutralization, in the circumstances ruling at the time, offers a definite military advantage.

The Principle of Proportionality

In the context of International Humanitarian Law, few terms have such ambiguous meaning as that of Proportionality. For the purposes of this study, we are referring to the application of the Principle of

³⁶⁰ If the object provides utility both to civilian and combatants, it shall be considered a “dual purpose” or “dual use” target, and will only be considered a legitimate military target if the dominant use is the military use, and the principle of proportionality requires weighing the damage caused to the civilian population by the destruction of the target.

³⁶¹ <https://ihl-databases.icrc.org/en/customary-ihl/v1/rule8>

³⁶² <https://ihl-databases.icrc.org/en/ihl-treaties/api-1977/article-58?activeTab=>

³⁶³ <https://ihl-databases.icrc.org/en/customary-ihl/v1/rule7>
<https://ihl-databases.icrc.org/en/customary-ihl/v1/rule23>

Proportionality in the conduct of hostilities *during* an existing armed conflict, a status termed *ius in bello*, which differs from the use of this principle *before* hostilities (*ius ad bellum*)³⁶⁴ or in other legal contexts.³⁶⁵ We consider a state of armed conflict to exist between Israel and Hamas and other Palestinian militant groups.³⁶⁶ Therefore, the proper application of the Principle of Proportionality is that of *ius in bello*, which requires weighing the expected impact on civilians against the anticipated military advantage of the attack. The test is not whether "the attack is necessary in relation to the immediate threat," but whether the anticipated harm to civilians disproportionately exceeds the direct and concrete military advantage. For further details, see rule 14 of the Red Cross guidelines.³⁶⁷

It is crucial to emphasize that proportionality is not determined by a predetermined numerical threshold or a specific formula relating combatant casualties to civilian casualties. No universally accepted ratio exists; nor can one ever be determined due to the ever-changing nature of warfare and the unique aspects of each conflict. Instead, like other legal tests, proportionality is assessed based on a somewhat subjective professional judgment—whether, given the intelligence available at the time of planning, a reasonable military commander would have considered the attack to be proportionate in terms of the damage it causes compared to the military advantage to be gained from the strike. The assessment is pragmatic and context-dependent and must consider the strategic goals of the overall operation, not just isolated incidents, as well as whether the objective can be achieved with less harm to civilians.³⁶⁸

In intense combat situations—such as within urban and densely populated environments—inevitable collateral damage can be extensive but still remain lawful, provided it does not excessively outweigh the military advantage of the attack.

It is important to note that proportionality is assessed prior to executing the attack, based on information available at the time of its planning. The evaluation addresses expected or predictable outcomes, not actual results,³⁶⁹ subject to the provisions of Article 57 of the First Additional Protocol:³⁷⁰

**2. With respect to attacks, the following precautions shall be taken:*

(a) those who plan or decide upon an attack shall:

(i) do everything feasible to verify that the objectives to be attacked are neither civilians nor civilian objects and are not subject to special protection but are military objectives within the meaning of paragraph 2 of Article 52 and that it is not prohibited by the provisions of this Protocol to attack them;

³⁶⁴ In the context of *ius ad bellum*, the principle of Proportionality is outlined in the Caroline test. Referring to a 19th century affair between the United States and Canada (then a part of the British empire), this test dictates that a state can use force in self-defense only when the necessity is "instant, overwhelming, and leaving no choice of means, and no moment for deliberation", and "the response must be proportionate to the threat".

³⁶⁵ In constitutional law contexts, some jurisdictions, such as the Israeli Supreme Court, have interpreted this test as requiring an action taken by a state to be directly proportional to the issue it aims to address, and to cause the least amount of harm to be caused by an action derogating on a protected right.

³⁶⁶ The nature of this armed conflict, international or non-international, has no bearing on the analysis of this principle. It is also of little consequence for the limited purposes of this analysis if the start date of this armed conflict was October 7, 2023, with Hamas's attack on Israel, or if this is a continuation of ongoing hostilities.

³⁶⁷ <https://ihl-databases.icrc.org/en/customary-ihl/v1/rule14>

³⁶⁸ See a summary in Emanuela-Chiara Gillard, **Proportionality in the Conduct of Hostilities: The Incidental Harm Side of the Assessment**, Chatham House (2018), Section 2.4, Page 9 (<https://www.chathamhouse.org/sites/default/files/publications/research/2018-12-10-proportionality-conduct-hostilities-incident-harm-gillard-final.pdf>)

³⁶⁹ - כללי הצלב האדום - <https://ihl-databases.icrc.org/en/customary-ihl/v1/rule19>

³⁷⁰ <https://ihl-databases.icrc.org/en/ihl-treaties/api-1977/article-57?activeTab> =

(ii) take all feasible precautions in the choice of means and methods of attack with **a view to avoiding, and in any event to minimizing, incidental loss of civilian life, injury to civilians, and damage to civilian objects;**

(iii) refrain from deciding to launch any attack **which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated;**

(b) an attack shall be canceled or suspended if it becomes apparent that the objective is not a military one or is subject to special protection or that the attack **may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated;**

(c) effective advance warning shall be given of attacks which may affect the civilian population, **unless circumstances do not permit.**

This point is crucial for legal analysis of combat situations. Assessing the proportionality of an attack solely based on its outcome—without access to the anticipated or possible expected civilian casualty estimates or the underlying intelligence dictating the military value of the target—is known as “outcome-based analysis” and is not legally acceptable. To demonstrate an intentional or indifferent breach of this principle, the assessment must be grounded in the prior intent, not the effect. **To re-emphasize: proportionality cannot be assessed solely based on the results of military actions, tragic as these results may be.** That said, commanders are obligated to analyze the results of attacks retrospectively in order to minimize collateral damage in future actions and to prevent recurrence of operational errors or miscalculations and refrain from using tactics that result in greater casualties than expected or assessed.

It is also important to note that **the presence of civilians near military targets does not automatically preclude an attack.** The commander must evaluate the expected damage and balance it against the military necessity, but is not required to cancel an attack **solely** because civilians are present in the vicinity of the military target. Moreover, the defending party bears a positive obligation to avoid deliberately positioning its forces near civilians or using the presence of civilians to shield military objectives by placing them in harm’s way, as explicitly stated in Article 51(7):³⁷¹

The presence or movements of the civilian population or individual civilians shall not be used to render certain points or areas immune from military operations, in particular in attempts to shield military objectives from attacks or to shield, favour or impede military operations. The Parties to the conflict shall not direct the movement of the civilian population or individual civilians in order to attempt to shield military objectives from attacks or to shield military operations.

Understanding this clause is critical for analyzing IDF strikes in the Gaza War—especially since, as seen in Chapter 2, Hamas and other Palestinian groups extensively relied on hiding fighters and military assets within civilian populations and using civilians as human shields.

The Principle of Humanity

This principle requires the use of means of warfare that limit unnecessary harm to civilians, but it does not mandate the use of weapons that are less effective militarily. In other words, there is no obligation to prefer less destructive weapons if such use would reduce the military advantage. The means are to be adjusted to

³⁷¹ [https://ihl-databases.icrc.org/en/ihl-treaties/api-1977/article-51?activeTab =](https://ihl-databases.icrc.org/en/ihl-treaties/api-1977/article-51?activeTab=)

the target, not the other way around. As per Article 57 of the First Protocol, the obligation is to take **feasible** precautions to prevent harm, not eliminate all risk.³⁷²

Military forces can, and routinely do, inflict immense harm on civilians in combat zones, which falls **within** the boundaries of the law. Suppose, for example, that a three-level building in a residential area contains an enemy command-and-control center in the basement, a firing position on the first floor and an observation post on the roof of the second floor. The force commander believes it is imperative to destroy this building in order to obtain local superiority over the enemy forces by disrupting command and control infrastructure. He also determines, however, that a ground approach will likely result in casualties due to the observation post and possible presence of anti-tank weaponry in the firing position.

The commander therefore requests an analysis of possible aerial munitions. He is informed that the air force can allocate either a single 250kg or a single 500kg bomb to this mission. Structural analysis of the target suggests that total destruction of the building can be achieved using the explosive yield of a 300kg bomb, to which the commander has no access. Further analysis suggests a 250kg bomb may result in partial mission success (i.e., it will destroy the top two floors but not the basement, which houses the command and control center), with a likely collateral damage toll of four civilians in the vicinity of the building. The 500kg bomb is assessed to be likely to cause total building destruction but result in significant collateral damage to the buildings surrounding the target, which is expected to cause the deaths of nine civilians.

Our hypothetical commander is therefore presented with three unenviable choices: order a ground assault that will endanger his forces but likely cause the least amount of collateral damage to the target; order an aerial bombing with a 250kg bomb that risks objective failure and requires a follow-up ground assault to complete the mission; or order the deployment of a 500kg bomb that will cause the most collateral damage but will have the highest probability of mission success.

In this scenario, the commander is not obligated to launch a ground assault or use the 250kg bomb and risk the objective simply because those options are less likely to cause collateral damage. Rather, he is obligated to consider the potential excessive damage caused by the larger munition prior to authorizing the strike. If the collateral damage is considered not to be excessive, the strike may very well be legal even if it employs an explosive yield nearly twice the minimal required amount and results in more than double the collateral damage from a lesser-yield munition. As noted, what constitutes a proportional strike is subject to considerations of existing intelligence and knowledge. It is a truly unfortunate reality of warfare that some strikes will happen exactly as described above and that people will die as a result of the grim mathematics of warfare.

That is not to say this principle is easily overridden. The principle of humanity prohibits the use of weapons that cause unnecessary suffering and requires, among other lawful options, the selection of targets that achieve the military objective with the least possible harm to civilians. If our hypothetical commander had been presented with an option to deploy a 300kg munition, his selection of the 500kg bomb would be a questionable decision given the circumstances described. In addition, many nations have signed on to treaties and conventions proscribing specific types of weapons in adherence to this principle, including limitation on the use of chemical weapons and certain conventional weapons that cause unnecessary suffering.

Having outlined the principles of distinction, military necessity, proportionality, and humanity, we will now examine claims that Israel grossly violated these principles during the Gaza War, also comparing its conduct to that of other Western armies.

³⁷² - <https://ihl-databases.icrc.org/en/customary-ihl/v1/rule17>

B. Excessive Use of Munitions

To demonstrate that Israel's conduct during the Gaza War was unusually severe, Lee Mordechai and others compare the approximately 29,000 air munitions used by Israel up to December 2023 with the much lower number of 3,678 air munitions used, allegedly in a "conservative" manner, by the United States during the Iraq War from 2004-2010.³⁷³

It is difficult to understand the purpose of this comparison, not only from a legal position (since all use of munitions in war should be examined based on specific circumstances on a strike-by-strike basis), but also methodologically. Mordechai chooses to compare the Israeli campaign to the later stages of the Iraq War, which began nine months after the US invasion in March 2003 and followed the establishment of a provisional Iraqi government, backed by the exiled Iraqi opposition, six months later. By 2005, an Iraqi government supported by the Shiite majority and Kurds was already in place—conditions that bear little resemblance to the confined, densely populated urban warfare of Gaza.

A more relevant comparison would be with the period of the invasion itself. During the 2002 Afghanistan invasion and the initial stages of the Iraq War, the US used approximately 29,199 air munitions, similar to Israel's figures in the examined period. The types of munitions also differed: the US used cluster bombs that inflict massive environmental damage³⁷⁴, while Israel is not reported to have employed this weaponry in Gaza.

As previously discussed, the sheer volume of munitions used does not, by itself, constitute sufficient evidence of wrongdoing. First, it is impossible to determine the ratio of munitions to casualties, the composition of the munitions used, or the military advantage anticipated by the relevant commanders in each conflict based solely on open sources. Despite the IDF's daily release of briefs since the beginning of the war³⁷⁵ and even of some specifics on targets and munitions used³⁷⁶, this information is insufficient to establish evidence of violation of international law. That is because it lacks critical details regarding the

³⁷³ לי מרדכי, "עדות על מלחמת חרבות ברזל", (מעודכן ל-9.3.2025), ע"ע 19-20.

³⁷⁴ <https://www.hrw.org/reports/2003/usa1203/4.htm#:~:text=Significant%20civilian%20casualties%20occurred%20in,%20were%20precision%20guided%20munitions.>

³⁷⁵ <https://www.idf.il/%D7%90%D7%AA%D7%A8%D7%99-%D7%99%D7%97%D7%99%D7%93%D7%95%D7%AA%D7%99%D7%95%D7%9E%D7%9F-%D7%94%D7%9E%D7%9C%D7%97%D7%9E%D7%94%D7%99%D7%95%D7%9E%D7%9F-%D7%94%D7%9E%D7%9C%D7%97%D7%9E%D7%94-%D7%93%D7%A7%D7%94-%D7%90%D7%97%D7%A8-%D7%93%D7%A7%D7%94/>

³⁷⁶ See, for example, the war diary entry for Monday, October 9, 2023, prior to the ground incursion into the fighting in the Gaza Strip and shortly after the battles of the initial invasion on October 7, 2023. On that day, according to the IDF spokesperson, 2,000 munitions—approximately 7% of all munitions reportedly used during the relevant period—were dropped on 800 targets in the Gaza Strip.

- <https://www.idf.il/%D7%90%D7%AA%D7%A8%D7%99-%D7%99%D7%97%D7%99%D7%93%D7%95%D7%AA%D7%99%D7%95%D7%9E%D7%9F-%D7%94%D7%9E%D7%9C%D7%97%D7%9E%D7%94%D7%99%D7%95%D7%9E%D7%9F-%D7%94%D7%9E%D7%9C%D7%97%D7%9E%D7%94-%D7%AA%D7%9E%D7%95%D7%A0%D7%AA-%D7%94%D7%9E%D7%9C%D7%97%D7%9E%D7%94-%D7%AA%D7%9E%D7%95%D7%A0%D7%AA-%D7%9E%D7%A6%D7%91-%D7%9E%D7%AA%D7%92%D7%9C%D7%92%D7%9C%D7%AA-%D7%97%D7%A8%D7%91%D7%95%D7%AA-%D7%91%D7%A8%D7%96%D7%9C-%D7%9E%D7%9C%D7%97%D7%9E%D7%94-%D7%99%D7%A9%D7%A8%D7%90%D7%9C-%D7%A2%D7%A6%D7%94-%D7%9E%D7%99%D7%93%D7%A2-%D7%A2%D7%A3%D7%A9%D7%A0%D7%99%D7%9D-%D7%A8%D7%9C%D7%95%D7%95%D7%A0%D7%A8%D7%98%D7%99-%D7%99%D7%95%D7%9E%D7%9F-%D7%9E%D7%9C%D7%97%D7%9E%D7%94-%D7%A9%D7%A0%D7%99-9-10/>

nature and location of the targets, the precautions taken prior to the attacks, and the anticipated collateral damage presented to the commander authorizing the strikes.

While **intent** cannot be inferred from the results of an attack alone, we may, for the sake of discussion, possibly discern patterns of which precautions were taken in the deployment of munitions. Let us examine the broader context—specifically, the ratio of munitions used to resulting casualties. By the end of December 2023, reports indicated approximately 22,000 Palestinian deaths, both combatants and civilians, many of whom were killed in ground fighting after the IDF ground troops entered Gaza at the end of October 2023.³⁷⁷ As a reminder, Lee Mordechai’s assessment listed 29,000 **aerial munitions** alone, disregarding small weapons fire, artillery pieces and tank shells.

Even if we accept all these figures at face value—the number of munitions, the number of casualties and their pattern of emergence—the data suggest fewer than one civilian casualty per aerial munition used, despite the fact that a single aerial munition could (and indeed does) cause numerous deaths given the urban nature of the conflict.

In our opinion, this indicates a pattern of widespread precision strikes aimed at neutralizing specific targets while minimizing collateral damage. At the very least, it indicates that Israel was directing its strikes mostly at areas with little civilian presence, whether in evacuated areas or in buildings that had received specific evacuation orders. Had Israel intended to target civilians or acted with disregard for their presence, it stands to reason that the IDF could have used fewer munitions to inflict greater casualties, thereby conserving its resources. Taken together, this evidence strongly suggests that Israel exercised substantial precautions in its bombing campaign.

We reiterate: the responsibility to avoid positioning military objectives within densely populated civilian areas or near protected facilities—and to prevent the use of civilians as human shields—rests with the defending party. The fact that Palestinian armed groups refused to comply with legal obligations and deliberately dispersed their military infrastructure within urban areas and civil infrastructure created many military targets within ostensibly civilian locations. In practice, the IDF often avoided bombing legitimate military objectives (such as tunnel shafts, sniper positions, and launch sites) until civilians had been evacuated, even at the expense of significant military advantage, as documented by the BBC in the Al-Zahra neighborhood on October 19, 2023. All this suggests compliance with a strict interpretation of international law.³⁷⁸ We therefore believe the claim that the high volume of munitions reflects an intent to commit mass killing is unfounded.

C. Allegations Concerning the Non-Use of Precise Munitions

The principle of distinction is a cornerstone of IHL, prohibiting intentional attacks on civilians, the wounded, prisoners of war, and other protected groups. To assess whether specific attacks adhered to this principle, one must verify if the target was a legitimate military objective. Therefore, armies compliant with the law are obligated not to use armaments that **cannot** be aimed at a military target. However, the principle of distinction does not prohibit the performance of strikes with unguided munitions. For further details, see rule 12 of the ICRC,³⁷⁹ as well as clause 51 of the first protocol of the Geneva Convention:

4. Indiscriminate attacks are prohibited. Indiscriminate attacks are:

(a) those which are not directed at a specific military objective;

³⁷⁷ <https://www.aljazeera.com/news/2024/1/2/israeli-bombardment-ongoing-as-death-toll-surpasses-22000>

³⁷⁸ <https://web.archive.org/web/20240312143253/https://www.bbc.com/news/world-middle-east-67327079>

³⁷⁹ <https://ihl-databases.icrc.org/en/customary-ihl/v1/rule12>

*(b) those which employ a method or means of combat which **cannot be directed** at a specific military objective; or*

*(c) those which employ a method or means of combat **the effects of which cannot be limited** as required by this Protocol, and consequently, in each such case, are of a nature to strike military objectives and civilians or civilian objects without distinction.*

While the prohibition against the use of indiscriminate weapons is undisputed (see Rule 71)³⁸⁰, **unguided** munitions are not considered to be inherently **indiscriminate**. A legal opinion by the International Court of Justice on the legality of the use of nuclear weapons concluded that their indiscriminate nature cannot be definitively established solely by their widely destructive power.³⁸¹ If such logic applies to nuclear weapons, we believe it certainly applies to aerial munitions with limited destructive capacity.

It is therefore worth examining whether critics' claims about indiscriminate attacks are based on a different legal reasoning. We will now turn to the claims that the use of unguided munitions is inherently indiscriminate and that their systemic and widespread use is indicative of an indiscriminating bombing campaign. This position could be argued under the rule in Additional Protocol I, Article 51(5):

5. Among others, the following types of attacks are to be considered as indiscriminate:

(a) an attack by bombardment by any methods or means which treats as a single military objective a number of clearly separated and distinct military objectives located in a city, town, village or other area containing a similar concentration of civilians or civilian objects; and

(b) an attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated.

We reject this interpretation based on the facts presented above regarding the ample precautions taken by the IDF in their conduct of hostilities. It bears repeating that the use of unguided munitions does not in and of itself amount to an indiscriminate attack. These so-called 'dumb bombs' are delivered by highly trained pilots and can be delivered accurately to within approximately 50 meters. These bombs are not dropped at random; they're aimed and only dropped on command, with a specific and concrete military target in mind. An attack with these types of bombs remains lawful as long as a legitimate military target lies within the blast radius and all feasible precautions are taken to minimize harm to civilians. This point was reinforced by former US Air Force Lt. Gen. David Deptula in a December 2023 PBS interview.³⁸²

Also, as precision-guided weapons became effective and widespread only from the 1970s onward, claims that 'dumb' weapons are inherently unlawful lack basis. Prior to the advent of precision-guided munitions, all weapons, including unguided ones, were used in accordance with the legal standards of their time—standards that, it should be noted, **have not changed**.

Given the operational environment faced by the Israeli military—engaging widespread targets dispersed within densely populated Gaza—the IDF adopted unprecedented evacuation and displacement measures to

³⁸⁰ <https://ihl-databases.icrc.org/en/customary-ihl/v1/rule71>

³⁸¹ - <https://www.icj-cij.org/case/95>

³⁸² <https://www.pbs.org/newshour/show/military-experts-discuss-israels-use-of-unguided-bombs-and-harm-to-civilians-in-gaza>.

minimize harm to civilians. These efforts included dividing Gaza into precise zones, issuing millions of warnings, and engaging in extensive communication with residents prior to attacks.³⁸³ As of early January 2024 (just three months into the fighting, including a first round of ceasefire for hostage/prisoner exchanges), the IDF reported having issued millions of calls and messages and more than seven million warning leaflets.³⁸⁴

While it is true that the effectiveness of these evacuations must be verified, that some of them were confusing amid the fog of war, and that warnings alone do not guarantee civilian safety, the extensive measures undertaken by Israel to evacuate civilians from targeted areas weigh heavily in the assessment of proportionality. Furthermore, contrary to some assertions, Israel is not unusual in using 'dumb' weapons.³⁸⁵ Up to December 2023, approximately 40-45% of the air munitions used by Israel during intense fighting were unguided. For comparison, during the US invasion of Afghanistan, unguided munitions constituted 40% of total weapons used, and in Iraq, about 32%. During the Kosovo campaign, the rate was 70%.³⁸⁶

Moreover, during the siege of Mosul (2016-2017), US and British air forces extensively used heavy unguided munitions (500 pounds and above, including 2,000-pound bombs) alongside massive rocket artillery strikes on the Old City of Mosul—an area of only two square kilometers that contained around 200,000 civilians trapped there by ISIS. It is worth noting that the Iraqi Armed Forces made extensive use of Grad multiple rocket launchers, a Soviet-era weapon platform capable of firing several **unguided** 122mm rockets at a time. Grad rockets are inherently inaccurate, their dispersion increases with range, and they are less precise than artillery shells. They are meant to deliver area-wide destruction. A salvo of 40 Grad rockets (standard launcher size) can cover about 600x600 meters with a miss distance, depending on range, averaging around 300 meters at 20 km. These rockets are deliberately fired in salvos to hit dispersed targets with much, much lower accuracy than Israel's 'dumb' bombs.³⁸⁷

Moreover, the implied claim that Israel was obligated to limit itself to precise munitions is unrealistic. The demand that armies use exclusively guided weapons does not align with the current availability of munitions on the international market, especially given the global shortages caused by the war in Ukraine. Contrary to

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<https://www.idf.il/%D7%90%D7%AA%D7%A8%D7%99-%D7%99%D7%97%D7%99%D7%93%D7%95%D7%AA/%D7%99%D7%95%D7%9E%D7%9F-%D7%94%D7%9E%D7%9C%D7%97%D7%9E%D7%94%D7%9B%D7%9C-%D7%94%D7%9B%D7%AA%D7%91%D7%95%D7%AA/%D7%94%D7%A4%D7%A6%D7%95%D7%AA/%D7%94%D7%95%D7%93%D7%A2%D7%AA-%D7%93%D7%95%D7%91%D7%A8-%D7%A6%D7%94%D7%9C-%D7%91%D7%A2%D7%A8%D7%91%D7%99%D7%AA-%D7%9C%D7%AA%D7%95%D7%A9%D7%91%D7%99-%D7%A8%D7%A6%D7%95%D7%A2%D7%AA-%D7%A2%D7%96%D7%94-%D7%9C%D7%94%D7%AA%D7%A4%D7%A0%D7%95%D7%AA-%D7%93%D7%A8%D7%95%D7%9E%D7%94-%D7%9E%D7%A4%D7%94-%D7%90%D7%99%D7%A0%D7%98%D7%A8%D7%90%D7%A7%D7%98%D7%99%D7%91%D7%99%D7%AA-%D7%97%D7%9E%D7%90%D7%A1-%D7%9E%D7%9C%D7%97%D7%9E%D7%94/>

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<https://www.idf.il/%D7%90%D7%AA%D7%A8%D7%99-%D7%99%D7%97%D7%99%D7%93%D7%95%D7%AA/%D7%99%D7%95%D7%9E%D7%9F-%D7%94%D7%9E%D7%9C%D7%97%D7%9E%D7%94%D7%93%D7%95%D7%97-%D7%94%D7%A9%D7%A7%D7%99%D7%A4%D7%95%D7%AA/%D7%A0%D7%AA%D7%95%D7%A0%D7%99-%D7%A4%D7%99%D7%A0%D7%95%D7%99-%D7%90%D7%95%D7%9B%D7%9C%D7%95%D7%A1%D7%99%D7%99%D7%94-%D7%91%D7%A8%D7%A6%D7%95%D7%A2%D7%AA-%D7%A2%D7%96%D7%94/>

³⁸⁵ לי מרדכי, "עדות על מלחמת חרבות ברזל", (מעודכן ל-9.3.2025), עמ' 19.

³⁸⁶ <https://www.gao.gov/assets/gao-04-547.pdf>

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<https://www.amnesty.org/en/documents/mde14/6610/2017/en/>,
<https://www.kyivpost.com/post/42244/>;
https://www.gichd.org/fileadmin/uploads/gichd/Publications/Explosive_weapon_effects_web.pdf,
<http://characterisationexplosiveweapons.org/wp-content/uploads/2016/10/Annex-A.pdf>

the assertions of some critics, this is not solely a matter of cost³⁸⁸ but also of technical and logistical availability—considerations that commanders are not only allowed to but are obligated to take into account in the planning of military campaigns.

Guided munitions that would cover the entirety of the quantities expended by Israel during the Gaza War were not available on the international market at any price. It is not a matter of being unable to pay for them; it is a matter of their simply *not being available to buy*. This is all the more true for the additional stockpiles reserved for potential regional conflicts with Lebanon and Iran—scenarios that ultimately materialized and that exceeded Israel's domestic production capacity.³⁸⁹

A military commander can legitimately decide not to use guided munitions, if the required military objective can be achieved with unguided weapons, so as to preserve precise strike capabilities for future targets within the framework of a "military munitions economy." This concern becomes even more acute in the presence of a credible threat of a new front or a broader regional conflagration, as indeed occurred with Lebanon and Iran. Had Israel depleted its stock of precision munitions in Gaza, it would have been left without these options in those subsequent conflicts.

This is not a point to be taken lightly. Beyond the unimaginable human suffering and damage caused by warfare, it is also a very costly affair. The cost of ongoing hostilities is a very real and legitimate issue for any army. Though guided weapons accounted for only about 8% of total munitions during the 1991 Gulf War, they represented 84% of the total cost. The ratio has changed over time, but guided weapons are becoming increasingly expensive. Not even the US military can afford to use exclusively guided weapons—especially when considering issues like GPS jamming, the need for laser targeting, or adverse weather that can limit precision (with laser or optics-guided munitions).

In addition, comparing Israel's capabilities with those of the US, the world's largest economy and defense industry, is irrelevant. Even if there had been a significant gap in the use of guided weapons, fundamental differences in production capacity, troop size, and stock levels must be considered.

Finally, so-called 'dumb' bombs, which cannot be jammed, still retain certain operational advantages and therefore remain viable weapons of war for any nation.

D. Intelligence accuracy and collateral damage

According to the principle of proportionality, as articulated for example in Article 51(5) of the First Additional Protocol to the Geneva Conventions, any attack that causes collateral damage that is **excessive in relation to the concrete and direct military advantage anticipated** is prohibited.

Lee Mordechai's work compares the published ratio of civilians to fighters in early Gaza War attacks (1:15 to 1:300) with the US ratio considered proportional in the assassination attempt of Saddam Hussein during the 2003 invasion of Iraq (1:29), based on **official** Pentagon data. He also claims that Israeli intelligence inaccuracies led to misidentification of targets in over 10% of cases, resulting in civilian harm without achieving military objectives. This comparison reveals a lack of understanding of both the meaning of collateral damage and the analysis of Israeli versus American attack outcomes.³⁹⁰

Targeting military objectives based on imperfect intelligence is not unique to Israel. In all wars, especially in intense conflicts with a directly threatened home front such as the Israeli case, some uncertainty is inevitable and does not inherently mean a violation of established law has occurred. The "fog of war" is a consideration in the application of IHL, meaning that so long as the commander has sufficient preliminary

³⁸⁸ לי מרדכי, "עדות על מלחמת חרבות ברזל", (מעודכן ל-9.3.2025), עמ' 19.

³⁸⁹ <https://www.defensenews.com/pentagon/2024/04/30/soaring-us-munitions-demand-strains-support-for-israel-ukraine-taiwan/>

³⁹⁰ לי מרדכי, "עדות על מלחמת חרבות ברזל", (מעודכן ל-9.3.2025), ע"ע 10,31.

intelligence to reasonably believe that the target is militarily legitimate, that there is concrete and direct benefit to be achieved by its destruction, and that the attack offers a military advantage not disproportionate to the anticipated collateral damage, the attack is considered lawful.

Since there can never be full and perfect knowledge of any of these elements before an attack, some assumptions have to be made to allow military chains of command to function within these constraints. The primary assumption we wish to address in this chapter is that relating to “anticipated collateral damage”, which, in the Hebrew text, was translated into “permissible incidental harm” by Lee Mordechai.

This concept, in its usage in military practice, has various terms of art, but at its core, it represents a guideline or rule by which proportionality considerations are assessed by senior command and propagated to the fire-control elements of the armed forces. When dictating rules of engagement, senior command may declare certain strikes to be permissible within certain “ranges” of “permissible collateral damage”, indicating the overall value assigned to a target and what would be considered to exceed it.

Some militaries include exceptions to these rules in the form of procedures for escalation of targets in unique cases. But the over-arching concept of these “incidental harm caps” is that they are not in fact a “cap” or an estimate of expected incidental damage from each strike, but rather a definition by senior military command of **the maximum threshold that would still be considered reasonable in relation to the anticipated military advantage of the strike**. This threshold varies from arena to arena and is subject to the directives of the IDF Chief of Staff Office, and it sometimes changes within the same arena depending on available intelligence and directives from senior echelons.

In other words, even if the IDF **allows** for up to 10 non-combatant casualties to occur during a strike in its proportionality considerations, this does not mean the IDF **expects or demands** that this number be met. Even if a planned strike falls within the permissible threshold for incidental damage, it is not automatically approved for execution by IDF command. Every planned attack, whether against a senior operative or a subordinate, is subject to a chain of approvals, and there is no ‘fixed rate’ through which an attack can automatically be carried out. Sometimes, for various reasons, commanders decide not to proceed with an attack even if the expected damage is below the maximum threshold. From the early stages of the conflict, the IDF demonstrated that it frequently refrains from carrying out strikes—even when enemy combatants are clearly present—due to the proximity of civilians.³⁹¹ This is a critical factor that is entirely absent from the accounts of many critics.

Mordechai seeks to argue that the IDF acted in an unusual or negligent manner in its assessment of incidental damage and the reliability of its intelligence,³⁹² but a comparative analysis reveals the opposite: IDF strikes were far more successful than the American strikes against Saddam regime officials in Iraq, which completely failed to achieve their objectives.

In practice, US decapitation strikes were a total failure. None of the 55 Iraqi leaders on the US “blacklist” were killed in the initial strikes, and many of the targeted senior figures died only in subsequent operations, often along with civilian casualties.³⁹³ These strikes—planned over the course of months—benefited from

³⁹¹ For visual evidence see: [https://www.israelhayom.com/2023/05/11/idf-cancels-gaza-strike-due-to-presence-of-children:/](https://www.israelhayom.com/2023/05/11/idf-cancels-gaza-strike-due-to-presence-of-children/) <https://x.com/IDF/status/1722801833691726111>

³⁹² לי מרדכי, "עדות על מלחמת חרבות ברזל", (מעודכן ל-9.3.2025), ע"ע 19-20.

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<https://www.hrw.org/reports/2003/usa1203/4.htm#:~:text=Significant%20civilian%20casualties%20occurred%20in,%20were%20precision%2Dguided%20munitions.>

tactical surprise, the complete security of the US homeland, and the absence of competing operational fronts. Yet they failed, as had previous attempts in Afghanistan and Serbia.³⁹⁴

In contrast, Hamas launched the October 7 attack on its own initiative, prompting its leadership to take precautions. Despite Hamas's claims that Israel failed in its targeted killings, Israeli assessments suggest that most of Hamas's leadership in Gaza has been neutralized, except for two commanders reportedly wounded but not killed.³⁹⁵ Compared to US operations, Israel's strikes have achieved better results despite greater challenges, including targets hidden and shielded behind civilians and civil infrastructure. Proper proportionality assessment must consider the military value, protection level, and difficulty of achieving the target.

As a final point, IDF methods are far from unusual. All the criticisms raised against the IDF's intelligence assessment methods have also been directed in the past against the US military. Israel's intelligence gathering and processing methods are remarkably similar to US-conducted operations based on behavioral analysis and targeting of senior officials' activity, even when their identities were uncertain. In many cases, intelligence proved incorrect. The US also used computerized models to estimate civilian casualties, which promised faster, more accurate risk assessments, but many critics questioned their reliability. Signal tracking and mobile phone eavesdropping also offered limited precision—often no more accurate than a 100-meter radius—resulting in instances of mistaken targeting.³⁹⁶

To reiterate, the threshold for 'permitted collateral damage' represents a maximum limit, not a target to be met. Commanders are expected to minimize civilian harm well below this ceiling. Thus, the reported upper limit of 20 civilian casualties per main target (as cited by +972 Magazine) should not be misconstrued as an average of 20 civilians killed per combatant—far from it.³⁹⁷ Even Israel's harshest critics do not claim it has killed 20 civilians for every combatant.

In conclusion, the claims we have reviewed regarding disproportionate attacks are not properly substantiated, and the comparisons frequently made between Israel and the United States are partial, biased, and lack understanding of the unique strategic and intelligence challenges inherent to each arena.

E. Evacuation Notices and "Safe Zones"

Many UN agencies, human rights groups, and critics of Israel in academia and international media echo the claim that Israel attacked "safe" zones designated for civilians.³⁹⁸ However, this characterization is fundamentally flawed. Israel never officially defined any area in Gaza as a "safe zone" in the strict legal sense, neither at the outset nor afterward.³⁹⁹ This is a misleading framing of the reality on the ground.

³⁹⁴ <https://www.cambridge.org/core/books/abs/air-power-in-the-age-of-primacy/operation-enduring-freedom/3D1FFD423BA7E1581E1C193AF51D405B>, especially pp.19-20. In some cases caution in avoiding collateral damage, as in the case of the failed attack on Mullah Omar, leader of the Taliban, had negative strategic consequences, allowing him to survive and lead the the post-war insurgency for another decade.

³⁹⁵ <https://www.wilsoncenter.org/article/israeli-assassinations-top-hamas-and-hezbollah-officials>

³⁹⁶ <https://casebook.icrc.org/case-study/united-statesunited-kingdom-conduct-2003-war-iraq>

³⁹⁷ https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2485624; <https://jinsa.org/correcting-the-record-on-the-idf-and-lethal-targeting/>

³⁹⁸ לי מרדכי, "עדות על מלחמת חרבות ברזל", (מעודכן ל-9.3.2025), עמ' 20.

³⁹⁹ https://casebook.icrc.org/a_to_z/glossary/hospital-zones-and-localities-hospital-and-safety-zones-and-localities

This critique rests on a flawed understanding of the designation of an area as a 'safe zone', or 'open' and 'unprotected' in legal terms. According to IHL, such a declaration, usually made by mutual agreement, obligates the parties not to conduct military operations within such zones. Simultaneously, local populations and authorities have obligations to act in accordance with the rules of this designated zone.⁴⁰⁰ Nothing prevented Hamas from unilaterally declaring a safe or demilitarized zone. It was further never incumbent on Israel to declare any areas “safer”, as it did.⁴⁰¹ Nor did anything prevent humanitarian organizations from calling on **both** parties to agree upon a designated safe zone or open city where Gazan citizens could shelter without facing displacement. Had they done so, Hamas may have been compelled to comply under popular pressure.

What Israel **has** done is designate areas of intensive combat operations of **higher** risk while advising relocation to other areas with **lower** risk. This was initially done in Gaza City and Northern Gaza, then in Khan Younis (December 2023–April 2024) and Rafah (May 2024–January 2025), and during renewed sieges in northern Gaza (October 2024–January 2025).

By December 2023, Israel had unilaterally designated Al-Mawasi—a region that, at the outset of the war, lacked both military infrastructure and significant civilian habitation—as a 'safer zone.' This designation remained in effect, and the area was not subject to evacuation orders, up to the ceasefire of January 17, 2025. This area was later extended further northwards to Deir Al Balah. International humanitarian organizations and the UN, however, refused to participate in directing supplies and services to this area (until forced to do so by the Rafah operation), arguing that such declarations require mutual consent. This legalistic claim was accompanied by the assertion that in the absence of agreement by both parties, “concentrating civilians in such zones in the context of active hostilities can raise the risk of attack and additional harm”.⁴⁰²

As expected, the UN’s claim overlooked a critical factor: any harm to civilians under these circumstances would stem from Hamas’s decision to relocate its military assets into a relatively unpopulated, presumably tunnel-free area.

Ascertaining whether these areas were indeed safer for the displaced population was not an easy task. The GMOH, an apparatus under Hamas control, routinely withholds the precise locations of casualties in accordance with Hamas directives. As a result, accurately assessing the relative risk to civilians who remained in combat zones compared to those who evacuated is challenging. Fortunately, gender, location, month and ID-specific data provided by the GMOH to Zeina Jamaludine (see also Chapter 5, subsection F and Appendix 5)⁴⁰³ enables us to assess the relative risk faced by civilians who left areas subject to evacuation orders compared to those who remained.

⁴⁰⁰ For this matter, see *Demilitarized Zones*, as described in Article 60 of the First Additional Protocol to the Geneva Conventions of 1977 (<https://ihl-databases.icrc.org/en/ihl-treaties/api-1977/article-60>) and the special protection it receives under Article 85(3)(d) of the same Protocol (<https://ihl-databases.icrc.org/en/ihl-treaties/api-1977/article-85>); *Neutral Zones*, as described in Article 15 of the Fourth Geneva Convention of 1949 (<https://ihl-databases.icrc.org/en/ihl-treaties/gciv-1949/article-15>); or areas protected near hospitals, *Safety Zones*, and other protected places as described in Article 23 of the First Geneva Convention of 1949 (<https://ihl-databases.icrc.org/en/ihl-treaties/gci-1949/article-23?activeTab=>) and Article 14 of the Fourth Geneva Convention of 1949 (<https://ihl-databases.icrc.org/en/ihl-treaties/gciv-1949/article-14>) (hospitals)

⁴⁰¹ <https://interagencystandingcommittee.org/about-inter-agency-standing-committee/statement-principals-inter-agency-standing-committee-humanitarian-chiefs-will-not-take-part#:~:text=NEW%20YORK%2FGENEVA%2FROME%2C,essential%20needs%20are%20met%20and>

⁴⁰² <https://www.ochaopt.org/content/statement-principals-inter-agency-standing-committee-humanitarian-chiefs-will-not-take-part-unilateral>

⁴⁰³ [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(24\)02678-3/fulltext#fig1](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(24)02678-3/fulltext#fig1)

Between October 7 and October 18, only 350,000-400,000 people were assessed to remain in northern Gaza.⁴⁰⁴ By various estimates that number had declined to 200,000-300,000 by early November.

Nonetheless, 3,128 of the region-identified casualties for November were in North Gaza and Gaza City, whereas only 2,320 were killed in the southern Strip, consistent with 80% of the physical damage in the first month of the fighting being concentrated in northern Gaza. Assuming those who remained in the north numbered 300,000, they were 8.5 times more likely to die than those who fled, in defiance of both Hamas orders and UN admonishments that “nowhere was safe”.

In December 2023, within about a month of the start of the Israeli ground incursion into Gaza, the Al-Mawasi area was designated by Israel as a humanitarian zone. This zone was later expanded to Deir al-Balah and the western neighborhoods of Khan Younis.

Hamas exploited Israel’s unilateral declaration by using the zone as a safe haven for its leading officials, notably including Mohamad Deif, who was killed in an airstrike in the area⁴⁰⁵. As of June 1 2025, it continues to use the zone for its own protection. Likewise, Hamas relocated much of its surviving rocket launching capability into Al-Mawasi. Within days of its designation as a humanitarian zone, hundreds of rockets were fired from it into Israel, dozens of which fell within Gaza itself.⁴⁰⁶

Despite housing over half of Gaza’s population during the later stages of the conflict—and despite Hamas’s cynical use of the area for military purposes—the reported death toll within the designated humanitarian zone remained comparatively low. According to BBC Verify, around 550 deaths were recorded in the zone from May 2024 to January 2025, including 90 in the strike targeting Mohammed Deif, Hamas’s military commander. This figure accounts for just 2.1% of all identified deaths between May 2024 and March 2025. Using the GMO “reliable media report” supplemented data for April 30, 2024, this figure is 3.5% of all fatalities between May 2024 and March 2025.⁴⁰⁷

Based on prior incidents, such as the explosion at Al-Ahli al-Mamdani Hospital caused by a misfired Islamic Jihad rocket, it is also possible that some of these casualties resulted from errant Palestinian projectiles. Although it could be that BBC Verify data is not comprehensive, and it certainly covers only part of the war, it should be noted that the GMOH uncharacteristically made every effort to publicize and localize Gazan deaths with the humanitarian zone. In any event, it seems clear that the casualty rate in the humanitarian zone was significantly lower than in the rest of the Gaza Strip.

In summary: those claiming that Israel’s evacuation orders failed to offer security to evacuees⁴⁰⁸ do so on the basis of qualitative and selective reports, not quantitative analysis. In practice, evacuees, especially those who moved to Israel’s unilaterally designated humanitarian zone, had a much higher chance of survival than those remaining in areas subject to evacuation orders.

The depiction of southern Gaza, and later the designated humanitarian zone, as lethal “death traps” was closely aligned with Hamas’s interest in preserving its ability to shield itself behind civilians. Hamas actively sought to prevent civilian evacuation by erecting roadblocks, assaulting those attempting to flee, and amplifying fears about the dangers within the designated safe areas. Yet the data released by the GMOH for October 2023 to June 2024, and independent research by the BBC for the period following May 2024, show that although the risk to evacuees was considerable in absolute

⁴⁰⁴ <https://www.hrw.org/news/2024/10/18/north-gaza-between-death-and-displacement>

⁴⁰⁵ <https://www.nbcnews.com/news/world/dozens-killed-israel-strikes-al-mawasi-hamas-mohamed-deif-rcna161692>, <https://www.bbc.com/news/articles/c4g9p33xd2go>

⁴⁰⁶ https://www.timesofisrael.com/liveblog_entry/idf-says-hamas-has-fired-116-rockets-from-designated-humanitarian-zone-in-gaza/

⁴⁰⁷ <https://www.bbc.com/news/articles/cx2jld7j50eo>

⁴⁰⁸ לי מרדכי, "עדות על מלחמת הרבות ברזל", (מעודכן ל-9.3.2025), ע"ע 20, 59-60.

terms, it was nonetheless substantially lower than the danger faced by those who remained in active combat zones.⁴⁰⁹

Finally, despite the relative safety offered by Israel's unilaterally designated humanitarian zones—and without diminishing Israel's obligation to minimize collateral damage—we reiterate that the most effective way to protect civilians in war zones is through full evacuation, as has occurred in southern Lebanon and other active conflict zones worldwide. In the case of Gaza, however, Arab states—supported by the broader international community—blocked all exits and refused to accept refugees, for reasons outlined in Chapter 2 above.

F. Allegations of specific indiscriminate attacks

Lee Mordechai cites Amnesty's report on four airstrikes in Rafah in early 2024 that reportedly killed 95 civilians,⁴¹⁰ claiming that Israel promised residents complete safety in that area (in fact, the IDF recommended evacuating to Al-Mawasi, not Rafah). He also relies⁴¹¹ on a similar HRW report on the "House of Engineers" strike in Nuseirat on October 31, to which HRW attributed 106 deaths.⁴¹²

Both reports contend that the targeted buildings contained no legitimate military objectives and that Israel failed to provide relevant explanations or justifications. However, their methodology relies primarily on interviews with the victims' families, some of whom were direct witnesses while others conveyed secondhand accounts. As discussed in Chapter 7, this approach suffers from two major flaws:

First, unverified witness accounts have repeatedly proven unreliable for determining the presence or absence of combatants, assessing civilian harm, or identifying legitimate military targets. As will be shown later, similar methodologies used by HRW during the 2006 Lebanon War failed to identify Hezbollah fighters at the sites examined.

Second, focusing on specific high-casualty incidents without clear indications of combatants' presence may create a false impression that all civilian casualties are unjustified, ignoring broader military contexts.

This does not, of course, preclude the possibility that some attacks were based on faulty intelligence or were disproportionate, negligent, or even unjustified and illegal. A particularly tragic example occurred in Beit Lahiya on October 29, 2024, when a building crowded with civilians was bombed in an attempt to target a Hamas sniper. The strike was carried out based on the mistaken belief that the building had been evacuated, without the necessary precautions being taken.⁴¹³ As a result, 132 residents died. Such catastrophic single strikes were relatively rare during the war, partly because of the precautions taken in many other cases.

Regarding many other strikes, it remains difficult to assess their justification without access to the intelligence basis and precautionary measures taken beforehand. The fact that Amnesty and HRW found no evidence of military targets at examined sites via resident interviews does not prove that such targets did not exist. Similarly, Israel's refusal to disclose its intelligence sources regarding specific strikes does not indicate illegitimacy. Military forces do not typically release intelligence during hostilities due to security concerns such as the dangers of revealing intelligence collection techniques, technology, or human intelligence sources. This is a "burden of proof" issue, as discussed in Chapters 7 and 8.

⁴⁰⁹ <https://www.bbc.com/news/articles/cx2jld7j50eo>

⁴¹⁰ <https://www.amnesty.org/en/latest/news/2024/02/israel-opt-new-evidence-of-unlawful-israeli-attacks-in-gaza-causing-mass-civilian-casualties-amid-real-risk-of-genocide/>

⁴¹¹ לי מרדכי, "עדות על מלחמת הרבות ברזל", (מעודכן ל-9.3.2025), עמ' 20

⁴¹² <https://www.hrw.org/news/2024/04/04/gaza-israeli-strike-killing-106-civilians-apparent-war-crime>,

⁴¹³ <https://apps.npr.org/gaza-building-israel-strike-casualties/hebrew.html>

G. The Use of Artificial Intelligence for Targeting Decisions

Finally, we would like to address the use of artificial intelligence to accelerate target identification, as presented in an investigative report by *+972 Magazine*.⁴¹⁴ In our assessment, the use of such technologies does not inherently violate the principles of distinction or proportionality. The claim that the use of AI for such purposes is inherently noncompliant with IHL lacks substantiation through concrete evidence. Within the IDF, AI functions as an intelligence-processing and cross-referencing tool, not an autonomous decision-maker. All operational approvals remain firmly in human hands.⁴¹⁵

True, anonymous soldiers cited in the *+972 Magazine* article suggest that some of their peers employ AI in a hasty or overly mechanical manner. This is a reason for grave concern, as human lives are at stake. However, this criticism arguably applies with even greater force to human decision-making. There is no psychological or empirical basis to the assumption that a fatigued, biased, or stressed human officer necessarily makes more lawful or ethical choices than one who judiciously uses AI as a supplemental, rather than exclusive, tool for analysis. Ultimately, every targeting decision must be assessed according to the established principles of IHL: distinction, proportionality, and military necessity—regardless of whether AI was involved in the process.⁴¹⁶

⁴¹⁴ <https://www.972mag.com/lavender-ai-israeli-army-gaza/>

⁴¹⁵ https://www.taulawreview.sites.tau.ac.il/post/mimran_dahan

⁴¹⁶ לי מרדכי, "עדות על מלחמת חרבות ברזל", (מעודכן ל-9.3.2025), ע"ע 14,18,21.

Conclusion

This chapter examined two central allegations frequently directed at Israel's conduct during the Gaza War: first, that IDF bombings intentionally targeted civilians; and second, that the army conducted bombing operations in a grossly disproportionate manner. After outlining the relevant principles of International Humanitarian Law—particularly those relating to distinction, proportionality, and military necessity—we assessed these claims through a close analysis of operational data and battlefield practices.

The evidence points to a markedly different reality than that portrayed by many critics. The ratio of munitions expended to reported fatalities—fewer than one death per munition even under the highest casualty estimates during the first two months of the war—strongly suggests a pattern of attempted precision and restraint. An army intent on maximizing harm would likely have used fewer munitions against more densely populated areas—especially one facing a shortage of ordnance, the threat of embargo, and the need to conserve stockpiles for potential escalation on additional fronts.

Evacuation orders, though actively obstructed by Hamas and met with reluctance from some humanitarian organizations, nonetheless provided civilians with significantly greater safety. This is reflected in the fact that only 2-3.5% of reported deaths as of March 2025 occurred within the designated humanitarian zone from May 2024 to January 2025. To emphasize again: this is partial data and the actual result may be much higher, yet it is indicative of an overall tendency toward **relative** safety within the humanitarian zones.

The IDF also implemented a range of precautionary measures, including advance warnings, delayed strikes, and, in many cases, outright cancellation of attacks, even when projected civilian harm remained within legally permissible bounds. This conduct reflects an operational posture not of indifference to civilian casualties, let alone deliberate maximization as some critics claim, but of consistent efforts to minimize harm within the realities of military necessity.

We further demonstrated that the use of unguided munitions—so-called 'dumb bombs'—is not inherently unlawful. Given the global shortage of precision-guided munitions and the operational need to reserve them for other active or anticipated theaters, the lawful use of unguided weapons by trained pilots remains fully consistent with the principles of distinction and proportionality, provided that feasible precautions are taken.

None of this is meant to imply that all Israeli strikes were legally or operationally sound. Tragic cases such as the Beit Lahiya incident underscore the devastating consequences that can result from flawed intelligence or misjudgment. What this chapter seeks to contribute is not a blanket exoneration but a methodological clarification. Bombing operations must be judged not solely by their outcomes, however grave, but by the intelligence available at the time, the military value of the target, and the precautions taken to mitigate harm. This is the standard required by International Humanitarian Law, and it is by this standard that claims of wrongdoing must ultimately be evaluated.

Chapter Five: The Question of Casualty Counting and Distribution

Summary

Characterizing the vast majority of the casualties of the 2023-2025 Gaza War as civilians, especially women and children, is a central element of the claim that Israel employs indiscriminate and even destructive combat practices. This claim relies almost entirely on data from Hamas's Gaza Ministry of Health (GMOH), which is routinely cited by human rights organizations, UN agencies, Western countries, and even the Israeli government itself. Based on this, many observers argue that these data are reliable and free from manipulation, and thus reflects a credible picture of civilian harm during the fighting.

This chapter argues that such broad reliance on these data is tainted by the "Certainty Mirage": in a reality where no official alternative exists, any data published by the sole remaining sovereign body in Gaza—the Ministry of Health—becomes the reference point, even if there are substantial reasons to doubt its reliability. The chapter presents a series of empirical and statistical findings that question the credibility of the GMOH data. First, the GMOH does not distinguish between civilians and combatants, in accordance with Hamas's Interior Ministry directive from 2014 to identify fighters fallen in combat as "innocent citizens." Moreover, suspicious and implausible reporting patterns are identified—such as sudden jumps in the rates of child and women casualties—as well as the seeming inclusion of age-associated natural mortality, omission of names from records, and systematic inclusion of casualties from biased media reports.

Throughout the chapter, it is shown that even when data are presented under the auspices of international bodies, in many cases they are derived from the same sources subject to Hamas's direct and indirect control mechanisms.

Finally, an alternative (though speculative) estimate of the actual composition of war casualties is presented. In this model we examine the impact of limited data manipulation in line with anomalies observed in the GMOH data amounting to the inclusion of around 6,400 natural and rocket-misfire-caused deaths in the GMOH lists (13% of the total), and the exclusion of a similar number of male combat-aged deaths from these lists (in line with excess combat-aged males among those reported missing).

When we consider such manipulations, even without allowing for any manipulation in child casualty reporting, the result is a gender/age distribution similar to that which emerged following previous rounds of fighting in Gaza. The number of excess combat-aged male mortality given such manipulations is compatible with IDF claims to have eliminated 20,000 combatants prior to the January 17, 2025 ceasefire. This model is also compatible with GMOH reports of primarily paternal orphans and male amputees.

Finally, it is worth noting that although many of the GMOH's more blatant manipulations and claims were later—quietly and retroactively—corrected, their initial assertion that 70% of the casualties were women and children has had a lasting impact, shaping public discourse far more than the revised, albeit still manipulated, data.

A. Intentional Non-Distinction Between Civilians and Combatants

Since the 2008 Gaza-Israel conflict, and continuing through subsequent military confrontations, Hamas has consistently instructed its operatives and the broader Palestinian population to refrain from disclosing the circumstances surrounding Gazan casualties, including their activities, affiliations, and combatant status. Hamas has further instructed the population to present all those killed as civilians. This directive from the Interior Ministry (see below) was fully implemented by the Gaza Ministry of Health (GMOH), which serves as the main source for reporting casualty figures in conflicts. Below are the directives from 2014 (Operation Protective Edge) in the original Arabic and translation (Figures 15 and 16):



Figure 15: "The Ministry of Interior and National Security calls on all our people and all resistance organizations not to publish information or images of resistance victims and not to specify any details regarding the circumstances or location of their death."⁴¹⁷

From the Hamas Interior Ministry: "*Social Media Activists Always Call the Dead 'Innocent Civilians,' Don't Post About Terrorists*" (courtesy of MEMRI). © MEMRI 2024. Reprinted with permission. https://www.memri.org/reports/hamas-interior-ministry-social-media-activists-always-call-dead-innocent-civilians-dont-post#_edn1

⁴¹⁷ https://www.memri.org/reports/hamas-interior-ministry-social-media-activists-always-call-dead-innocent-civilians-dont-post#_edn1

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السلطة الوطنية الفلسطينية
وزارة الداخلية
THE PALESTINIAN NATIONAL AUTHORITY
Ministry of Interior

من قتل أو استشهد يحمل صفة مواطن من غزة من فلسطين ، قبل أن نتحدث عن مكانه الجهادي أو رتبته العسكرية!

لا تنسى أن تضيف دوماً "مواطن بريء" أو Innocent citizen ، لتصف الذين قتلوا في العدوان على غزة بعد الغارة الإسرائيلية.

حملة تهدف لتوعية نشطاء التواصل الاجتماعي بوسائل النشر المؤثر والوعي خلال العدوان.

#خليك_واعي

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Figure 16: "Everyone who is killed or becomes a martyr should be called a citizen from Gaza, Palestine, before we discuss their status in Jihad or their military rank. Always remember to add 'innocent citizen' in your description of those killed by Israeli attacks on Gaza."⁴¹⁸

From the Hamas Interior Ministry: "Social Media Activists Always Call the Dead 'Innocent Civilians,' Don't Post About Terrorists" (courtesy of MEMRI). © MEMRI 2024. Reprinted with permission. https://www.memri.org/reports/hamas-interior-ministry-social-media-activists-always-call-dead-innocent-civilians-dont-post#_edn1

If the number of Hamas fighters killed were low, the organization would have every incentive to clearly distinguish between civilian and combatant casualties in its reporting—much like Hezbollah did prior to the September 2024 escalation and the loss of thousands of its operatives, in order to highlight its martyrs and emphasize their role in the 'resistance' against Israel. The absence of such differentiation strongly suggests that Hamas sustained significant losses it seeks to obscure.

⁴¹⁸ https://www.memri.org/reports/hamas-interior-ministry-social-media-activists-always-call-dead-innocent-civilians-dont-post#_edn1

B. Lies and Manipulations Regarding the Circumstances of 471 Deaths on October 17

GMOH was caught in blatant lies early in the conflict when it claimed that 471 people had been killed in an Israeli attack on Al-Ahli Al-Mamdani Hospital. This claim was comprehensively disproved with regard to the number of dead, the identity of the attacking side, and the location of the strike. In reality, it was a rocket launched by Palestinian Islamic Jihad that exploded in the hospital's parking lot, not a direct Israeli strike on the hospital, as GMOH spokespersons had claimed. The evidence—including recorded conversations among Palestinians, video footage, and ballistic analyses—was so compelling that, unusually, even leading human rights organizations and foreign governments accepted (or at least did not reject) Israel's position on the matter.⁴¹⁹

Moreover, to support this false claim, the GMOH carried out gross manipulation of casualty data for that day. They included almost no reports of casualties attributed to other strikes that day. These data remained in the Ministry of Health database, demonstrating the ongoing capacity of the GMOH to manipulate data, supplementing or replacing whatever authentic data is fed in by GMOH workers.⁴²⁰ It cannot be denied that the GMOH knowingly lied and extensively manipulated the data it published that day, just as it refused to correct the information later. There is no reason to believe they are incapable of repeating such manipulation, or that their staff are meaningfully constrained by professional ethics from doing so.

As of May 2025, neither the UN nor any major human rights organizations have drawn conclusions about the data falsification mentioned above or conducted any investigations into the reliability of GMOH figures. The absence of any audits, corrections, or inquiries—especially when the weight of evidence and consensus fully contradicts the blatant lies of the Ministry—raises significant doubts not only about the reliability of the Gaza Ministry of Health but also about the credibility of those citing its data.

C. Lack of Logical Correlation in Daily Distribution of Gender and Age of Casualties Between October 27 and November 24, 2023

Between the initiation of ground operations in northern Gaza and the first ceasefire, no statistically significant correlation was observed between the number of women and children killed (Figure 17). These findings seemingly contradict operational logic, as women and children moving together tend to be affected by the same strikes. One possible explanation is crude data manipulation, which does not appear to have occurred in the same manner following the November 2023 ceasefire. Likewise, there is a strong **negative** correlation between men and women (Figure 18), which does not match the reasonable assumption that intense, targeted military activity against combatants (men) would produce higher incidental civilian casualties across all genders and ages (men, women, children).

⁴¹⁹ <https://www.facebook.com/MOHGaza1994/posts/pfbid02VihLzssMVKvwphaoxK71rs9X4fUtNFaXBj9nFamjZ4Z9A56Vu6SZ7GcTLS2yo23fl>, <https://www.idf.il/en/mini-sites/israel-at-war/all-articles/al-ahli-al-ma-amadani-hospital-initial-idf-aftermath-report-october-18-2023/>, <https://www.hrw.org/news/2023/11/26/gaza-findings-october-17-al-ahli-hospital-explosion>, <https://nymag.com/intelligencer/2023/10/israel-hamas-war-everything-we-know-about-the-gaza-hospital-blast.html>, <https://www.theguardian.com/world/2023/oct/23/gaza-hospital-blast-caused-by-militants-rocket-uk-intelligence-sunak-israel-palestine>

⁴²⁰ <https://www.uklfi.com/false-al-ahli-casualties-still-included-in-hamas-un-data>

One possibility is that official casualty numbers were systematically adjusted to provide a "quota" of women and children casualties, without regard to maintaining statistically plausible relationships between gender and age groups. To reiterate, this low correlation is characteristic only of the Gaza Ministry of Health's reports between October 27 and November 24. After the first ceasefire, GMOH changed its data collection and manipulation practices, increasingly relying on "reliable media reports" via the Gaza Media Office to sustain high reported casualties of women and children (Section F).

We also note that the GMOH specifically chose NOT to identify the gender of adult male casualties. "Maleness" is implied by non-identification as women or children with no clear identification of male gender in the absence of individual ID/name identification. We note that this choice, and it is a choice, is not a medical professional decision but rather, much like Hamas directives not to identify combatants, is a tool designed to achieve a propaganda effect and to afford flexibility and ambiguity in their reports.

In any case, Ahmed Hewidy attributes the low correlation between women and children casualties during this period to the earlier identification of child fatalities compared to those of adult women.⁴²¹ When the reporting of female casualties is shifted back by a single day, the correlation improves. Naturally, for such a retroactive adjustment to yield a meaningful correlation, the omission of gender at the time of casualty recording would have to be universal—an unlikely scenario given the information typically available from family members and neighbors. Furthermore, we note that child and female casualty numbers **were** correlated following the November ceasefire. This would indicate a change of GMOH practice, either in method of data manipulation or genuine classification of casualties.

By the same measure, Hewidy claims that the seeming lack of correlation between male and female casualties stems from late identification of female casualties. Once they are identified, he claims, they are subtracted from "implied men", and as the classification is reported later, this throws off the correlation.

However, this seemingly plausible explanation would imply that at any given time, the proportion of **identified** women and children was **lower** than their actual proportion of casualties. It follows that in the final, identified, dated lists, which the GMOH never made public, the actual proportion of identified women and children would be **higher** than the data released by the GMOH in those early months. The GMOH did, however, make these lists available to Zeina Jamaluddine (see Subsection F and Appendix 3)⁴²², whose research was published in February 2025.⁴²³ Gender in these lists is identified. Women and children make up 61% of the casualties in October and 57% in November, much lower than the 70% reported by the GMOH for both months.

Furthermore, the proportion of adult men/adult women for those months is 1.63 and 1.83, respectively, which is consistent with UNWRA reports on male/female employee deaths (section E). For "late-identified" women to throw off the correlation (putting aside the clear indication of a real time overcount of women), they would need to constitute a large part, if not the majority, of the total. We further note that the source we cite for the low/lack of correlation between men/women and women/children, Prof. Abraham Wyner, also advanced claims concerning the low variation of casualties between October 26 and November 10. While this low variation is suspect, it does not extend to the November 24 ceasefire, and hence we cannot view it as a strong indication of data manipulation.

⁴²¹ <https://www.kylteri.fi/en/artikkelit/disinformation-and-statistics-the-case-of-professor-abraham-j-wyner>

⁴²² [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(24\)02678-3/fulltext#fig1](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(24)02678-3/fulltext#fig1)

⁴²³ [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(24\)02678-3/fulltext#fig1](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(24)02678-3/fulltext#fig1)

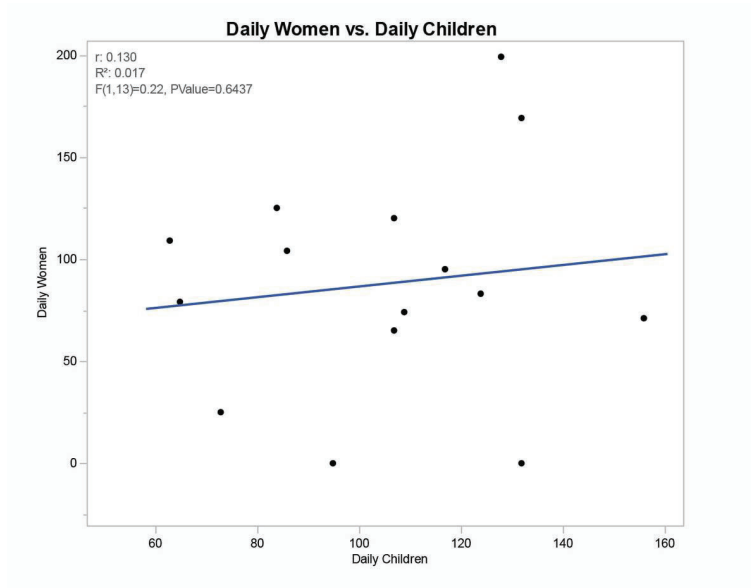


Figure 17: Lack of statistically significant correlation between reported female and child casualties ⁴²⁴

From "How the Gaza Ministry of Health Fakes Casualty Numbers," *Tablet Magazine*, March 7, 2024, by Abraham Wyner.

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<https://www.tabletmag.com/sections/news/articles/how-gaza-health-ministry-fakes-casualty-numbers>

⁴²⁴
numbers

[https://www.tabletmag.com/sections/news/articles/how-gaza-health-ministry-fakes-casualty-](https://www.tabletmag.com/sections/news/articles/how-gaza-health-ministry-fakes-casualty-numbers)

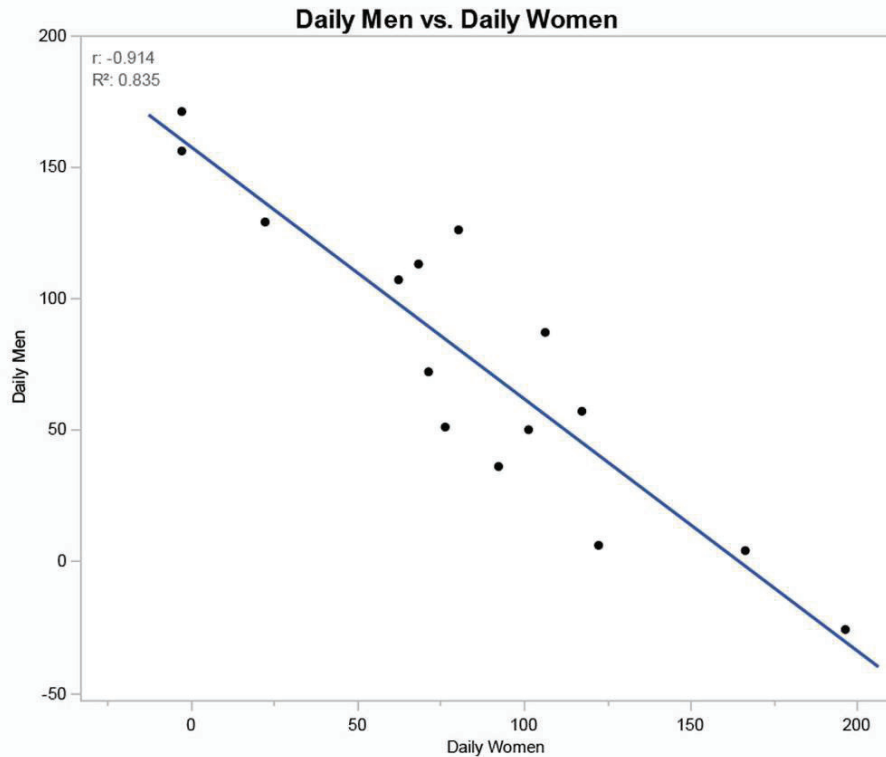


Figure 18: Negative correlation between reported female and male casualties from October 27 to November 24.⁴²⁵

From "How the Gaza Ministry of Health Fakes Casualty Numbers," *Tablet Magazine*, March 7, 2024, by Abraham Wyner. © Abraham Wyner. Published with the permission of Prof. Abraham Wyner. <https://www.tabletmag.com/sections/news/articles/how-gaza-health-ministry-fakes-casualty-numbers>

D. Mismatch Between the Amount of Munitions Launched and Deliberate Killing

Until April 2024, the GMOH persistently reported that over 70% of war dead were women and children—a figure almost precisely matching their proportion in the general population. For example, in December 2023, it reported a 74% rate of women and children casualties, a figure that remained largely unchanged between October 2023 and April 2024 despite drastic shifts in combat dynamics and intensity.⁴²⁶

As extensively discussed in Chapter 4, the quantity of munitions fired by Israel into Gaza at that time exceeded the casualties reported by the Gaza Ministry of Health. Moreover, each individual munition is capable of killing dozens or hundreds of people if aimed at civilian clusters. Israel suffered from ammunition shortages and was facing the prospect of a large-scale regional war and international pressure, including threats of arms embargoes. Considering all this, there is no way to reconcile the high number of munitions, the lower reported casualty figures, and the women and children casualty ratios reported by the GMOH.

⁴²⁵ <https://www.tabletmag.com/sections/news/articles/how-gaza-health-ministry-fakes-casualty-numbers>

⁴²⁶ <https://henryjacksonsociety.org/wp-content/uploads/2024/12/HJS-Questionable-Counting-%E2%80%93-Hamas-Report-web-v2.pdf>, p.19.

As explained in Chapter 4, if the IDF's goal had been the indiscriminate killing of as many civilians as possible, this could have been achieved more efficiently with far fewer munitions, and there would have been no need to use expensive, hard to procure guided munitions crucial to facing regional threats. Incidents where a single bomb or a few bombs killed many civilians demonstrate that Israel did *not* adopt a policy of deliberately targeting civilians, as if that had in fact been Israel's approach, such cases would be not the exception but the norm. A far more plausible explanation is that IDF strikes were based on intelligence identifying military objectives concealed in areas from which most civilians had evacuated, or in zones where combatants were engaged in direct confrontation with Israeli forces.

The uncritical acceptance of GMOH data until April 2023, and the activist and political positions derived from it, serve as a textbook example of the 'mirage of certainty' fallacy—not because the data were later disproven, but because they were evidently flawed from the outset.

E. Low Casualty Rate of Women Among UNRWA Workers

Doubts about the reliability of the GMOH data were dismissed with the claim that UNRWA maintains a separate, reliable register of deaths among its personnel. According to this claim, comparing Ministry of Health data with UNRWA figures would reveal any over-reporting by the Ministry of Health. Since the actual proportion of casualties among UNRWA staff was higher per capita than the Ministry of Health data for October-November, it was argued that the Ministry's figures could be trusted as an accurate reflection of reality.⁴²⁷

But a gender analysis of UNRWA casualties, along with Israeli claims of Hamas infiltration, suggests an alternative explanation. This analysis shows that men accounted for 62% of the casualties among UNRWA staff, despite their constituting only 41% of the 13,000 employees.⁴²⁸ That is, the death rate among male staff was 2.3 times higher than among female staff. It should be noted that these figures relate to **the first three weeks of the war**, during which, according to the Gaza Ministry of Health, women and men died at roughly the same rate.⁴²⁹

This point is crucial, as one of the central claims made by those defending the reliability of the GMOH is that Israel initially made less distinction between civilians and combatants, and that its discrimination improved as the conflict progressed. A parallel argument, as discussed in the next sub-section, is that it was the Gaza Media Office (controlled by Hamas, as is the Ministry of Health) that was responsible for early "inaccuracies", and that GMOH reliance on "reliable media reports" (see below) was the result of the collapse of the GMOH record-keeping system following the onset of the Israeli ground offensive. However, as the gender data on UNRWA workers indicate, both the Israeli distinction between fighters and civilians and the manipulation by the GMOH, not just the Media Office, began immediately upon the start of the war.

F. Retroactive Data Adjustment or Proactive Deception?

Indeed, when the GMOH was asked to provide a list of death dates for a sympathetic researcher⁴³⁰ in the West (Zeina Jamaluddine, mentioned above), with detailed registration locations for each identified individual, a significantly different picture emerged from the official reports. In February 2025, Jamaluddine published an article that had already generated significant attention months before its official release. She

⁴²⁷ Benjamin Q. Huynh, Elizabeth T Chin and Paul B. Spiegel, "No Evidence of Inflated Mortality Reporting from the Gaza Ministry of Health", *The Lancet* (December 2023), [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(23\)02713-7/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(23)02713-7/fulltext)

⁴²⁸ <https://www.telegraph.co.uk/global-health/terror-and-security/unrwa-staff-death-toll-gaza-israel-hamas-war-data/>

⁴²⁹ <https://t.me/MOHMediaGaza/4366>

⁴³⁰ https://x.com/Z_Jamaluddine

claimed that the numbers of traumatic injury deaths released by the Gaza Ministry of Health were underestimated and that the actual death toll was much higher—62,260 people by June 2024 alone.⁴³¹

We will not address the methodological flaws of this study⁴³² or the fact that during the ceasefire between January and March 2025, shortly after the publication of the paper, no evidence was found to confirm its casualty estimates, similar to other catastrophic predictions of death from famine and disease (see Chapter 1). Rather, we focus on the most important tool provided in Jamaluddine's study: its database. The database was supplied to this researcher exclusively by the GMOH and is included as an appendix to her paper.⁴³³ Unlike the public data, where dates and locations of death remained confidential, in this database the identities, dates, and locations (by district) of war casualties, authentic or otherwise, are openly listed—proof that withholding this information was a deliberate choice by the GMOH.

Examining the gender and age distribution of casualties in October 2023 shows that women and children did not constitute 72% of total casualties at that time, as claimed by the Ministry from that point onward. They did not even make up 68%, as per the data released by November 2, 2024.⁴³⁴ Rather, women and children accounted for no more than 61% of identified casualties in the initial weeks of the war during October and 57% of the casualties during November. This is a significant difference—a ratio of men to women and children 1.63-1.83 times higher than the ratio declared or implied by GMOH statements throughout the first six months of the Gaza War.

It is worth noting that this is the first and only time that dates of death were provided by the GMOH—and even then, only privately, and to a sympathetic scholar. It remains possible that the dates were manipulated to preserve the appearance of consistency with the GMOH's early reports. The actual distribution of casualties may, in fact, be far more evenly spread.

Nonetheless, even if these figures reflect only a "silent retroactive correction," it was an extraordinarily silent one even compared to other examples encountered in this work. An alternative possibility is that this was an intentional and successful effort to create the impression of indiscriminate killing in the first month of the war. This effort proved so effective that even after the GMOH came under pressure to provide basic verification of its claims, the false impression was sustained for over six months through reliance on data from the Gaza Media Office.

G. Filling Women and Children Casualty Quotas Based on "Reliable Media Reports"

Starting in November 2023, reports from the GMOH began to be supplemented with "reliable media reports" from the Gaza Media Office (GMO), which comprised an increasingly large portion of casualty reports.⁴³⁵ By March 18, these reports accounted for 62% of all reports. From the outset, they served as a clearly unreliable means of artificially inflating the proportion of women and children among the casualties. In this context, it is important to note the following data and trends:

⁴³¹ [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(24\)02678-3/fulltext#fig1](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(24)02678-3/fulltext#fig1)

⁴³² https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5115647

⁴³³ https://github.com/ZainaJamaluddine/gaza_mortality_capture_recapture

⁴³⁴ <https://t.me/MOHMediaGaza/4366>

⁴³⁵ Palestinian Ministry of Health/Gaza, Telegram post, 12 December 2023, <https://t.me/MOHMediaGaza/4576>; "Gaza Fatality Figures Repository", Palestinian Ministry of Health, 12 December 2023, <https://ia601203.us.archive.org/14/items/mohramallah-11-3/MOH%20-%20Gaza%20-%202012-11.pdf>; Health Sector Emergency Report, Palestinian Ministry of Health, 1 March 2024, <https://ia600208.us.archive.org/23/items/moh-gaza-health-sector-emergency-reports/MOH%20-%20Gaza%20-%202-29.pdf>; Palestinian Ministry of Health/Gaza, Telegram post, 1 March 2024, <https://t.me/MOHMediaGaza/5098>.

- While casualty reports from the GMOH until November 2, 2023 (by which point individuals had not yet been identified by name or ID) indicated that 68% of 9,061 casualties were women and children, this percentage was rounded up to 70% in Gaza Media Office reports.
- Conversely, men added to the total casualties reported by the GMOH until December 11, 2023 constituted 50% of all casualties (with adult women representing a statistically improbable 39% of all casualties and children only 11%).
- Meanwhile, the casualty count from the Gaza Media Office—purportedly relying on "reliable media reports"—omitted 1,381 men from total casualties while adding 1,851 women and 3,673 children.
- Men accounted for 52% of the 8,563 casualties listed by the GMOH between December 11, 2023, and March 23, 2024.
- Conversely, between December 2023 and March 23, 2024, 14,602 deaths were added based on the same "reliable media reports" incorporated into the Gaza Media Office reports linked to the Ministry of Health's reports—and of these, only 8% were men.⁴³⁶

Thus, the reported mortality rates for women and children in the Ministry of Health's data decreased significantly over this period. This trend correlated with increasing demands for the Ministry to corroborate its data with names and identifiers of victims. Yet at the same time, mortality rates reported through "reliable media reports" suddenly spiked, as did the ratio of women and children in these reports. This phenomenon is statistically illogical unless those "reliable reports" were deliberately created to maintain the impression that a high proportion of war victims are women and children.

It should be noted that research has clearly pointed to media manipulation by channels and websites controlled by Hamas or associated with it—an ecosystem of "reliable information sources" that refer to each other within a closed loop. This system includes a long list of websites and social media accounts that supposedly are not affiliated with Hamas and are even perceived as private or anti-establishment, but which in reality operate under its guidance or inspiration, all to create a false appearance of credibility.⁴³⁷

G. Phasing out Reliance on "Reliable Media Reports" and Shifting the Burden of Filling Women and Children Quotas to the Ministry of Health

On May 6, 2024, the UN decided to disregard Gaza Media office-linked gender and age distribution of reported casualties and rely solely on GMOH lists with ID and name-verified casualties. As a result, the **cumulative** number of **identified** women and children casualties dropped overnight from 69% of all

⁴³⁶ <https://t.me/MOHMediaGaza/4366>, <https://t.me/MOHMediaGaza/4576>, <https://t.me/MOHMediaGaza/4587>, <https://t.me/MOHMediaGaza/4691>, <https://t.me/MOHMediaGaza/4900>, <https://t.me/MOHMediaGaza/4900>, <https://t.me/MOHMediaGaza/4909>, <https://t.me/MOHMediaGaza/4964>, <https://t.me/MOHMediaGaza/4969>, <https://t.me/MOHMediaGaza/4994>, <https://t.me/MOHMediaGaza/5098>, <https://t.me/MOHMediaGaza/5117>

⁴³⁷ Harel Chorev Halewa, "Palestinian Lone Assailants, 2015-2023: Suicide Legitimacy Communities and Duped Attackers, *Studies in Conflict and Terrorism* (published online, 17.9.2024), pp.14-19. <https://doi.org/10.1080/1057610X.2024.2403154>, an also idem, "Collectivindualism and Shadow Players: Palestinian Youth, Social Media and Hamas' Communication Strategies", *International Journal of Communication*, vol.14 (2020), pp.1-23.

fatalities to 52%. At around the same time, a new category of "elderly" was introduced into UN reports, likely to obscure the sharp change in the data.⁴³⁸

Concurrent with the pressure on the GMOH to provide IDs to back its casualty claims, a disproportionate number of women's and children's IDs inputted into the system proved to be invalid. In the April 1 data table released by the GMOH, exclusion of invalid IDs reduced the share of women and children in the casualties from 56.4% to 53.3%.⁴³⁹

Until the exposure of the "reliable media reports" deception and before the UN's refusal to include unidentified victims in the age and gender breakdown of casualties, the proportion of adult men was similar in both the "family reports" and the Ministry of Health reports. However, from that point onward, the proportion of adult men in the Ministry of Health's data began to decline significantly. For example, while men constituted 60% of all casualties in family reports from January to March 2024 (compared to 58% according to Ministry of Health data), between April and August, their proportion in family reports rose to 64%, while in Ministry of Health data, it plummeted to 45% by August 2024. These figures indicate that after losing the ability to inflate the proportion of women and children among the casualties using unverified media reports, the Gaza Ministry of Health turned to manipulating the registration of identified casualties in its records—this time in a way that is more difficult to detect. We suggest a possible method for how this manipulation might have been carried out at the end of this chapter.

G. Filling Women and Children Caseloads Through Sudden Additions

Evidence of manipulation in mortality data can be seen in sudden spikes in casualty reports following the exposure of the "reliable media reports" deception. These spikes are characterized by an implausible representation of women and children relative to previous levels. For example, on March 31, 2024, Al-Aqsa Hospital reported a cumulative 4,994 dead, but just a week later, the figure increased sharply by 1,614 to 6,608. Of these new casualties, 848 were children, constituting 52.5% of the increase—double the previous proportion.⁴⁴⁰ Similar anomalies occurred throughout the war, with women and children a disproportionately large fraction of the added casualties whenever large numbers of new deaths were introduced to the GMOH lists.

For instance, on October 19, 2023, the GMOH reported a total of 3,785 deaths, up from 3,000 two days earlier—a 785-person increase;⁴⁴¹ but the number of children killed that day increased by 671, from 853 to 1,524, representing 85% of the total increase. On October 26, 2023, total casualties rose from 6,547 to 7,028, an increase of 481, but the reported increase among women and children was 626 (417 women and 209 children)—more than the overall increase.⁴⁴² From Oct 27th - 29th, the number of women and children killed increased from 4,830 to 5,386, making this a total increase of 556 (286 children and 270 women)⁴⁴³

⁴³⁸ <https://www.cfr.org/blog/un-halves-its-estimate-women-and-children-killed-gaza>

⁴³⁹ <https://aoav.org.uk/2024/analysis-of-new-death-data-from-gazas-health-ministry-reveals-several-concerns/>

⁴⁴⁰ Gaza Ministry of Health Emergency Report, 31 March 2024

⁴⁴¹ "Hostilities in the Gaza Strip and Israel | Flash Update #13", UN OCHA, 19 October 2023, <https://www.ochaopt.org/content/hostilities-gaza-strip-and-israel-flash-update-13>., "Hostilities in the Gaza Strip and Israel | Flash Update #11", UN OCHA, 17 October 2023, <https://www.ochaopt.org/content/hostilities-gaza-strip-and-israel-flash-update-11>.

⁴⁴² "Hostilities in the Gaza Strip and Israel | Flash Update #20", UN OCHA, 26 October 2023, <https://www.ochaopt.org/content/hostilities-gaza-strip-and-israel-flash-update-20>.

⁴⁴³ "Hostilities in the Gaza Strip and Israel | Flash Update #23", UN OCHA, 29 October 2023, <https://www.ochaopt.org/content/hostilities-gaza-strip-and-israel-flash-update-23>. "Hostilities in the Gaza Strip and Israel | Flash Update #22", UN OCHA, 28 October 2023, <https://www.ochaopt.org/content/hostilities-gaza-strip-and-israel-flash-update-22>

On October 31, 2023, the Ministry of Health reported 8,525 casualties, an increase of 216 from the previous day, but 210 of these were women and children—97% of the new casualties. From Nov 6th - 7th, the death toll rose from 10,022 to 10,328. The cumulative total of women and children reported on the 6th was 6,558 (4,008 children and 2,550 women). The Nov 7th report claimed that 67% of the new total (10,328) are women and children, or 6,919 – an increase of **361**, despite the GMoH claiming that only **306** were killed in that timeframe. In other words, women and children made up **118%** of the total increase..⁴⁴⁴ On December 5, 2023, the Ministry of Health reported 16,248 dead, up from 15,207 three days earlier—an increase of 1,041, but 1,353 of the new deaths were women and children (628 women and 725 children), a figure that significantly exceeds the overall increase.⁴⁴⁵

On December 5, 2023, the Ministry of Health reported 16,248 dead, compared to 15,207 three days earlier—an increase of 1,041. However, during that same period, it was reported that 1,353 of the new casualties were women and children (628 women and 725 children), a figure that significantly exceeds the overall increase in reported casualties.⁴⁴⁶

These periodical spikes strongly suggest data manipulation intended to artificially increase the proportion of women and children among the total tally of casualties.

H. Removal of Confirmed Dead from Lists Identified by the Ministry of Health

In March 2025, approximately a year and a half after the start of the war and shortly before the resumption of hostilities at the conclusion of the second ceasefire, the Gaza Ministry of Health published an updated list of confirmed casualties. Soon thereafter, Salo Aizenberg identified 3,400 names that appeared in the August and October 2024 lists but had been removed from the March 2025 list⁴⁴⁷. This revelation forced the GMOH spokesperson to admit that 3,952 names that had been previously verified by the GMOH as casualties had been removed from the lists during the war. These names included both those reported online by family members (the majority) and at least 800 names recorded by doctors at hospitals during body identification.⁴⁴⁸

It is important to note that although from April 2024 onward there was an overrepresentation of men in online reports compared to allegedly forensic-confirmed reports by the Ministry of Health, as described in section G, the gender and age distribution of the omitted names versus the remaining names was almost identical—a statistically unlikely outcome. If one transmission method (online reports) with different gender characteristics (more men) was responsible for most of the omissions, then the gender and age characteristics of the omitted names should have reflected that.

⁴⁴⁴ 3 “Hostilities in the Gaza Strip and Israel | Flash Update #25”, UN OCHA, 31 October 2023, <https://www.ochaopt.org/content/hostilities-gaza-strip-and-israel-flash-update-25>. ; “Hostilities in the Gaza Strip and Israel | Flash Update #24”, UN OCHA, 30 October 2023, <https://www.ochaopt.org/content/hostilities-gaza-strip-and-israel-flash-update-24>.

⁴⁴⁵ 7 “Hostilities in the Gaza Strip and Israel – reported impact | Day 60”, UN OCHA, 5 December 2023, <https://www.ochaopt.org/content/hostilities-gaza-strip-and-israel-reported-impact-day-60>. ; “Hostilities in the Gaza Strip and Israel – reported impact | Day 57”, UN OCHA, 2 December 2023, <https://www.ochaopt.org/content/hostilities-gaza-strip-and-israel-reported-impact-day-57>.

⁴⁴⁶ 7 “Hostilities in the Gaza Strip and Israel – reported impact | Day 60”, UN OCHA, 5 December 2023, <https://www.ochaopt.org/content/hostilities-gaza-strip-and-israel-reported-impact-day-60>. ; “Hostilities in the Gaza Strip and Israel – reported impact | Day 57”, UN OCHA, 2 December 2023, <https://www.ochaopt.org/content/hostilities-gaza-strip-and-israel-reported-impact-day-57>.

⁴⁴⁷ <https://www.euronews.com/2025/04/03/hamas-run-health-ministry-quietly-removes-thousands-from-gaza-death-toll-researchers-find>

⁴⁴⁸ <https://news.sky.com/story/hundreds-of-names-removed-from-official-gaza-death-list-13341928>

Additionally, it should be emphasized that the Gaza Ministry of Health did not initiate the report of omissions; it responded only after the omitted names were exposed.⁴⁴⁹ Following this revelation, the Ministry of Health provided several problematic explanations for the omissions, including:

- a. "Living people complained that they were registered as dead."
- b. "We found that some families reported natural deaths as caused by the war. Perhaps people died from a heart attack near an explosion, for example."
- c. "Hospital officials worked without full names or access to population registration data, leading to confusion and incorrect registration of individuals in hospitals."⁴⁵⁰

These explanations are not credible (for example, how would a hospital official, without access to registration data, know to input incorrect names and IDs that appear in the population registry?), but they hint at possible data manipulation methods and their limitations (see section L).

Following this effort at damage control by the Ministry of Health, the Henry Jackson Society (HJS) research institute reviewed all the Ministry's casualty lists from the beginning of the war and found that no fewer than 6,394 names from its various lists had been removed during the war, as detailed below:⁴⁵¹

- 1,920 names were removed between the October 2024 list and the March 2025 list.
- 1,792 names were removed between the August 2024 list and the October 2024 list.
- 2,682 names were removed between the April 2024 list and the August 2024 list.

These are enormous numbers, amounting to 12.78% of the total recorded by the GMOH. However, what is equally interesting is the identity of some of the removed individuals. Contrary to the Gaza Ministry of Health spokesperson's claims that these were solely people who did not die or were mistakenly reported as having died from traumatic injuries, at least some of them were family members of Hamas senior leadership who were almost certainly slain by the IDF, including:

- Naeem Ibrahim Khalil Sinwar – cousin of Yahya Sinwar, aged 62, ID 960218345;
- Meryam Hassan Mahmoud Al-Sinwar – Yahya Sinwar's aunt, aged 85, ID 960218329;
- Rami Hussain Sinwar, daughter of Hassan Ibrahim Khalil Sinwar, cousin of Yahya Sinwar: aged 13, ID 429915119;
- Meryam Hassan Ibrahim Al-Sinwar, aged 4, ID 442398806.

Others were senior members of Hamas's military wing who were also very likely killed, such as Hamdan Mahmoud Hamdan Al-Astal, commander of the Tel Sultan Battalion, who participated in the October 7 massacre.⁴⁵²

Finally, medical personnel identified in Israeli reports as Hamas operatives were also removed, such as Zaki Ahmad Zaki Darwish, Dr. Ziad Al-Tartar, Dr. Ahmad Al-Safer, and Dr. Mohammad Al-Shami (appeared

⁴⁴⁹ <https://honestreporting.com/vanishing-victims-hamas-scrubs-thousands-of-confirmed-civilian-deaths-from-its-fatality-list/>

⁴⁵⁰ Ibid.

⁴⁵¹ <https://henryjacksonsociety.org/wp-content/uploads/2025/04/HJS-Hamas-Casualty-Reports-Report-WEB-correct.pdf>

⁴⁵² <https://www.idf.il/en/mini-sites/idf-press-releases-israel-at-war/september-24-pr/several-terrorists-in-hamas-tel-al-sultan-battalion-eliminated/>

in February 2024, removed in August 2024), as well as "journalists" identified as operatives, like Ismail Al-Ghul.⁴⁵³

It appears that these removals aimed to preserve a narrative of Israel targeting journalists and medical personnel unrelated to Hamas so as to avoid exposing information about the deaths of Hamas family members that could lead to demoralization, and of course to reduce intelligence and public exposure of the deaths of prominent military operatives. Furthermore, organizational discipline regarding funerals for Hamas and Islamic Jihad fighters had already begun to loosen (see Chapter 7)—and when the names of buried individuals were published on social media, they were often absent from the GMOH lists (see Figure 19):



Figure 19: List of Hamas and Islamic Jihad fighters missing from Gaza Ministry of Health casualty lists⁴⁵⁴

From: Lewi Stone and Gregory Rose, *“Hamas Casualty Reports and a Tangle of Technical Problems”*, Centre for New Middle East, Henry Jackson Society (April 2025). © Henry Jackson Society. Reprinted with the permission of the Henry Jackson Society, p. 36. <https://henryjacksonsociety.org/wp-content/uploads/2025/04/HJS-Hamas-Casualty-Reports-Report-WEB-correct.pdf>

I. Natural Death Inclusion Indications in GMOH Lists

We emphasize again that the GMOH claimed throughout the war that its lists only include direct casualties from Israeli attacks, not non-traumatic deaths. In fact, since the outbreak of the war, neither the GMOH nor the PCBS has released any comprehensive data regarding non-traumatic mortality—not even during the ceasefire between January and March 2025, despite claims by the GMOH spokesperson that they intended to do so by the end of 2024.⁴⁵⁵

However, well before the Gaza Ministry of Health’s announcement in November 2024 that its lists included 1,800 natural deaths, individuals whose known natural causes of death—such as from cancer, during treatments in Israel—were identified in the lists. In fact, according to data published in Andrew Fox’s report

⁴⁵³ “Hamas Documents Reveal the Depth of the Collaboration Between Al Jazeera and the Hamas Terrorist Organization”,

IDF, 29 October 2024: <https://www.idf.il/en/mini-sites/idf-press-releases-israel-at-war/october-24-pr/hamas-documents-reveal-the-depth-of-the-collaboration-between-al-jazeera-and-the-hamas-terrorist-organization/>

⁴⁵⁴ <https://henryjacksonsociety.org/wp-content/uploads/2025/04/HJS-Hamas-Casualty-Reports-Report-WEB-correct.pdf>

⁴⁵⁵ <https://everycasualty.org/opening-the-black-box-fresh-insights-into-the-casualty-recording-system-of-the-gaza-ministry-of-health/>

at HJS, these details were known to the Gaza Ministry of Health itself, which recorded their presence in Israel at the time of their deaths as due to Israeli military activity.⁴⁵⁶

Significantly, spokesperson Zahir Al-Wahhidi only issued a retroactive correction removing 1,800 natural deaths after their presence on the lists was noticed by others.⁴⁵⁷ In the media and activist ecosystem where the Gaza Ministry of Health operates, the impact of a false report of a high number of women/children/civilians killed is vastly greater than that of a retroactive correction that receives no publicity. As will be seen, this phenomenon is not unique to reporting the number of dead. Thus, UNRWA's claims regarding a humanitarian supply crisis in May 2024 (Chapter 1), the UN's claims of excess mortality of half a million Iraqi infants under sanctions in 1999, and the Palestinian Authority's claims of the massacre of thousands of Palestinian civilians in Jenin in 2002, all triggered significant international responses, despite being false from the outset and later recognized as such even by some of the original claimants.

Nonetheless, we note that the GMOH casualty lists shows no overrepresentation of mortality among children aged 0–5 compared to older children. Since natural mortality is concentrated in this age group, especially in the first year of life (due to untreatable genetic conditions, birth defects and higher susceptibility to infectious diseases), such an excess mortality would be expected if the Gaza Ministry of Health had indiscriminately included all natural deaths in its reports without any partial attempt to conceal data manipulation.⁴⁵⁸ However, our analysis shows that the supposedly traumatic mortality rate among elderly people is much higher than their share of the population would indicate, particularly for women. From the age of 25 and up, the higher a woman's age, the greater her probability of being listed in the Ministry of Health's lists (see Figure 20).

Had the reported trauma-related death rate (to reiterate, the Gaza Ministry of Health claims that all reported deaths are directly caused by Israeli strikes) among all women been equal to that of women aged 18–24, the number of reported female casualties aged 25 and over would be 2,763 lower. The reported mortality rate of those aged 25 and over in Gaza in 2019 (before the COVID-19 pandemic and without significant combat with Israel) was 2,638.⁴⁵⁹ Adjusted for population growth to 2023, over the 531 days between October 17, 2023 and March 2 2025, this amounts to 6,848 people. The female mortality rate in the Palestinian territories for this age range is 46%, or 3,160 women. This figure is almost identical to the excess age-related mortality we identified. This similarity indicates that this natural mortality was indeed included in the Gaza Ministry of Health's reports, despite its denials.

⁴⁵⁶ <https://henryjacksonsociety.org/wp-content/uploads/2024/12/HJS-Questionable-Counting-%E2%80%93-Hamas-Report-web.pdf>

⁴⁵⁷ <https://news.sky.com/story/hundreds-of-names-removed-from-official-gaza-death-list-13341928>

⁴⁵⁸ <https://www.mekomit.co.il/%D7%A0%D7%AA%D7%95%D7%A0%D7%99-%D7%94%D7%AA%D7%9E%D7%95%D7%AA%D7%94-%D7%A9%D7%9C-%D7%9E%D7%A9%D7%A8%D7%93-%D7%94%D7%91%D7%A8%D7%99%D7%90%D7%95%D7%AA-%D7%91%D7%A2%D7%96%D7%94-%D7%9E%D7%94%D7%99%D7%9E/>

⁴⁵⁹ <https://www.pcbs.gov.ps/Downloads/book2557.pdf>

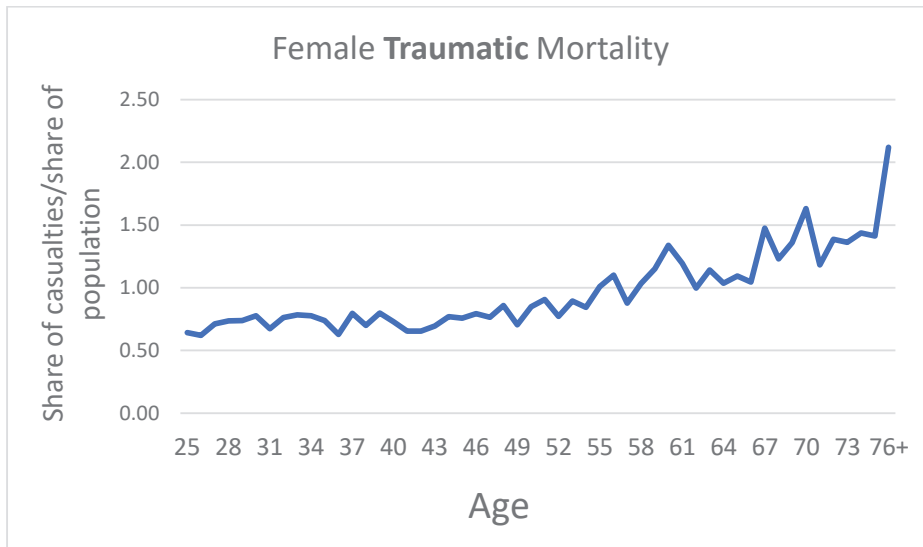


Figure 20: Ratio of female casualties relative to their proportion in the population across different age groups. The increase with age matches natural mortality.

It goes without saying that there is no reason for middle-aged and elderly women to be more likely to be combatants or be misidentified as combatants compared to younger women. Nor is there any reason to believe they would be the targets of unjustified attacks more than younger women. It is possible that these mortality figures reflect greater difficulty in evacuating combat zones or higher death rates from injuries, but the almost perfect correlation of increased traumatic death risk, the absence of higher mortality among vulnerable young girls, and the extreme death rates among very elderly women (5% supposedly traumatic mortality among women aged 87+) suggest that the age-related excess mortality linked to natural death in the segment is best explained by its inclusion in the reports of traumatic mortality.

The excess mortality among elderly men—7% of all those aged 87+—aligns more with the shorter lifespan of men in Gaza (as in most countries) than it does with greater vulnerability to injury. For example, the Ministry of Health claims that two of the four males aged 100 in Gaza died from Israeli-inflicted injuries, as well as 19 of 56 males aged 95 and 12 of 35 males aged 96. Assuming that natural mortality among men has been fully absorbed into the GMOH reports (it is possible that only those aged 60+ could not be suspected of being combatants), this indicates 4,530 natural deaths are concealed in the war casualty reports, including up to 1,730 men aged 60+ and up to 2,800 women of all ages.

Alternative speculative explanations for excess mortality among the elderly

We attempted to find alternative explanations for age-related mortality increases, particularly among women but also among men (where it is masked by involvement in fighting or false accusations of same):

- *It is a common result of armed conflict that more elderly people will die.* Excess elderly mortality in conflicts is not unusual; in fact, it is almost the norm. However, this excess is usually not traumatic but results from the collapse of healthcare, nutrition, and support systems, and is reflected in a parallel increase in infant mortality. The Gaza Ministry of Health has already stated that it does not include such mortality in its lists. Whether excess non-traumatic mortality arises from the war or not, it should not appear in the lists, and if it did, it would also be reflected in excess mortality among young children.

- *Elderly people are more vulnerable to the consequences of traumatic injury.* Although they were not more affected by Israeli attacks, more of them died. While we cannot dismiss this possibility, this vulnerability also exists among young children. If this were a significant factor, we would expect it to be reflected among them as well. No such indication exists, and as noted, there is no precedent for excess traumatic mortality among the elderly in conflict situations without excess traumatic mortality among children.

- *Elderly men and women resisted evacuation from combat zones more frequently or were unable to evacuate.* This explanation seems intuitively convincing, given the vastly higher casualty rates among those who remained in evacuation zones versus those who evacuated to humanitarian areas, and numerous anecdotal reports of abandoned elderly people. However, the nearly perfect match between the rise in traumatic death reports, even among women in their 40s who are mothers, and the expected increase in natural mortality, weakens the plausibility of this explanation.

J. Gender and age distribution is consistent with previous combat cycles

According to GMOH information as of March 2025, after "retrospective adjustments" of the data, 33,517 confirmed casualties are males of all ages—67% of all casualties. Adult men aged 18–59 constitute 45% of all fatalities—significantly highlighted in the visual presentation of the data (see Figure 21). Overall, the **excess** male mortality (ages 11-59) that is consistent with involvement in the fighting amounts to 15,760 individuals (see Table 6).

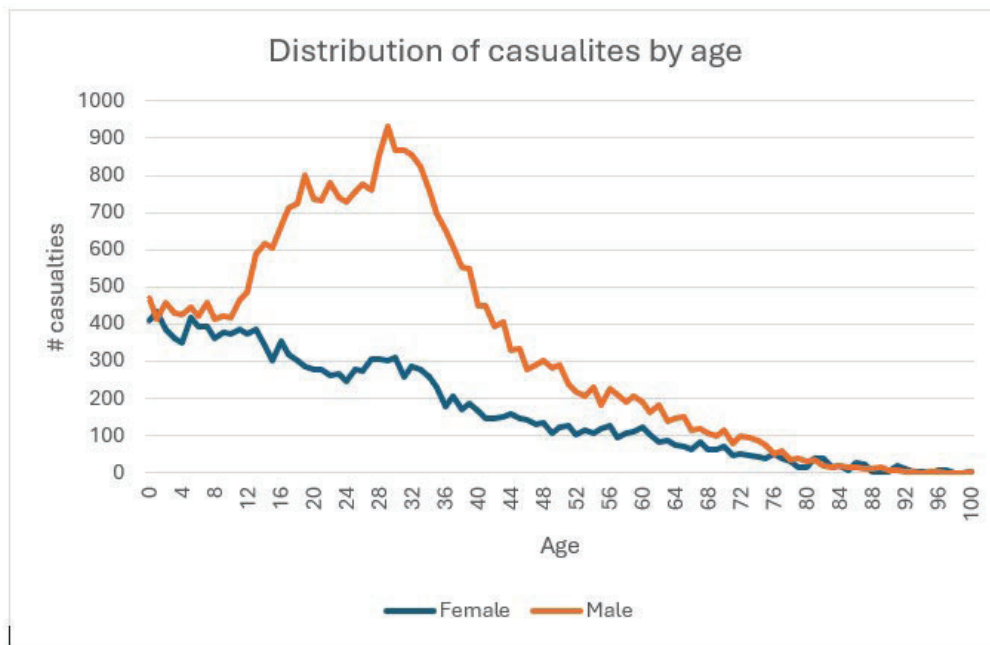


Figure 21: Significant excess male mortality in the fighting age group (14–59), especially among ages 18–40

However, an analysis of the age distribution of reported fatalities compared to their **proportion** in the population reveals an overrepresentation of older women and elderly men (see Figure 22), consistent with natural mortality. This natural mortality likely masks the lower mortality rate among men aged 40-70, before rising natural mortality surpasses decreasing traumatic death rates.

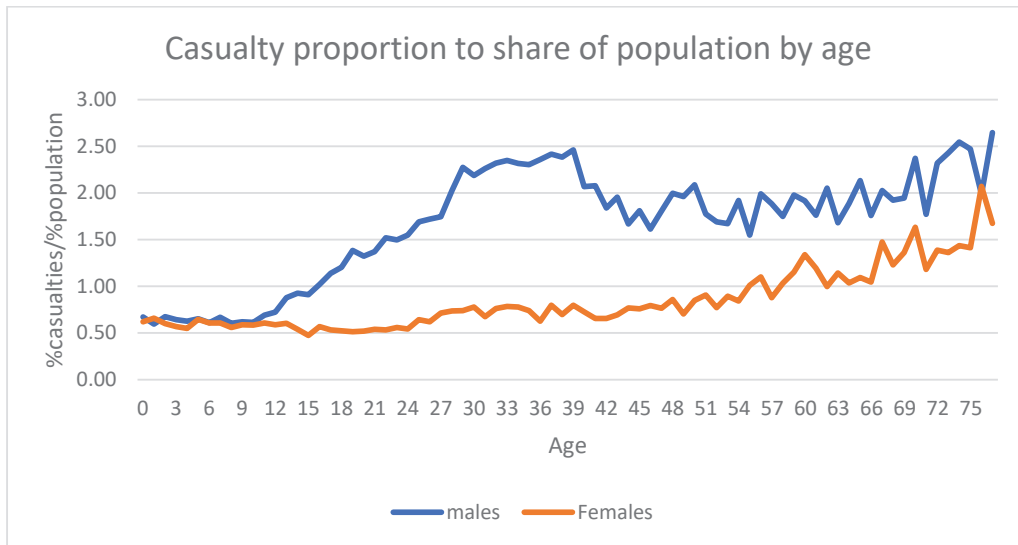


Figure 22: Excess mortality among older women and elderly men. Data for ages 76-87 and 87+ are combined into two groups due to small sample sizes.

Furthermore, if the excess age-related natural mortality among women is subtracted from the calculation, adult men account for 46.5% of all fatalities. A significant disparity is also observed among boys aged 15-17 and even aged 11-14, compared to girls (see Figure 22). This gap suggests the well-documented Hamas practice of using underage boys as combatants and combat support roles (spotters, runners, ammunition suppliers, IED placers, etc.), observed during Operation Protective Edge.⁴⁶⁰ During the current conflict, anecdotal reports have indicated widespread recruitment of underage fighters into Hamas to replenish dwindling ranks,⁴⁶¹ a practice also reported toward the end of Operation Protective Edge in 2015.⁴⁶²

How does this distribution compare to previous combat cycles? During Operation Protective Edge, according to the 2016 B'Tselem report,⁴⁶³ the number of women aged 18-59 who were killed was 247 out of 2,202 total casualties, or about 11.12%. This compares to 8,304 in the 2023-2025 Gaza War, constituting 16.6% of the total. However, subtracting excess age-related mortality (1,870) from this segment, women aged 18-59 account for 14% of all casualties—a statistically negligible difference, though still tragic and morally disturbing.

Notably, the data segmentation from B'Tselem relies on data curated a year and a half after the fighting ended. It also likely undercounted combatants whose identity Hamas safeguarded. In the immediate aftermath of the conflict, the proportion of women claimed as casualties was much higher, at 22.7%, according to the PA report to the UN in April 2015.⁴⁶⁴ Incomplete reports coming out of the GMOH during the 2014-2015 conflict, as well as family surveys conducted by B'Tselem in the immediate aftermath of the war, provided an even higher percentage of women and children.

Regardless, the proportion of women and children in the post-conflict PA report, let alone the conflict coterminous report, was somewhat higher than that reported by the March GMOH lists. It is quite possible

⁴⁶⁰ https://www.terrorism-info.org.il/Data/articles/Art_20713/H_161_14_1118019024.pdf

⁴⁶¹ <https://www.israelhayom.com/2024/06/18/hamas-resorts-to-enlisting-16-year-olds-in-desperate-attempt-to-shore-up-manpower/>

⁴⁶² <https://www.cbsnews.com/news/hamas-grows-with-young-recruits-eager-to-fight-israelis/>

⁴⁶³ https://www.btselem.org/hebrew/press_releases/20160720_fatalities_in_gaza_conflict_2014

⁴⁶⁴ State of Palestine, Ministry of Health, "Health Conditions in the Occupied Palestinian Territory", 68th World Health Assembly, 15.5.2015, Annex. <https://www.un.org/unispal/document/auto-insert-201329/>

that just as the inflated 2015 figure was redacted once the fog of war cleared, a similar outcome may emerge after the conclusion of this war. Or it may not, regardless of the underlying reality, as the amount of data to sift through, the length of the conflict, and the exclusion of non-Hamas actors from the Strip in the intervening decade make independent assessments much more difficult.

The larger gap is among minors under 18. In Operation Protective Edge, 526 minors were killed, or 26% of all casualties. In this conflict, minors constitute 31% of all reported casualties (table 6). However, when adjusting for the population discrepancy (corrected for population proportions) between boys and girls, minors account for 28% of all casualties—a human tragedy, but not a significant difference in the nature of fighting or an indicator of discriminatory targeting by the IDF.

Age group	Males				Females				Male female Gap (ages 11-59)
	Casualties	% casualties	% population	%casualties/ % population	Casualties	% casualties	% population	%casualties/ % population	
0-10	4253	8.50	14.19	0.60	4765	9.53	15.01	0.63	
11-13	1146	5.09	2.29	0.45	1540	5.36	5.36	0.76	
14-17	1315	3.70	2.63	0.71	2594	3.87	3.87	1.00	1279
18-24	1915	3.83	7.19	0.53	5246	10.49	7.50	1.40	3331
25-54	5831	11.66	15.85	0.74	16004	31.99	15.57	2.06	10173
55- 59	558	1.12	1.08	1.03	1015	2.03	1.11	1.83	457
60-64	471	0.94	0.82	1.15	818	1.64	0.88	1.86	
65-75	638	1.28	0.98	1.30	1138	2.28	1.08	2.11	
+76	340	0.68	0.32	2.12	451	0.90	0.38	2.37	
Total	16467	32.92	49.21	0.67	33571	67.11	50.75	1.32	15760

Table 6: Proportion of casualties—excess male mortality relative to women, excess mortality among older women relative to younger women. Male mortality then rises compared to female. Excess male mortality for combatants age 14-59 aligns with participation in the fighting of 15,760 people.

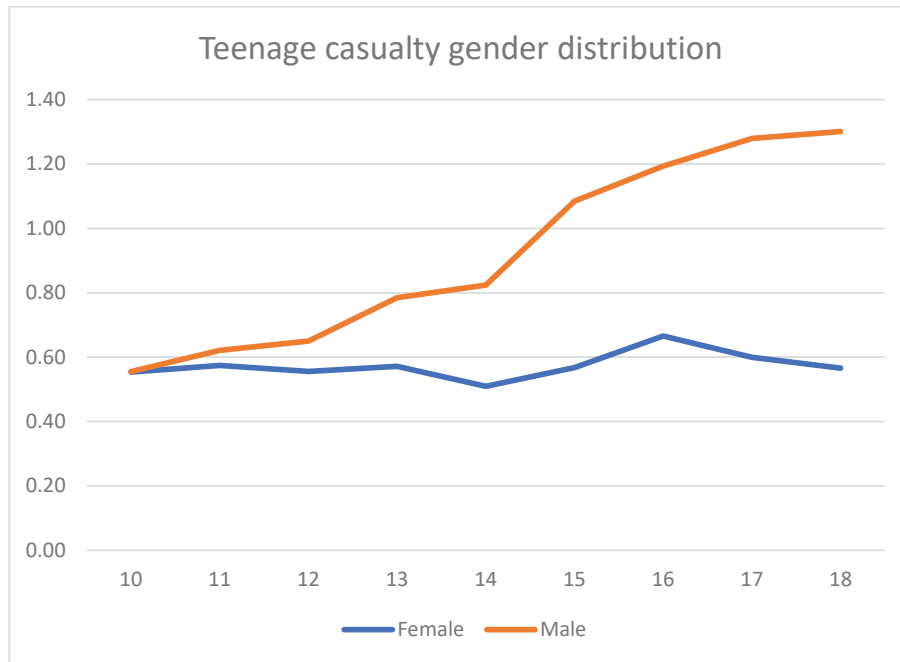


Figure 23: Significant gender disparity in casualties starting from age 11, accelerating at age 14 (the official minimum age for recruitment into Hamas).

K. Possible Manipulation Measures

As mentioned, the GMOH has not published data on non-violent mortality in Gaza during the war. In 2019 (before the COVID-19 pandemic and a year without fighting Israel), mortality reported by the Palestinian Central Bureau of Statistics in Gaza was 5,106 people out of 1.99 million.⁴⁶⁵ Therefore, the expected natural mortality for a population of 2.26 million in 2023 was 8,394 people between July 7, 2023 and March 21, 2025. This figure, even after subtracting the mortality of children under age 5 (about 971 children aged 0–4, adjusted for population size), amounts to approximately 7,422 people.

Including all or part of this natural mortality, or only the natural mortality of women (as appears to have been done during Operation Protective Edge in 2014), would be sufficient to significantly skew the gender and age distribution of casualties, thereby creating a misleading impression of indiscriminate strikes or even a targeted massacre. However, the most significant potential manipulation is not a false report but simply the non-reporting of combat casualties, as Hamas did in 2008 and 2014. In fact, given the trajectory of the fighting between the IDF and Hamas, many Hamas operatives were likely buried in tunnels or killed in airstrikes in zones where evacuation orders had been issued, or died in close combat with the IDF in the same areas. Their deaths would in any event not be recorded by the Gaza Ministry of Health without deliberate effort and dedicated resources.

We note that we have not identified any crude traces of data manipulation regarding child traumatic death, as we have for women. While we may speculate on conceivable methods by which such manipulation might have been achieved, we cannot in good faith present them in the absence of any evidence of their implementation. Having said that, there are two pieces of data that need to be taken into account when considering the reliability of GMOH numbers for children, let alone the possibility of a substantial undercount.

⁴⁶⁵ <https://www.pcbs.gov.ps/Downloads/book2604.pdf>

The first datum concerns reported age and gender distributions in this war compared to the 2014-2015 war. Women constitute a significantly smaller proportion of casualties in this war as compared to GMOH and PA reports from 2015, while children constitute a larger proportion. This is all the more striking as the Gazan population has aged in the intervening decade, and the proportion of children in the population has declined. We further note that while the proportion of women among the casualties reported in the 2015 war was sharply reduced in the B'Tselem 2016 survey of the war's casualties, the number of children was only slightly reduced (see section L). This may indicate that false reporting of the traumatic killing of children is harder to undertake, or that it is harder to uncover the falsification. Either way, we have no convincing explanation for the lack of correlation between female and child deaths between the two conflicts.

The second datum is that the number of children reported by the WHO⁴⁶⁶ and the GMOH to have been vaccinated for polio between November 2024 and February 2025 is 603,000 – well above the number of children under 10 in Gaza reported by the USCB (557,558)⁴⁶⁷ or the PCBS (591,714)⁴⁶⁸ for 2023. The absolute numbers in this age cohort held relatively steady between 2021 (557,260) and 2023 (557,558), according to the USCB, as the Gazan birth rate is declining.⁴⁶⁹ One hundred thousand Gazans are reported to have left Gaza up to the January 17 ceasefire, according to the PCBS⁴⁷⁰, representing around 22,000-24,000 children under 10 (assuming equal representation of children among those leaving). New births during that period should not have amounted to more than 15,000 individuals (who in any event would not be vaccinated in their first weeks of life) – whereas deaths of children aged 0-9, according to the GMOH data, amount to 8,229. We thus get a coverage considerably higher than 100%. Although there are several possible alternative explanations for this, including the unreported inclusion of children 10 and above in the vaccination program, the overreporting of vaccinations either for organizational prestige or to cover up aid diversion, or an underestimation by the PCBS of the actual Gazan population, these data would seem to cast into question reports of extensive child death in this war.

L. A speculative alternative estimate of the number of dead, gender/age ratio, and combatants/civilian ratio

In this sub-section, we will provide a speculative alternative estimate of the number and gender/age distribution of casualties in Gaza. This estimate aims to demonstrate the possible impact of Hamas data manipulation, which we consider plausible based on indications from GMOH reports and practices adopted by Hamas in previous rounds of fighting (see Chapter 7). Despite our reservations about the Gaza Ministry of Health data, we take its March 2025 figures as our starting point.

As of March 2025, the Gaza Ministry of Health reported 50,021 combat-related casualties. Of these, 44.5% were men aged 18-59, 16.6% were women aged 18-59, 4.7% were men aged 60+, 2.97% were women aged 60+, and 31.21% were minors under age 18 (see Table 7, Column 3 below).

. These figures differ significantly from those released at the beginning of the war, when the Ministry of Health claimed that 72% of casualties were women and children—a claim that continued to be echoed by

⁴⁶⁶ <https://www.who.int/news/item/19-02-2025-mass-polio-vaccination-campaign-to-continue-in-the-gaza-strip>

⁴⁶⁷ https://www.census.gov/data-tools/demo/idb/#/dashboard?dashboard_page=country&COUNTRY_YR_ANIM=2024&CCODE_SINGLE=XG&subnat_map_admin=ADM1&CCODE=XG&COUNTRY_YEAR=2024

⁴⁶⁸ <https://www.unicef.org/press-releases/second-round-polio-campaign-gaza-completed-amid-ongoing-conflict-and-attacks-unicef>

⁴⁶⁹ https://www.census.gov/data-tools/demo/idb/#/dashboard?dashboard_page=country&COUNTRY_YR_ANIM=2024&CCODE_SINGLE=XG&subnat_map_admin=ADM1&CCODE=XG&COUNTRY_YEAR=2024

⁴⁷⁰ <https://www.pcbs.gov.ps/post.aspx?lang=en&ItemID=5901>

UN and international media sources until November 2024. In reality, even according to the Gaza Ministry of Health reports as they stand, the ratio of male casualties aged 18-59 compared to females in the same age group is 2.7 to 1.

Starting from this baseline, we will assume some manipulation by the Gaza Ministry of Health and examine their impact on the overall picture:

1. For this speculative estimate, let us assume that the indications of data manipulation we observed in excess mortality linked to aging in the GMOH data suggest the inclusion of only older women (25+) and men 60+ who died from natural causes. If such presumed natural deaths are deducted, a slightly different picture emerges, where men aged 18-59 account for 49% of all casualties and older women account for only 14.13%. We emphasize that we do not exclude the entire expected natural mortality in Gaza (8,394 people) from the GMOH data, nor do we assume the inclusion of any natural deaths among children—only the excess age-related mortality linked to about 4,000 women over 25 and men over 60, as indicated by the GMOH’s own data.
2. Let us further assume an additional 2,000 Gazan civilians were killed by failed Hamas and Islamic Jihad rocket launches (including about 250 in Al-Ahli alone [according to the Gaza Ministry of Health, 461]), and that fatalities from these failed launches are gender- and age-distributed according to their proportion in the population. Deducting these fatalities leads to male casualties aged 18-59 constituting 50.1% of all casualties, while female casualties aged 18-59 account for only 13.7%. Excess adult male mortality in this case would be 15,893 people, adjusted to their proportion in the population, and excess teenaged casualties aged 14-17 would total 1,274 — meaning an excess male mortality of 39.3% of the total losses.
3. Finally, for this speculative estimate, suppose Hamas has not reported 7,000 combat losses, consistent with the excess 7,000 combat-age male “missing” population in Spagat and Shikaki’s family survey⁴⁷¹, GMOH claims of 7,000- 10,000 missing Gazans at various points in the war (of which some 887 were supposedly recovered from the rubble during the January- March ceasefire), and Gabriel’s Epstein’s assessment that “a large portion of unreported deaths are likely to be combatants who have died in unknown and difficult-to-access areas, and whose families are under extensive pressure from Hamas not to acknowledge militant losses”.⁴⁷² This is also consistent with Hamas’s concealment practices during Operation Protective Edge, where 25% of Israel’s identified militants and all infiltrators into Israel did not appear on the Gaza Ministry of Health’s lists. Given this assumption, excess male mortality would constitute 47.8% of total war casualties, resulting in an almost 1:1 ratio between excess combat age male mortality and female, child, and non-excess male casualties. The ratio of casualties between men aged 18-59 and women aged 18-59 is 1:4.8—higher than the ratio during Operation Cast Lead.

At this stage, we emphasize two points:

- a. **We do not claim that this ratio is a grounded assessment of the actual gender and age distribution of the casualties of the 2023-2025 Gaza War.** Instead, we demonstrate how relatively minor possible manipulations—consistent with indications from the Gaza Ministry of Health data itself and practices from previous wars—could significantly alter the resulting picture, even if it involves “planting” no more than 7,000 deaths from natural causes or Hamas actions, and omitting a comparable number of Hamas fighters from the casualty count. It is very possible that the number of natural deaths included in the Ministry of Health lists is much higher than the 4,200 we subtract (or lower), and

⁴⁷¹ <https://www.medrxiv.org/content/10.1101/2025.06.19.25329797v3>

⁴⁷² [PolicyNote158Epsteinv3.pdf](#) Pg 11

likewise, the number of uncounted fighters could be higher or lower. In any case, we merely illustrate the effects of potential manipulations.

b. Excess combat-age male mortality is not equivalent to combat casualties but represents an upper limit of possible combatant mortality. It cannot be generalized from data on previous conflicts (which are inherently uncertain) regarding the extent to which non-combatant men are more exposed to attacks than women and children—either due to their presence and activity outside safer shelters or due to misidentification by IDF forces. However, the IDF’s estimate of killing 20,000 enemy fighters as of November 2024 is significantly lower than the excess combat age male mortality in the speculative scenario we presented, and only slightly higher than that observed in the GMOH lists even without data manipulation assumptions. **Therefore, a ratio of two combatant deaths to three civilian deaths cannot be ruled out. This is a better ratio than that achieved in Mosul, or many other urban combat scenarios, and under more difficult conditions.**

	Number of casualties	Percentage	# After natural death deduction	Percentage	# After deducting rocket misfires	Percentage	# After addition of 7,000 unreported fighters	Percentage
Children aged 0 to 13	11704	23.4	11704	25.73	10963	25.2	10963	21.7
Teenage males 14 to 17	2594	5.19	2594	5.7	2490	5.7	2490	4.9
Teenage girls 14 to 17	1315	2.63	1315	2.89	1216	2.8	1216	2.4
Men 18 to 59	22265	44.51	22265	48.94	21782	50.1	28,782	57
Women 18–59	8304	16.6	6426	14.13	5943	13.7	5,943	11.8
Men 60+	2353	4.7	623	1.37	576	1.3	576	1.1
Women 60+	1486	2.97	564	1.24	522	1.2	522	1
Total	50021	100	45491	100	43491	100	50491	100

Table 7: Estimated gender and age distribution of casualties after accounting for potential data manipulation

1. We will conclude by noting that the data provided during the ceasefire by Zaher Al-Wahidi, spokesperson for the Hamas Ministry of Health, and reflected in the GMOH dashboard, offers additional indications of excess combat-age male mortality among the dead even higher than our speculative scenario. Thus, 32,152 children are reported to have lost their father – but only 4,417

are reported to have lost their mother in January 2025⁴⁷³. This is a ratio of 7.3 father for every mother. It suggests a much higher number of adult men killed than officially reported and somewhat higher than that of our speculative scenario. Notably, the GMOH bumped the number of children who had lost their mothers to 6,401 between February-June 2025, raising the number of children who had lost their fathers to only 34,100 (still a lopsided 5.2:1 ratio)⁴⁷⁴. By the 15th of July, however, the GMOH had reduced the number of motherless children to 4,988 (37,313 fatherless children)⁴⁷⁵. Additionally, the number of reported widows stands at 13,900 women, almost matching the official excess male mortality for ages 18-59 (13,964 – Table 6, left column, lines 4-6)⁴⁷⁶—striking, given that a large proportion of the male dead are young single men.⁴⁷⁷

2. Another significant data point is the ratio of patients who underwent limb amputation. While, according to the Ministry of Health, 4,500 Gazans underwent limb amputation, 800 of them are children (18% compared to 31% of reported dead), and 540 are women (12% compared to 19.6% of reported dead): a ratio of roughly 1:6 between men and women.⁴⁷⁸ The gap between the number of widows and reported male casualties, the unusual ratio of paternal to maternal orphans, and the dramatic gender disparity among amputees all strengthen the hypothesis that there is at least concealment or avoidance of reporting a significant number of casualties among Hamas fighters and other armed groups. We note that a recent study published by Gabriel Epstein from the Washington Institute in May 2025 also finds serious issues with the data from the Hamas Ministry of Health, due to reasons overlapping somewhat with those mentioned in this chapter.⁴⁷⁹

Finally, we note that the past can serve as a guide in assessing the relation between GMOH gender and age claims to reality. In the immediate aftermath of the 2014 Israel-Gaza war (revisited in Chapter 7), the GMOH claimed that “nearly half” of the casualties were women and children.⁴⁸⁰ OCHA, likewise emphasized child casualties (though not claiming the false “nearly half”) and insisted “at least” 77% of the dead were civilians.⁴⁸¹ Post war, however, GMOH reported that women (263) and children (578) made up only 39% of the casualties, compared to adult men (1202) who made up 56% of the casualties. The GMOH claimed, as late as December 2014, that 70% of all dead were civilians.⁴⁸² OCHA claimed 69% of all dead were definitely civilians, and 31% as combatants or unknown. In the report submitted to the UN by the Palestinian Authority Ministry of Health (based in Ramallah, distinct from the GMOH) in April 2015, based on updated GMOH data and the Palestinian Authority’s own medical and population registry information, the ministry claimed

⁴⁷³ [MOH Gaza Casualties Dashboard \(2025\) : Free Download, Borrow, and Streaming : Internet Archive](#); 1-22-25 page 4.

⁴⁷⁴ [MOH Gaza Casualties Dashboard \(2025\) : Free Download, Borrow, and Streaming : Internet Archive](#); 2-23-25 to 6-15-25 pg 4

⁴⁷⁵ [MOH Gaza Casualties Dashboard \(2025\) : Free Download, Borrow, and Streaming : Internet Archive](#); 7-15-25 page 4

⁴⁷⁶ <https://www.aa.com.tr/en/middle-east/over-38-000-palestinian-children-orphaned-by-israeli-war-on-gaza-official/3460181>

⁴⁷⁷ <https://www.aa.com.tr/en/middle-east/4-500-amputations-reported-in-gaza-amid-israeli-war-health-official/3447324>

⁴⁷⁸ <https://www.aa.com.tr/en/middle-east/4-500-amputations-reported-in-gaza-amid-israeli-war-health-official/3447324>

⁴⁷⁹ Gabriel Epstein, "Assessing the Gaza Death Toll After Eighteen Months of War", *Policy Notes* no.158 (May 2025), Washington Institute for Near East Policy, see especially pp.19-20. <https://www.washingtoninstitute.org/sites/default/files/pdf/PolicyNote158Epsteinv3.pdf>

⁴⁸⁰ <https://www.aa.com.tr/en/world/nearly-half-of-gaza-fatalities-women-children-ministry/142823>

⁴⁸¹ [chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.ochaopt.org/sites/default/files/ocha_opt_sit_rep_17_07_2014.pdf](https://www.ochaopt.org/sites/default/files/ocha_opt_sit_rep_17_07_2014.pdf)

⁴⁸² <https://english.alarabiya.net/News/2014/12/14/Hamas-flies-drone-over-Gaza-during-anniversary-parade->

an even higher number of 581 children (27%), 486 women (22.7%), and 102 elderly (4.8%), totaling 54.5% of the dead.⁴⁸³ And yet, when the Human rights organization B'Tselem concluded its name by name investigation of the casualties of the war nearly two years later, in June 2016, the number of women and children casualties shrank from 263 to 247, and 578 to 527 respectively, presumably due to false wartime reporting of and/or misattribution of natural cause death to combat. Likewise, in the interim two years, relatives of dead Islamic Jihad and Hamas combatants had publicized their deaths and organizational affiliation, leading B'Tselem to identify a larger number of adult men casualties, raising the number from 1202 to 1315. Of these, 20 were identified as killed by Hamas, 767 were identified as combatants and 43 were defined as unknown. Combatants therefore made up 59.5% of all adult males killed according to this investigation, rather than the 35% implied by GMOH and OCHA claims. Likewise, adult men made up 60% of all casualties, rather than the 56% claimed by the GMOH. Notably, combatants also made up 25% of the 16-17 year olds.

Furthermore, possibly due to B'Tselem's criteria for determining combatant statuses at least some of the 14 individuals classified as civilians in a previous Btselm report⁴⁸⁴ (Specifically, Muhammad Ibrahim Kaware, Ibrahim Mohammed Ahmad Hamad, Mahdi Mohammed Ahmad Hamad, Jalal Majed al-Batsh) remained listed as civilians despite information publically surfacing showing their clear affiliation as combatants.⁴⁸⁵ Others, however, were relocated to the Combatant ledger. This illustrative gap in intelligence and combatant designation perhaps explains why the Israeli Ministry of Foreign affairs insisted that combatants made up 44% of the casualties⁴⁸⁶

No quantitative extrapolation can, of course, be drawn from the past record of the GMOH and other supposadely authoritative sources in inflating women and children casualties while concealing the deaths of Hamas combatants. However, it can be inferred that such a tendency has consistently been displayed by the GMOH and Hamas, that it has gone unchallenged by the UN, and that even when revealed this does not cause reassessment of source reliability.

	GMOH August 2014	B'Tselem 2016	Gap	MFA
Adult Women	263	247	-16 (6.4%)	
Children	578	527	-51 (8.8%)	
Elderly	102	112	10	
Men (18-59)	1202	1317	+115 (9.56%)	
Combatants	30%	35.6%	+ 5.6%	44%

Table 8: comparison of pre and post war gender and age distribution and combatant/civilian assessment of the 2014-2015 Gaza war.

⁴⁸³ State of Palestine, Ministry of Health, "Health Conditions in the Occupied Palestinian Territory", 68th World Health Assembly, 15.5.2015, Annex. <https://www.un.org/unispal/document/auto-insert-201329/>

⁴⁸⁴ https://www.btselem.org/gaza_strip/201407_families

⁴⁸⁵ http://www.terrorism-info.org.il/Data/articles/Art_20687/E_124_14B_472268844.pdf

⁴⁸⁶ <https://www.gov.il/en/pages/the-2014-gaza-conflict-factual-and-legal-aspects-full-report-15-may-2015>

M. GMOH undercount?

From the moment the UN began disregarding GMOH data supplemented by “reliable media reports” and excluded casualty figures unsupported by IDs and names, a growing number of voices began claiming that the GMOH casualty figures represented a significant undercount of the actual casualties. Of them, the most serious was Michael Spagat, author of several studies assessing mortality in the Kosovo War and Iraq War. Notably, Spagat has previously debunked the overcount of methodologically flawed family surveys in Iraq, which grotesquely over-assessed overall mortality⁴⁸⁷ (see Appendix 7), just as he has done for the more egregious overestimations of Gazan war casualties⁴⁸⁸. He has also criticized deteriorating GMOH reporting standards between November 2023 and April 2024.⁴⁸⁹ Unlike other GMOH undercount proponents, Spagat carried out an empirical study – specifically, a family survey.

The study's methodology relied on sending 10 teams of Gazan employees of Khalil Shikaki's Ramallah-based Palestinian Center for Policy and Survey Research (PCPSR) to approach Palestinians in designated quadrants of the study zone. The area was centered on Israel's self-proclaimed humanitarian zone, and thus displaced households were overrepresented in the study. To oversimplify, each team was tasked with asking 10 Gazans to fill out a survey in which they **first** enumerated all household members physically living with them **on October 6** (to prevent overreporting of extended family members who died in the conflict) and only **then** define their status (alive, dead by nonviolent means, accident or violence, prisoner, or missing). Again to oversimplify, their responses were then extrapolated to the entire Gazan population. “Raking”, a statistical tool used to fit the study sample with the general population, was used to adjust the results based on the relative weight of various representative demographics.

Based on this extrapolation, Spagat and Shikaki concluded that GMOH was indeed undercounting Gazan casualties. They assessed 75,200 violent deaths as the central count for Gaza War casualties.⁴⁹⁰ This compares with 50,021 dead reported by the GMOH before the resumption of hostilities at the conclusion of the January-March 2025 ceasefire (although Spagat compares this to the January list; presumably those added between January and March do not represent new deaths but new identifications).

Due diligence requires us to note that we have directly communicated with Prof. Spagat concerning the methodology and results of his study, and he has answered our questions candidly. Time constraints have prevented us from continuing the dialogue and raising some of the points noted in this subsection, specifically those raised by Mark Zloch⁴⁹¹ and Sergio Della Pergola⁴⁹² – however, as he has responded to both those analysts and to other critics publicly⁴⁹³, we will limit ourselves to highlighting those methodological issues we consider most significant, even if they are not the ones most frequently raised or addressed by either side.

- First, and most glaringly, Della Pergola notes that the number of prisoners reported by the survey respondents massively overrepresents the number of Gazan prisoners known to be held by Israel at

⁴⁸⁷ <https://www.iraqbodycount.org/analysis/beyond/exaggerated-orb/>;
<https://journals.sagepub.com/doi/10.1177/2053168017732642>; <https://ojs.ub.uni-konstanz.de/srm/article/view/2373/3973>

⁴⁸⁸ <https://aoav.org.uk/2024/a-critical-analysis-of-the-lancets-letter-counting-the-dead-in-gaza-difficult-but-essential-professor-mike-spagat-reviews-the-claim-the-total-gaza-death-toll-may-reach-upwards-of-186000/>

⁴⁸⁹ <https://aoav.org.uk/2024/analysis-of-new-death-data-from-gazas-health-ministry-reveals-several-concerns/>

⁴⁹⁰ <https://www.medrxiv.org/content/10.1101/2025.06.19.25329797v4.full-text>

⁴⁹¹ <https://x.com/MarkZloch/status/1946626275361128578>

⁴⁹² <https://www.haaretz.com/opinion/2025-07-06/ty-article-opinion/.premium/no-100-000-people-havent-died-in-gaza/00000197-df88-d78d-a39f-dfd47470000>

⁴⁹³ https://x.com/Michael_Spagat/status/1945435665505693843

the time. Specifically, Spagat's survey shows 52 of the 9,729 individuals mapped in the surveyed households in the study to be **in prison** at the time of the study.

The questionnaire asks the following question (HR05, supplementary material):

Please provide information on each household member you lived with on October 6, 2023. I will also ask about each person's present situation. Start with yourself.

HR05: "Is still living in the household, or has he/she moved, died, or is missing:

1. *Still resident*
2. *Left Gaza*
3. *Moved within Gaza*
4. *Dead*
5. *Missing*
6. *Imprisoned"*

We verified that the Arabic version of the questionnaire, immediately provided to us upon request by Spagat, is just as clear and unambiguous and is phrased in the **present** tense.

Spagat extrapolates the 52 prisoners in the mapped study population to 9,400 prisoners for the Gazan population as a whole, based on his raking procedure. And yet, according to B'Tselem, Israel was holding 2,216 Gazans on security grounds and three more for illegal entry at the end of December 2024.⁴⁹⁴ There is no way to square this datum with a representative sample of the population. Spagat explains this discrepancy by noting that "*some respondents may have misinterpreted our question as to whether a household member was at some point imprisoned.*"

While it is always possible for **some** individuals to misinterpret any question, no matter how clear and unambiguous, two points should be noted. First, for an extrapolation of 9,400 prisoners to be even remotely plausible, every respondent would have had to interpret the question in this manner, for this number may be higher than the number of Gazans imprisoned throughout the war (imprisonment of Gazans since the 2006 disengagement plan until the outbreak of the current war has been minimal). Second, such a widespread misinterpretation of the core question should have been detected by the interviewers and study supervisors. Their failure to do so lends further weight to Zlochin's critique of the study, which we will address in the next point.

- Second, Della Pergola correctly points out that the household size in the study is considerably smaller than that identified by the PCBS (4.5 rather than 5.3). Likewise, we note that the proportion of children in the study sample is much smaller than that indicated by any demographic database of Gaza (37% rather than 47% according to USCB, though Spagat's research seemed to add new births without subtracting aging, bringing their reference demographics up to 49%). In and of itself, this would be cause for concern for the representativeness of the study, but we take Spagat at his word that raking would minimize such issues.

The problem stems from what Della Pergola identifies as the most likely cause of smaller household sizes: the fragmentation of extended families due to displacement. Some families would map out only those relatives **still** living with them, while also appropriating the deaths of relatives no longer residing with them. As a result, reported deaths (and other status indicators) may be inflated, with multiple households independently reporting the same loss. Of course, as Spagat correctly points out, survey participants were required to enumerate the household members they were living with on **October 6, 2023**⁴⁹⁵. This requirement is very clearly phrased in the questionnaire:

⁴⁹⁴ https://www.btselem.org/statistics/detainees_and_prisoners

⁴⁹⁵ We note that Spagat does allow for the possibility of different fractions of the same split household being surveyed, thus "double reporting" deaths in the household, but claims that

“Please provide information on each household member you lived with on October 6, 2023. I will also ask about each person’s present situation. Start with yourself.”

This question is very clearly phrased, and the requirement of noting whether the household member is **still** living in the household or missing or imprisoned is explicit. It seems unlikely that either question would be universally misunderstood. And yet, the empirical study data indicate that somehow **both** questions **were** misunderstood.

We simply see no alternative explanation for the peak mortality associated with households of 3 and 4 individuals (7.1% and 4.7%, respectively) and the weak but significant negative correlation between violent mortality/person to household size we observed (-0.11, if 1- and 2-sized households are excluded – as they should be, since a strike that results in a single death would leave no one to participate in the survey).

Furthermore, when Gaza 3 data, whose average household size is particularly small (3.1) with 3-4 sized households representing 70% of its samples, is excluded from the study, the mortality extrapolation drops by 5,000, according to an analysis performed by Mark Zlochin utilizing the R script provided by Spagat et al. Gaza 9, whose exclusion from the study resulted in an 11,000 mortality extrapolation reduction, also had a smaller average household size, with a high proportion (58.5%) of households with 3 or 4 members. This may offer a partial explanation of the outlying results of these teams, though as we address in the next subsections, there are other explanations. We note that Spagat’s raking procedure did decrease the weight of smaller households, and that absent this procedure the extrapolated mortality would have been 5,000 higher. We are suspending judgment, for the moment, on whether this procedure was sufficient to correct the pattern we observe. We will include such analysis in the forthcoming Appendix 7 to this study, and should the issue prove irrelevant, we will highlight that conclusion.

- Third, Mark Zlochin has reviewed geolocation issues of the surveyors. Without getting into the technical details of the somewhat acrimonious debate that followed⁴⁹⁶, Zlochin essentially claims that surveyors extensively strayed outside their designated enumeration areas and did not enter homes and tents to carry out the surveys as described in the paper but performed many of them on street corners and thoroughfares. We note that Spagat has both disputed Zlochin’s ability to distinguish exact or approximate positioning of survey teams on the basis of GPS data he provided and defended streetside interviews as legitimate and necessary, given Gazan conditions. Spagat has also insisted that repeat visits to the same enumeration areas represented, in some cases, deliberate rechecks of possibly invalid interviews performed by one team.

We also note that the inclusion of geolocation data should not be taken for granted and represents considerable added value to the study that we have not seen in family surveys performed elsewhere.

surveys of both fractions of the split household would be rare. While we suspect they were in fact more common, given the tendency of displaced extended households to set up in the same camps and the slack, convenience-oriented sampling practices identified in the next section (effectively allowing for one sample participant to call on relations and friends to participate), our understanding is that this outcome would not actually be prejudicial to the survey **if** both fractions mapped out all pre-October 6 household members as the questionnaire required. The acrimonious exchange in this regard seems to be off-tangent.

⁴⁹⁶

<https://substack.com/home/post/p-168456484>;
<https://x.com/MarkZlochin/status/1946626254930882637>

Presumably this is based on PCPSR remote survey practices, to which we will refer in our final point. Finally, we note that we have not yet performed a comprehensive and independent analysis of the geolocation issues raised (to follow in Appendix 7). Nonetheless, we find Zlochín's arguments in this regard persuasive and provisionally accept his conclusions regarding actual (as opposed to declared) study practices without necessarily accepting his deeper critique of non-transparency or the extent of deviations from randomized home-based interviews in dedicated enumeration areas.

In one specific instance, the same enumeration area was, according to Zlochín's analysis of Spagat's raw data, sampled three times in the same day by two different teams, one of which was Gaza 9⁴⁹⁷. Gaza 9's survey amounted to 25% of reported mortality (that is, four times the average surveyor). It was nonetheless not excluded from the main model of the survey.

Spagat justified this inclusion on the grounds that two camps Gaza 9 was assigned to sample proved to be dedicated camps for families who had lost members, while others housed refugees from areas that had suffered heavy attacks. However, in this overlapping sample, Gaza 9 recorded 7/10 households with losses in the family in one pass and 3/10 in the second. Gaza 5 recorded none. This stretches the bounds of statistical variation and would seem to indicate that it was the conduct of Gaza 9 that was the cause of the high mortality reporting of those it surveyed, not its supposedly randomly selected survey participants. At the very least, this datum should support its exclusion from the main model. The larger issue, however, is not the conduct of any one team but the rigor of the entire study. This relates to our next point.

- Spagat has allowed, in the context of Gaza 9's outlying results, for the possibility of surveyors being biased towards selecting families who have suffered higher mortality. Such concerns are all the more pertinent given the local origin of the surveyors and their supervisors. They are not objective, external observers but part and parcel of the social, political and kinship fabric of the Gazan participants they survey. If they are representative of the general Gazan population, they have presumably themselves been displaced multiple times and have suffered losses in their own families. We also note the possibility that even in the absence of such bias by surveyors, surveyed families might seek to call upon neighbors, friends or relatives they know to have suffered losses. Spagat notes the steps the study undertook to minimize such an outcome: they include strict enumeration areas, stipulating that interviews be carried out in homes or tents where interference or self-recruitment by non-participants would be minimized (our interpretation); and assigning randomized, predetermined tents and homes to be surveyed within each enumeration area. Also in line with PCPSR practices, the surveyors were supposedly closely monitored via geolocation and immediate transmission of completed interviews.

However, as the previous section detailed, there is evidence for significant deviation from these excellent practices and for non-termination and non-exclusion of interviews that deviated from them. Furthermore, Spagat insists these deviations were justified by conditions on the ground. While this may well be true, it merely highlights the problem inherent in relying on the findings of family surveys conducted in active combat areas – particularly on remotely supervised surveys that are entirely reliant on local surveyors. This would be true even in the absence of any suspicion of deliberate and coordinated data manipulation in the *sui generis* environment of Gaza – the topic of our next point.

- Shikaki and the PCPSR are widely regarded as the preeminent Palestinian polling organization. However, in August 2024, the IDF released documents it claims to have captured from Hamas that allege interference in the operation of Shikaki's Gazan polling teams in which data was manipulated so as to create the impression of greater support for Hamas and for the October 7

⁴⁹⁷ <https://x.com/MarkZlochín/status/1944114333790736828>

attack.⁴⁹⁸ Shikaki's public response was to express confidence in his Gazan teams⁴⁹⁹ while disavowing any knowledge of interference in his polls or ability to rule out such interference. While Shikaki announced a transition to entirely electronic recording of his polls in Gaza following this incident (it was in any case the primary tool used prior to the incident), he did not announce any change to his personnel or vetting protocols for new or old personnel. He furthermore insisted that the uncovered documents, while presumably genuine, represented an attempt to scam Hamas for funds for a data manipulation operation that was never implemented. Nonetheless, the next polls taken by him in September 2024 resulted in radically different results compared to earlier polls.⁵⁰⁰ Indeed, those results seem to align with the unaltered positions expressed in the captured Hamas documents.

We note that we queried Spagat concerning counter data manipulation procedures in this survey. His response was that such measures consisted of geolocated tracking and immediate sharing of interview results with supervisors (also Gazan). Notably, there were no vetting mechanisms to exclude surveyors with family, social, organizational or financial ties to Hamas. Nor were the participants required to sign an NDA concerning their knowledge of the intended study.

We wish to reiterate that the precautions that were undertaken by Spagat and Shikaki exceed the norms with which we are familiar for this type of survey, though their application seems to have been uneven. PCPSR safeguards seemed primarily designed to prevent input of falsified or fabricated interview results, and in that they were probably effective. Regardless, they are insufficient. Hamas has a long history of infiltrating operatives and sympathizers into the employee pool of influential organizations in the Gaza Strip, as well as suborning through intimidation and bribery of veteran employees. Had Hamas been able to achieve this in regard to PCPSR personnel, and there are strong indications it has done so in the past, it would have been able to deploy a wide variety of data manipulation methods.

The simplest manner of manipulation, particularly if Hamas knew where the surveyors (or some of them) were headed, would have been to either ensure they met with families who had suffered losses or convince whatever family they met (according to pre-randomized lists of tents) to provide false information. Nothing in the study as structured, even if randomized tent visits had been correctly implemented, would have uncovered this manipulation. Although such manipulation, if unevenly applied, may have left traces, the high tolerance of the study to "noise" and outliers such as Gaza 9 means such traces would be unlikely to be uncovered. Should we uncover such traces in future in-depth delving into Spagat's data, we shall include it in Appendix 7. We will likewise report any failure to uncover such traces.

- Finally, the primary problems faced by the study are the ethical constraint of safeguarding survey participant anonymity and the financial strictures under which non-state academic research operates. Ideally, this study would have found some way to compare the IDs of the participants with GMOH records while preserving their anonymity.

Alternatively or in addition, a parallel study could have been performed in which informed consent for the open sharing of respondent details would have been required for inclusion. While this would not have resolved the issues we outlined above, it would have enabled direct rather than inferred assessment of GMOH overcounting or undercounting. Both these models, however, would have encountered extremely high hurdles in terms of institutional ethics committee approval. The second

⁴⁹⁸ [Ilege interference in the operation of Shkaki's Gazan polling teams](#)

⁴⁹⁹ [to express confidence in his Gazan teams](#)

⁵⁰⁰ [next polls](#)

would have also incurred heavy financial costs (as many potential respondents would have refused informed consent, meaning longer survey time) and would risk other types of bias and data manipulation.

While it is **possible** to overcome ethics committee opposition with patience and sufficiently rigorous data compartmentalization protocols, it was probably not possible to do so in time to be relevant to reporting on the consequences of the war, and promoting its termination, in real time. We cautiously suggest that entirely understandable motivation played a role in the study design – and in its inescapable shortcomings. **Having said that, we do note that in the event that survey participant honesty is assumed, it would have been a relatively simple procedure, and one free of ethical risk, to include an inquiry in the questionnaire on whether family members who had died violently had been reported to the GMOH, and how.** In the event the survey participant did not know, it would have been possible to do a follow-up with the head of the household. Regardless, it would have been possible to compare the number of those who affirmed reporting deaths to the GMOH and those who did not. This would have provided an additional means of assessing the primary research question of the study.

In conclusion, we wish to state the following: family surveys in general have a spotty track record, even under conditions far less problematic than Gaza. Indeed, this is a problem Spagat has addressed and sought to rectify over the past 15 years or more (see Appendix 6), while remaining committed to the potential of this research tool and of independent assessment of wartime casualties more generally. In Gaza, under extremely difficult conditions, he carried out what was probably the best remotely supervised family survey possible (with the exception of our criticism on querying respondents concerning GMOH reporting), utilizing precautions far exceeding the norm. That the implementation of these precautions seems to have been imperfect is not a defect of the study – it is a feature, quite possibly unavoidable under wartime Gazan conditions. The best is simply not good enough.

Specifically, it is not good enough to proof the study against deliberate infiltration and data coordination. Nor, even in the absence of such manipulation, is it good enough to make a certain determination of the central issue of the study – whether the GMOH is undercounting or overcounting Gazan casualties. Provisionally, we must declare that the uncertainty of the survey is simply too high, and that it leaves too many questions (prisoners, Gaza 9 and Gaza 3 outliers, household size) in the air.

More cautiously, we suggest that the lesson to be taken from this study is that family survey tools, even at their best, are not sufficiently useful, and too subject to errors and manipulation, to be useful as **real-time** guides to wartime casualties. Their proper utility, as we will discuss in Appendix 5, lies in retroactive understanding of conflicts, not in being relevant during the conflict itself.

For the record, our provisional conclusion is that up to March 2025, the GMOH was deliberately engaged in both practices—undercounting combatant casualties and, in a **quantitatively** minor but **qualitatively** significant way, overcounting non-traumatic, age-related deaths. That said, these efforts appear less heavy-handed than those observed through May 2024.

We do believe that opportunities for data manipulation have been limited, though not completely eliminated, by pressure to provide IDs for claimed casualties from April 2024 onwards. Hence, like Gabriel Epstein, we do not believe the total number of casualties enumerated by the GMOH is significantly higher, or significantly lower, than reality.⁵⁰¹ Where we do think it diverges from reality, to a limited but significant extent, as in previous wars, is in the gender and age distribution of the violence associated casualties. This

⁵⁰¹ <https://www.medrxiv.org/content/10.1101/2025.06.19.25329797v3>

is the most likely explanation for the relatively small addition to these lists during the January – March ceasefire - those who remain unincorporated in them are probably primarily Hamas combatants.

Finally, it is necessary to refer to incentives and capabilities. For Gazan civilians, there is every incentive to report the death of kin. Under prewar conditions, the families of martyrs received financial stipends and support from both the PA and the Hamas Da'wa system. As Spagat's study documents, under wartime conditions such families also received preferential access to dedicated shelters. There are other benefits, both material and social, and official recognition of wartime loss. Under the harsh conditions of wartime Gaza, securing such benefits is not a matter of greed but of surviving under tolerable conditions.

The GMOH has demonstrated over at least the first six months a willingness to engage in outright data falsification in order to inflate the proportion of women and children casualties and mobilize the international community to take action to end the war. One need not infer a greater willingness to lie to (Hamas-appointed and approved) GMOH officials than the human norm—only a very understandable priority to end the fighting that is inflicting unprecedented devastation and death on their nation, neighbors, families and selves. Given the demonstrated willingness of the GMOH to engage in data **falsification**, it beggars belief that it would not engage in honest data **acquisition** that would support its messaging without undermining its credibility. Nor would it be necessary to survey every Gazan to uncover missing casualties. A GMOH-sanctioned, fully randomized and comprehensive family survey, free of the ethical constraints of anonymity, possibly utilizing international intermediaries to boost credibility, would have served the political aims of the GMOH and Hamas very well – if they believed it would uncover unreported mortality without uncovering data Hamas preferred to keep concealed.

All this is not to say that no **unintentional** undercount of casualties exists in the GMOH lists. It is likely that Gazan casualties in the hundreds to low thousands have gone, for now, unrecorded. But if the undercount were in the tens of thousands, the GMOH would have means, motive and opportunity to uncover them through non-anonymized sampling.

Summary

To conclude this chapter about the reliability of GMOH data, it is necessary to once again note the impact of the "certainty mirage"—the belief that if a single source carries out a certain task, such as counting casualties, that source is necessarily reliable. In reality, there is no logical connection between the two. Historians have long pointed out that single sources surviving from certain historical eras sometimes distort the facts for ideological reasons, and that researchers of that era must accept some degree of uncertainty. Would any Second Temple period scholar dare to claim that we must accept all of Josephus Flavius' statements, or ignore his biases, simply because he is the only source we have for events that took place in that period?

In the preceding chapter, we went beyond exposing the data manipulations of the Hamas-controlled Gaza Ministry of Health. We also offered a provisional—admittedly speculative—assessment of the distribution and scale of casualties, as well as a thorough assessment of Spagat and Shikaki's claim that the GMOH was actually undercounting the war casualties. Unfortunately, the precise number and breakdown of those killed in the current Gaza conflict will likely remain unknown until long after the fighting ends—if they become known at all. Some questions, regrettably, may never receive definitive answers.

Chapter Six: The Question of Iraq and the Humanitarian Bias

Summary

In the context of the Gaza War, UN agencies, humanitarian relief organizations and human rights organizations have often been portrayed as neutral and impartial. This leads to their presentation as reliable sources of information, in contrast to the biased reports coming from the warring parties. As we have seen in previous chapters, this perception clashes with reality regarding humanitarian provisions during and prior to the war, aid diversion, and traumatic casualty assessments. However, as we will demonstrate in this chapter, both the assumption of reliability and its failure are more universal and in no way limited to the current Israel-Hamas War.

Unlike well-resourced intelligence agencies capable of deploying agents and obtaining information from closed societies and hostile organizations, human rights organizations—even the most serious and trustworthy—mainly rely on individual testimonies, public data, and cooperation with local authorities. The underlying assumption is that, despite these limitations, their freedom of movement, as well as their protected international status, allows them to identify crimes and humanitarian crises accurately and reliably. Another assumption is that eyewitnesses among the civilian population, especially professionals such as doctors, journalists, and academics, are trustworthy and free from political interests.

However, the last three decades in the Middle East have repeatedly demonstrated that this view leads to serious failures in identifying humanitarian crises, assessing the ratio between civilians and combatants in armed conflicts, and detecting war crimes. Moreover, even when serious errors are revealed, these organizations do not learn from them or change their problematic research methodologies.

In the following chapter, we will focus on UN agencies and human rights organizations while analyzing the Iraqi case. We will see how, in 1995, UN researchers, in cooperation with Iraqi officials, identified a supposed excess in infant mortality. Their claim that half a million infants died as a result of the sanctions regime was accepted by human rights organizations and major media outlets, leading to international pressure to ease sanctions.

In reality, the loosening of the sanction's regime allowed Saddam Hussein to strengthen his army, reinforce his regime, and bolster his population repression mechanisms. In 1997, when the researcher who conducted the initial study returned to Iraq and carried out an independent investigation, it was revealed that the evidence previously provided was false and biased. However, though she published a retraction, it was read by far fewer people than the original study, had no public impact, and was ignored by the UN and the humanitarian and human rights community.

Instead, a new UNICEF survey was conducted, relying on Iraqi Ministry of Health data, that "confirmed" the original claims. Following the fall of the Saddam regime it became clear that infant mortality had not increased at all, whereas the Oil for Food Program was revealed to be riddled with corruption at the highest levels of the UN, acting as a mechanism for aid diversion. Despite the clarity of the evidence, UN agencies and human rights organizations refrained from publicly acknowledging it or examining the lessons to be learned.

The methodological implications for the Gaza case are significant. We argue that it is misguided to regard UN organizations as inherently 'objective' or reliable sources of mortality data in conflict zones—at least not without rigorous verification and critical scrutiny of their sources. We further

contend that unless these organizations are willing to publicly acknowledge past errors and conduct transparent investigations into their causes, their credibility will continue to be in doubt.

A. Iraq Under Saddam Hussein and the Sanctions Regime

In August 1990, the UN Security Council adopted Resolution 661, which prohibited all UN member states from conducting trade with Iraq in any form, except for "payments exclusively for strictly medical or humanitarian purposes and, in humanitarian circumstances, foodstuffs."⁵⁰² This resolution remained in effect until Iraq's surrender in April 1991. Only then was the ban on food imports lifted, but all other sanctions remained in place, and their removal was conditioned on Iraq's dismantling of its weapons of mass destruction programs, its missile programs, cessation of support for terrorism, border delineation with Kuwait, and other issues.⁵⁰³

Most of these issues remained unresolved, preventing the lifting of trade restrictions with Iraq. In an effort to allow Iraq to purchase food using revenues from oil sales without lifting the sanctions regime, the UN spent over five years negotiating with the Iraqi government to establish a mechanism that would prevent it from accessing foreign currency—resources that could be diverted for military purposes or to sustain its authoritarian rule. Saddam's regime, on the other hand, refused to comply with any mechanism that would prevent it from using oil revenues for its own purposes, primarily regime survival.

In subsequent years, alarming reports increasingly circulated about severe suffering in Iraq, with a particular focus on rising infant mortality rates. The Iraqi Ministry of Health, which, before the Gulf War, was considered the most advanced in the Arab world, having achieved universal health coverage in the 1970s and providing medical treatment and training to patients and students from across the region, repeatedly published reports of an escalating humanitarian disaster. By 2003, one of its leading doctors, a reputable professional named Dr. Nasheit, reported that infant mortality rates had increased from 28 per 1,000 to 107 per 1,000, leading to the deaths of 1,673,942 Iraqi children between 1990 and 2003.⁵⁰⁴ This claim gained widespread traction in leading medical journals.⁵⁰⁵

B. UN Studies on Excess Infant Mortality in Iraq

Even before the publication of these alarming findings, international concerns about the humanitarian situation in Iraq were growing. In 1996, CBS broadcast an interview with US Secretary of State Madeleine Albright, hosted by journalist Leslie Stahl. Stahl stated that half a million Iraqi children had already died as a result of sanctions. She even compared Iraqi civilian losses from sanctions to the destruction caused in Hiroshima by the atomic bomb:

Stahl: We have heard that a half million children have died. I mean, that's more children than died in Hiroshima. And, you know, is the price worth it?

⁵⁰² United Nations Digital Library, Resolution 661 (1990) / adopted by the Security Council at its 2933rd meeting, on 6 August 1990. <https://digitallibrary.un.org/record/94221?ln=en&v=pdf>

⁵⁰³ United Nations Digital Library, Resolution 687 (1991) / adopted by the Security Council at its 2981st meeting, on 3 April 1991. <https://digitallibrary.un.org/record/110709?ln=en&v=pdf>

⁵⁰⁴ Nasheit NA. Perinatal and neonatal mortality and morbidity in Iraq. *J Matern Fetal Neonatal Med.* 2003 Jan;13(1):64-7. doi: 10.1080/jmf.13.1.64.67. PMID: 12710860.

⁵⁰⁵ Dobson R. Perinatal mortality in Iraq more than tripled since sanctions. *BMJ.* 2003 Mar 8;326(7388):520

*Albright: I think this is a very hard choice, but the price – we think the price is worth it*⁵⁰⁶

This claim was based on a survey by the UN Food and Agriculture Organization (FAO) concerning infant mortality in Baghdad, conducted in cooperation with the Iraqi Ministry of Agriculture and the Nutrition Research Institute (NRI). It is important to note that the survey interviewers were recruited directly by the Iraqi Ministry of Health. The survey findings indicated a fivefold increase in infant mortality rates: a dramatic jump from 40.6 per 1,000 live births between August 1985 and July 1990 to 198.2 per 1,000 live births between August 1990 and August 1995.

The researchers, Zaidi and Fawzi, applied the infant mortality rate found in the survey to the entire Iraqi population, fully attributing the rise in infant deaths to the economic sanctions. They arrived at a figure of 576,000 excess child deaths.⁵⁰⁷ Although other researchers questioned this sweeping extrapolation, Zaidi and Fawzi's version received broader dissemination and influence than that of their critics.⁵⁰⁸

The mounting public controversy over the survey's findings—reflected in part through Stahl's interview—played a central role in increasing pressure on the UN. This ultimately led to an agreement that allowed the implementation of the Oil-for-Food program under terms acceptable to the Iraqi government. The final Memorandum of Understanding, signed in May 1996, not only allowed Iraq to keep one-third of its oil export revenues instead of dedicating it for humanitarian needs, but also proved vulnerable to exploitation and corruption by Iraqi actors and UN officials, including the son of then-UN Secretary-General Kofi Annan. Ultimately, Saddam Hussein's regime gained over \$11 billion beyond the officially allocated amount through illegal oil smuggling that leveraged the Oil-for-Food program. The regime accumulated a further \$1.7 billion through secret commissions and bribes paid by more than half the participating companies.⁵⁰⁹

Despite the increasing flow of food, consumer goods, and infrastructure projects into Iraq (per capita GDP recovered from a low of \$241 in 1995 to \$1,006 in 2000—close to pre-war levels of \$1,371), the Iraqi Ministry of Health continued to report rising infant mortality rates that were in turn uncritically cited by humanitarian aid organizations.⁵¹⁰ The World Food Program (WFP) determined that the aid delivered under the program was insufficient to meet the population's needs as early as 2002.⁵¹¹ Pictures of small children's bodies, allegedly victims of malnutrition, filled major media screens worldwide, fueling growing calls for the unconditional abolition of the sanctions regime.⁵¹²

In 1998, the UN Humanitarian Coordinator in Baghdad resigned after 34 years of service, declaring that he did not want to run a program that amounted to **genocide**⁵¹³ (emphasis added). These concerns culminated in 1999, when UNICEF, in cooperation with the Iraqi government, conducted a comprehensive demographic

⁵⁰⁶ <https://www.newsweek.com/watch-madeleine-albright-saying-iraqi-kids-deaths-worth-it-resurfaces-1691193>

⁵⁰⁷ Zaidi S, Fawzi MC. Health of Baghdad's children. *Lancet*. 1995 Dec 2;346(8988):1485. doi: 10.1016/s0140-6736(95)92499-x. PMID: 7491002; <https://www.nytimes.com/1995/12/01/world/iraq-sanctions-kill-children-un-reports.html>; <https://rss.onlinelibrary.wiley.com/doi/pdf/10.1111/j.1740-9713.2010.00437.x>

⁵⁰⁸ Carine Ronsmans, Oona Campbell, Mary C Smith Fawzi, Sarah Zaidi, David H. Spodick, Omar A. Obeid, Abdul-Hussein Al-Hadi, Milton Leitenberg, Susumu Wakai, Sanctions against Iraq, *The Lancet*, Volume 347, Issue 8995, 1996, Pages 198-200, ISSN 0140-6736, [https://doi.org/10.1016/S0140-6736\(96\)90384-0](https://doi.org/10.1016/S0140-6736(96)90384-0).

⁵⁰⁹ <https://www.cfr.org/backgrounder/impact-un-oil-food-scandal>

⁵¹⁰ <https://reliefweb.int/report/iraq/morbidity-and-mortality-among-iraqi-children-1990-through-1998-assessing-impact-gulf-war>; <http://www.reliefweb.int/library/documents/iraqnutrition.pdf>

⁵¹¹ <http://www.cam.ac.uk/societies/casi/info/undocs/wfpnc0111.pdf>, <https://www.fao.org/4/J0465e/J0465e00.htm#33>

⁵¹² <https://www.theguardian.com/theguardian/2000/mar/04/weekend7.weekend9>

⁵¹³ <https://news.cornell.edu/stories/1999/09/former-un-official-says-sanctions-against-iraq-amount-genocide>

survey. Its results indicated that infant mortality rates were significantly lower than those recorded in the 1995 survey or in the Iraqi Ministry of Health data. However, it was found that the mortality rate among children under five had spiked sharply between 1990 and 1991, reaching twice the pre-war level (from 60 to 120 per 1,000 live births) and continued to rise afterwards, even after the implementation of the Oil-for-Food program in 1996. According to the survey, this trend led to the deaths of approximately 400,000-500,000 Iraqi children under five.⁵¹⁴

C. Early Indications of Data Falsification

When Sarah Zaidi—one of the original authors of the FAO study—conducted follow-up surveys and interviews in 1996 and 1997, she discovered that “Sixty-five cases of deaths recorded in 1995 were not reported in 1996, and nine cases recorded in 1996 were not reported in 1995”. Interviews with 26 women, conducted in 1995 and again in 1997, revealed that “nine child death cases documented in 1995 but not in 1996 were verified [...] 13 cases were unverified, and four miscarriages and births were mistakenly recorded as death cases in 1995.”

Altogether, the child mortality data obtained from the 1996 survey (38 deaths per 1,000 live births) were less than one-fifth of those from the 1995 survey (206 deaths per 1,000 live births). Based on these findings, Zaidi concluded that “an accurate estimate of child mortality in Iraq is likely somewhere between these two surveys.” Later, she told Michael Spagat:

My guess is that 'some' Iraqi surveyors recorded deaths when they did not take place or the child had died outside the time frame but they specified the opposite.⁵¹⁵

It is important to note that Zeidi’s 1997 follow-up research and cautious correction of her conclusions were only cited 11 times in peer-reviewed journals, while her 1995 original survey was cited 83 times—eight times more. The gap in academic coverage pales in comparison to the enormous gap in media, humanitarian, and UN reporting.

Based on her experience, Sarah Zaidi made several recommendations:

First, the need for explicit on-site verification, even in only a small portion of the survey sample. Second, the training of local enumerators (and international experts) to underscore the need for objectivity even under difficult circumstances. Third, the need for survey organizers and government to ensure data quality (in Iraq the government would not provide census or birth and death registry data). Finally, the need for reliable indicators of the effects of sanctions on vulnerable sectors of the civilian population (e.g., child mortality is difficult to assess and other indicators such as weight-for-age may be better).⁵¹⁶

It is worth noting that the part of the survey conducted in the Iraqi Kurdistan Autonomous Region, where interviewees and medical staff were free from regime pressure, showed a decline in child mortality after the sharp increase from 1990 to 1991 (see Figure 24). This was despite the initial failure of the international

⁵¹⁴ <https://gh.bmj.com/content/bmjgh/2/2/e000311.full.pdf> , Mohammad Ali, John Blacker and Gareth Jones, "Annual Mortality Rates and Excess Deaths of Children under Five in Iraq, 1991-98", *Population Studies*, vol.57, issue 2, pp.217-226, <https://www.tandfonline.com/doi/citedby/10.1080/0032472032000097119?scroll=top&needAccess=true>

⁵¹⁵ <https://rss.onlinelibrary.wiley.com/doi/full/10.1111/j.1740-9713.2010.00437.x>

⁵¹⁶ Sarah Zaidi, "Child Mortality in Iraq", *The Lancet* (October, 1997), [https://www.thelancet.com/journals/lancet/article/PIIS01406736\(05\)70470-0/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS01406736(05)70470-0/fulltext)

community to fully disconnect northern Iraq from the influence of the sanctions regime. These findings were published in leading medical journals without challenge or critique.⁵¹⁷

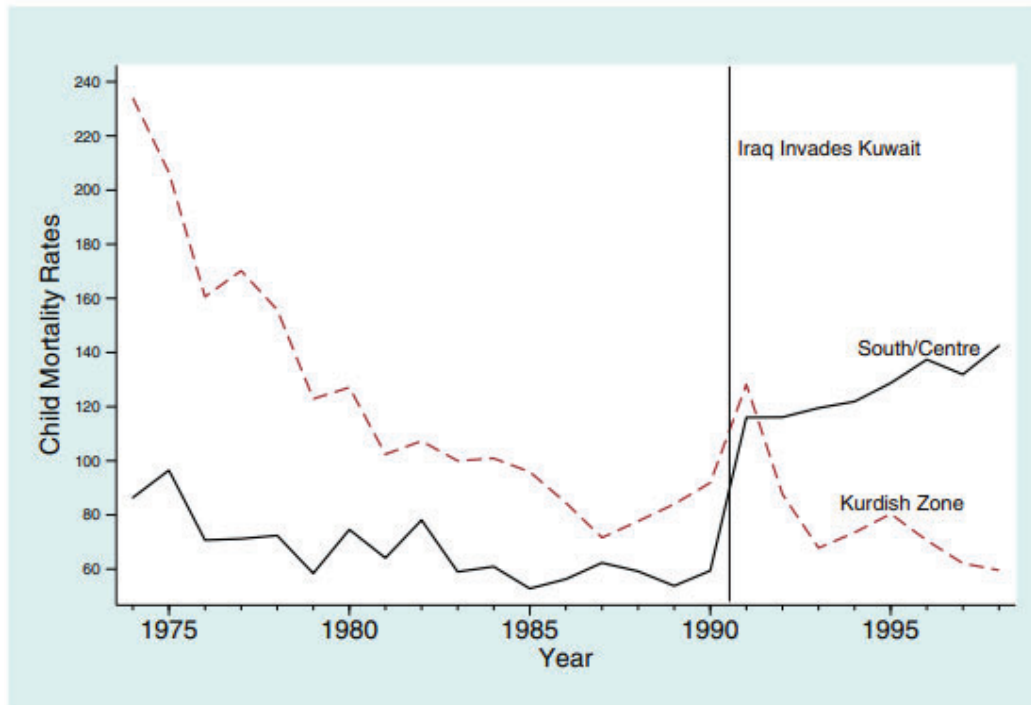


Figure 24: Differences in reports of child mortality between autonomous Kurdish areas and areas under Saddam Hussein's regime⁵¹⁸

Michael Spagat, "Truth and Death in Iraq under Sanctions," reproduced with permission from the Royal Statistical Society, Oxford University Press, *Significance*, Vol. 118, No. 7, 2010.

Moreover, although the 1999 survey findings indicated a severe situation, they showed significantly lower mortality rates, including in Baghdad, compared to those found in the 1995 survey, despite using nearly the same methodology. Instead of raising doubts among researchers and other stakeholders about the findings and methodology used in these surveys, this discrepancy was seen as proof of the survey's professionalism, even by skeptics of the excess mortality claims.⁵¹⁹ Indeed, many of those involved in producing the findings have held—and continue to hold—the view that precisely quantifying child mortality was neither essential nor constructive, and even risked diverting attention from what they saw as the 'undeniable' truth: that children died needlessly.⁵²⁰ Echoes of this anti-quantitative approach can also be seen in the Israel-Hamas war—particularly in Amnesty International's astounding stance, which simultaneously accused Israel of preventing sufficient food from entering Gaza but also declared that:

*Amnesty International has not sought to establish how many food trucks would be needed to enter Gaza to replace the loss of domestic food production and meet the population's nutritional needs.*⁵²¹

⁵¹⁷Ali MM, Shah IH. Sanctions and childhood mortality in Iraq. *Lancet*. 2000 May 27;355(9218):1851-7. doi: 10.1016/S0140-6736(00)02289-3. PMID: 10866440

⁵¹⁸ <https://rss.onlinelibrary.wiley.com/doi/pdf/10.1111/j.1740-9713.2010.00437.x>

⁵¹⁹ <https://cdn.factcheck.org/UploadedFiles/Iraqi-death-toll-doesnt-add-up.pdf>

⁵²⁰ <https://www.gicj.org/positions-opinions/gicj-positions-and-opinions/1188-razing-the-truth-about-sanctions-against-iraq>

⁵²¹ <https://www.amnesty.org/en/documents/mde15/8668/2024/en/>, p.175.

In any case, after the survey was published, pressure increased, including from the UN's special humanitarian panel, to cancel or weaken the sanctions regime, regardless of Iraq's compliance with previous UN requirements.⁵²²

D. Coverage of the UN's Findings by Humanitarian Organizations

Unsurprisingly, Amnesty International published a review of the UN Relief and Humanitarian Assistance Committee's special report that uncritically cited the survey's findings: "According to the report, infant mortality rates in Iraq are now among the highest in the world." The organization concluded that "research by several international organizations, including UN agencies, indicates that the impact of sanctions on Iraq (whether directly or resulting from the manner in which the Iraqi Government has responded to the sanctions, or both) has resulted in violations of the right to life, among other rights, of civilians—in particular children."⁵²³

These claims were further reinforced by Amnesty's 2003 special report, published after the US invasion of Iraq. In this report, the organization argued that "the UN-imposed economic sanctions on Iraq from 1990 contributed to the early deaths of countless people, particularly children, and to widespread hardship."⁵²⁴ Members of the organization in France collected over 10,000 signatures for a petition raising concerns about the humanitarian situation in Iraq under sanctions that was submitted to the UN Security Council.

Human Rights Watch (HRW) echoed Amnesty's 1999 report on global human rights conditions, explicitly referencing not only the 1999 survey but also its predecessor from 1996, which had already been discredited:

*UNICEF reported in October 1997 that one million children were chronically malnourished and that the death rate of children under five in 1996 was eight times greater than before the Gulf War.*⁵²⁵

Furthermore, HRW's report uncritically cited claims that the Oil-for-Food program had failed to improve conditions, along with statements by the UN's former humanitarian coordinator, Dennis Halliday, who denounced the sanctions regime as a form of genocide:

*4,000 to 5,000 children (sic) dying unnecessarily every month due to the impact of sanctions because of the breakdown of water and sanitation, inadequate diet and the bad internal health situation.*⁵²⁶

While contradictions between the new survey and previous surveys, as well as with Iraqi government data, were occasionally mentioned, they were largely dismissed as irrelevant in light of the ongoing humanitarian disaster in Iraq. In fact, these differences were presented as proof of the new survey's professionalism and reliability, which was labeled "definitive." This survey continues to be widely cited today as evidence that non-targeted sanctions—and even sanctions against dual-use materials—are inherently harmful and

⁵²²<https://www.amnesty.org/fr/wp-content/uploads/2021/06/mde140061999en.pdf>

⁵²³<https://www.amnesty.org/en/documents/mde14/006/1999/en/>

⁵²⁴<https://www.amnesty.org/es/wp-content/uploads/2021/06/mde141342003en.pdf>

⁵²⁵<https://www.hrw.org/legacy/worldreport99/mideast/iraq.html>

⁵²⁶<https://www.hrw.org/legacy/worldreport99/mideast/iraq.html>

constitute a violation of IHL.⁵²⁷ This stance is exemplified by opposition to significant sanctions against Iran by HRW and the UN Human Rights Council.⁵²⁸

UNICEF's 2022 report, published long after the findings of that agency in 1999 had been discredited, continues to label the severe impact on children caused by sanctions, including in Iraq, without seriously mentioning the refutation of its most serious claim—child mortality.⁵²⁹

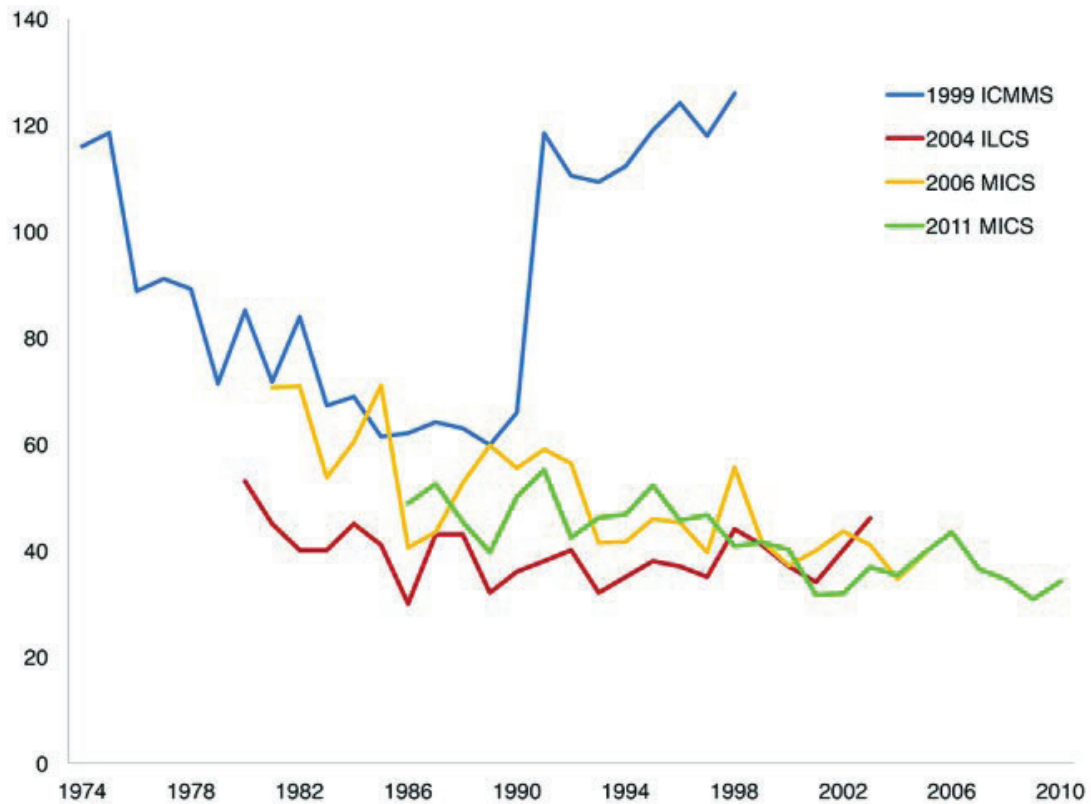


Figure 25: Discrepancy between the 1999 survey and surveys after the fall of Saddam's regime⁵³⁰

Tim Dyson and Valeria Cetorelli, "Changing views on child mortality and economic sanctions in Iraq: a history of lies, damned lies, and statistics," *BMJ Global Health*, 2017;2(2): e000311. Published under the Creative Commons Attribution-NonCommercial 4.0 International License. [Link to article.](#)

⁵²⁷ <https://merip.org/2020/06/the-enduring-lessons-of-the-iraq-sanctions/>, Joyner, Christopher C. (2003) "United Nations Sanctions after Iraq: Looking Back to See Ahead," *Chicago Journal of International Law*: Vol. 4: No. 2, Article 7; https://www.duo.uio.no/bitstream/handle/10852/57619/KristofferFO_master.pdf

⁵²⁸ <https://www.hrw.org/report/2019/10/29/maximum-pressure/us-economic-sanctions-harm-iranians-right-health>, <https://news.un.org/en/story/2022/12/1131887>, <https://www.ohchr.org/en/press-releases/2022/12/us-sanctions-violate-iranian-peoples-rights-clean-environment-health-and>

⁵²⁹ <https://www.unicef.org/innocenti/media/866/file/%20UNICEF-Global-Insight-Sanctions-and-Children-2022.pdf>

אם לדיוק,

⁵³⁰ <https://pmc.ncbi.nlm.nih.gov/articles/PMC5717930/#s4>

Trends in under-five mortality rate in Iraq

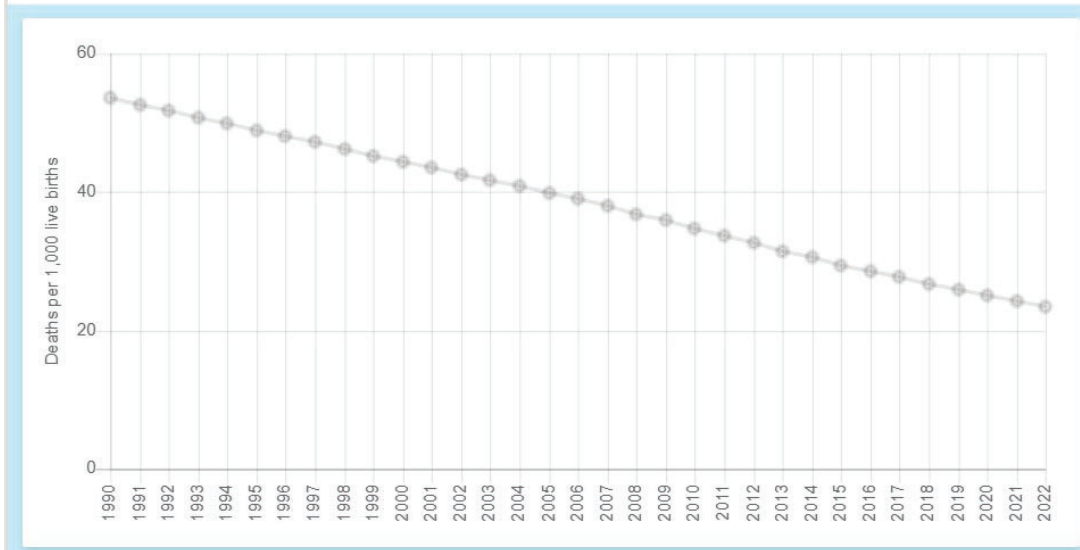
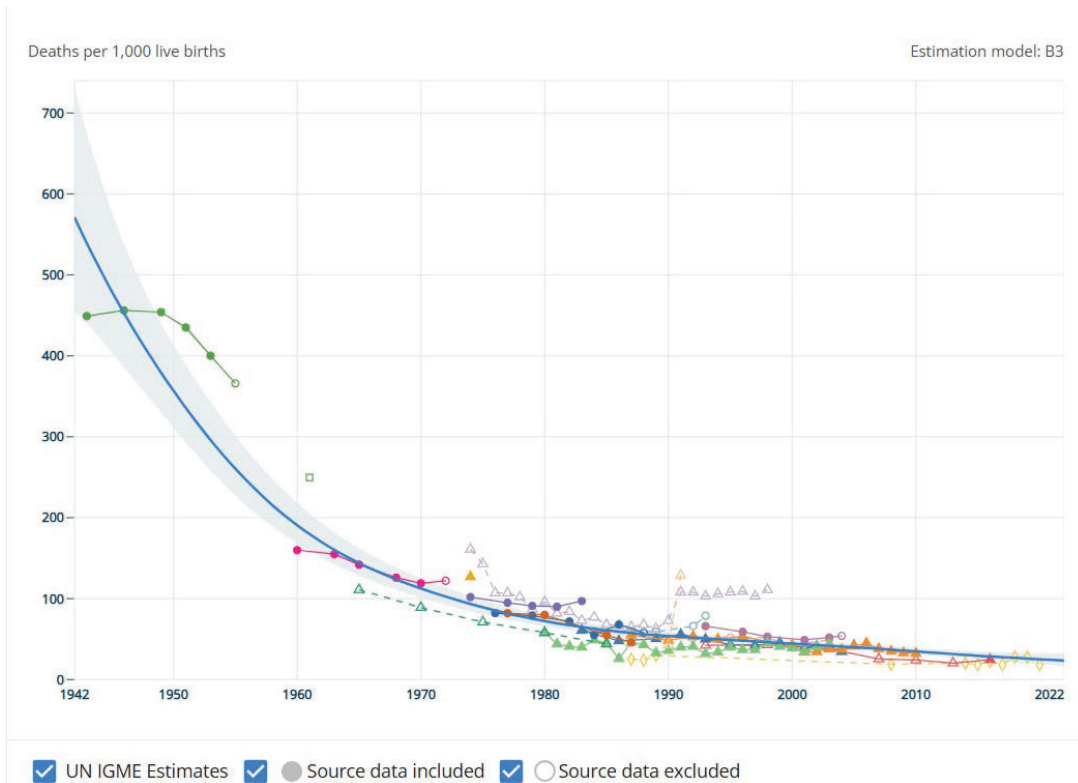


Figure 26: Description of child mortality under five in Iraq as it appears now (March 29, 2025) on UNICEF’s website ⁵³¹

UNICEF Iraq Country Data, by UNICEF. Reprinted under fair use conditions. Available at: <https://data.unicef.org/country/irq/>.



⁵³¹ <https://data.unicef.org/country/irq/>

Figure 27: The UN Inter-Agency Group’s estimate of child mortality—results of the 1999 survey, which is presented in this figure but not actually reflected in the estimates ⁵³²

Child Mortality Estimates for Iraq, by the Child Mortality Institute, UNICEF 2024. Reprinted under fair use conditions. Available at: <https://childmortality.org/all-cause-mortality/data?refArea=IRQ>.

E. Unfounded Consensus: No Elevated Child Mortality Between 1991 and 2003

By 2003, a broad international consensus had formed across the media, academia, human rights organizations, the UN, and even within the US and UK governments that child mortality rates and overall humanitarian suffering in Iraq were alarmingly high. The only major point of contention concerned the degree to which this suffering should be attributed to the sanctions regime versus Saddam Hussein’s government.

This consensus relied on the surveys mentioned above, despite internal contradictions and evidence of manipulation and bias in the data, and it reinforced itself through media echo chambers. It was also based on a position that began to take root in the IHL and humanitarian aid communities—namely, that any sanctions harming the civilian population are legally and morally unacceptable. This perspective led many within the IHL and humanitarian communities to regard any questioning of child mortality data as not only irrelevant but potentially harmful, contributing, in their view, to continued deaths. As a result, the issue was effectively deemed off-limits for discussion, so long as the overarching goal remained the removal of sanctions on Iraq and the prevention of broad sanctions in other contexts.

However, this consensus was not based on facts, but on two false assumptions:

1. that the data collected on child mortality were reliable, despite the internal contradictions between surveys; and
2. that it was possible to produce reliable data through studies conducted in collaboration with Iraqi authorities, using Iraqi interviewers and doctors, or based on testimonies from Iraqis who opposed sanctions personally and collectively, were aware of the influence their testimonies might have on the likelihood of sanctions being lifted, and who, in any case, lived under the threats and pressures of Saddam’s regime.

After the fall of Saddam Hussein’s regime in 2003, additional UN surveys on child mortality were conducted in Iraq (see Figure 27), but their findings did not indicate a sharp and sustained increase in mortality among children under five from 1991 onward. On the contrary: they show a sharp but limited rise between 1990 and 1991, mainly attributable to the suppression of the Shia uprising in the south and the Kurdish uprising in the north; but following 1991, they show a downward trend in child mortality, maternal mortality, and other indicators that continued on a similar trajectory to pre-war surveys.

Not only did sanctions fail to cause an increase in child mortality in Iraq (at least after 1991), but it is difficult to argue that they slowed the decline in mortality. The economic hardship experienced by Iraqi citizens under sanctions—whether justified under international law or not, whether seen as a morally acceptable price for restraining and weakening the regime’s military power or not—does not appear to have worsened their situation to the point of increasing children mortality.

This is not a matter of opinion or interpretation. It is simply the reality reflected in reliable data, unaffected by Iraqi regime interference.

⁵³² <https://childmortality.org/all-cause-mortality/data?refArea=IRQ>

In fact, both UNICEF (Figure 26) and the UN's Child Mortality Assessment Working Group (Figure 27) changed their reports to ignore the 1995 and 1999 surveys, without providing any official explanation or clarification on their websites. Notably, the 1999 report is no longer accessible on UNICEF's site.

F. Early Signs of Data Falsification

Of course, there were many signs indicating that the data on increased child mortality in Iraq had been falsified.

- First and foremost, the population growth rate in Iraq between 1977 and 1987 was nearly identical to the growth rate between 1987 and 1997 (35.8% vs. 35.1%), as can be seen from data published by the Iraqi government itself.⁵³³ If sanctions truly caused the death of one million Iraqis by 1999, half of whom were children, the population growth rate should have been at least 5% lower. Yet, the UN humanitarian panel convened after the 1999 report did not address this fundamental fact. Nor did Amnesty, Human Rights Watch, or the major media outlets covering the issue.
- Tracking data collected by researcher Sarah Zaidi in 1997 revealed serious flaws in the 1995 mortality survey—discrepancies that should have raised significant concern, particularly given that they were published by the author of the original report. Yet no such alarm was raised; in fact, the UN bodies responsible for assessing the humanitarian situation avoided directly addressing these new findings.
- The stark discrepancy between the 1995 and 1999 survey results was, in itself, sufficient to warrant serious suspicion. But instead of raising doubts, the data were accepted without question. The contradiction was not discussed in the 1999 report, nor in the UN Humanitarian Panel that adopted it, nor in the humanitarian and media coverage that followed.
- The 1999 report claimed that child mortality continued to rise between 1996 and 1998 despite the easing of the Oil-for-Food program, which allowed the import of not only food and medicine but also infrastructure materials. This rise was reported even as Iraq's per capita GDP recovered and neared pre-war levels. The findings of this report, which further reinforced calls to ease sanctions, contradicted common sense. Moreover, the claim that mortality rates from 1996 to 1998 increased while the rates from 1991 to 1995 were reported as lower than those in the 1995 survey should have raised further suspicion of data manipulation—yet, to the best of our knowledge, this was never reported by anyone.
- The 1999 report showed that in the Kurdish autonomous region in northern Iraq, there was a continuous decline in infant mortality from 1992 onward, even though that region was subject to the same economic sanctions imposed on Saddam-controlled Iraq. This was at least an indication that the main responsibility for deaths lay with the Iraqi regime and its resource distribution policies, not with the sanctions themselves. Yet, although there was apparently acknowledgement of the validity of this claim, it was formulated so that the final blame was placed on the implementation of sanctions rather than Saddam's regime.⁵³⁴
- An independent FAO report, written in cooperation with the World Health Organization (WHO) and published in September 2000, was largely ignored. Although this report uncritically cited the 1999 UNICEF survey indicating widespread malnutrition and high child mortality, its findings painted a very different picture—namely, a high prevalence of obesity. The report stated:

More than half the adult population has some degree of overweight. For those aged 25 years and over, the survey revealed a high prevalence of overweight (BMI 25+). For Baghdad, this was 67%,

⁵³³ Amatzia Baram. "The Effect of Iraqi Sanctions: Statistical Pitfalls and Responsibility." *The Middle East Journal*. Volume 54, No. 2, Spring 2000. P. 196.

⁵³⁴ Ali MM, Shah IH. Sanctions and childhood mortality in Iraq. *Lancet*. 2000 May 27;355(9218):1851-7. doi: 10.1016/S0140-6736(00)02289-3. PMID: 10866440.

*Kerbala 50% and Diala 47%. The greater this excess, the more a subject is at risk of obesity. The prevalence of severe overweight (BMI 30+) was 30%, 27% and 18% respectively. This was more prevalent in females than males for Baghdad (34% and 23%) and for Diala (21% and 14% respectively), but the problem is serious for both sexes. The major reported causes of death in adults are heart disease, hypertension and diabetes, all conditioned by obesity.*⁵³⁵

These findings should have raised serious questions about the claim that the Iraqi population suffered from widespread malnutrition and a severe humanitarian crisis due to sanctions.

G. Continued Quoting of Infant Mortality Claims in Iraq After Refutation

Despite clear and unequivocal factual refutation of excess mortality in Iraq caused by the sanctions—also reflected in updated UN data—this claim continues to be cited. Ignoring this clear refutation remains common among activist organizations, such as the Geneva International Center for Justice⁵³⁶ and ReliefWeb⁵³⁷. Furthermore, claims of supposed mortality caused by sanctions, based on survey data from Saddam’s regime, still appear in medical⁵³⁸ and academic⁵³⁹ publications, as well as in reports of established policy think tanks.⁵⁴⁰

A formal retraction by UN agencies and human rights organizations that had previously attributed excess deaths in Iraq to sanctions would go a long way toward dispelling the false assumptions that continue to shape international law and sanctions-related activism. However, as we will later demonstrate, such a retraction—despite clear evidence—runs counter to the bureaucratic culture and ideological foundations of these organizations.

H. Methodological Conclusions from the Iraqi Case

1. The ability of authoritarian regimes to falsify public health data is far greater than usually estimated.
2. The ability of international researchers to detect data falsification is much lower than usually believed.
3. The credibility of UN mortality reports—conducted under conditions allowing interference by authoritarian regimes—is very low, approaching zero.
4. Signs of inconsistency in mortality estimates should be taken seriously and thoroughly investigated to prevent data falsification.
5. Even when researchers who conducted the original surveys correct their findings, their conclusions tend to be dismissed in academic circles—much more so by the media, the humanitarian community, and the UN.
6. The UN’s willingness to admit mistakes publicly and to openly discuss correcting its data collection methods is very low, approaching zero. Therefore, investigations carried out by the UN should not be regarded as neutral or automatically reliable.

⁵³⁵ <https://www.fao.org/4/x8147e/x8147e00.htm?utm>

⁵³⁶ <https://www.gicj.org/positions-opinions/gicj-positions-and-opinions/1188-razing-the-truth-about-sanctions-against-iraq>

⁵³⁷ <https://reliefweb.int/report/iraq/iraq-suffer-children>

⁵³⁸ Al-Ani, Zaid & Al-Hiali, Sahar & Al-Farraj, Hussain. (2011). Secular trend of infant mortality rate during wars and sanctions in Western Iraq. Saudi medical journal. 32. 1267-73.

⁵³⁹ <https://www.jstor.org/stable/4418840>

⁵⁴⁰ <https://www.piie.com/blogs/north-korea-witness-transformation/sanctions-and-ghosts-iraq-part-1>

7. When a specific number of victims is presented to the public (through media, humanitarian organizations, or the UN), it will be adopted and disseminated regardless of its credibility, due to a well-known cognitive bias called the “anchoring effect.”⁵⁴¹ Even when a figure is entirely false, it can continue to be cited for years. Its eventual refutation rarely receives the same level of attention as the original claim.

⁵⁴¹ ליאור יפה, אביתר מתניה, "אפקט העיגון כהטייה יסודית במחקר מודיעיני" (סדנת יובל נאמן למדע טכנולוגיה וביטחון, אוניברסיטת תל אביב, 2011), <https://sectech.tau.ac.il/sites/sectech.tau.ac.il/files/%D7%A4%D7%A7%D7%98%20%D7%94%D7%A2%D7%99%D7%92%D7%95%D7%9F%20%D7%9C%D7%99%D7%90%D7%95%D7%A8%20%D7%99%D7%A4%D7%94%20%D7%90%D7%91%D7%99%D7%AA%D7%A8%20%D7%9E%D7%AA%D7%A0%D7%99%D7%94.pdf>

Chapter Seven: The Question of Civilian Casualty Assessment in Conflict Zones: A Comparative Study

Summary

In the previous chapter, we explored the biases and methodological flaws exhibited by the UN, human rights organizations, and affiliated scholars in reporting humanitarian falsehoods under dictatorial regimes during peacetime. In this chapter, we turn to the challenges these same actors face in estimating civilian and military casualties in active conflict zones. We will examine their frequent failure to distinguish between combatants and non-combatants, both during and in the aftermath of deadly events. Specifically, we will analyze the following cases:

- Operation “Defensive Shield” (2002) — During the fighting in the Jenin refugee camp in the West Bank, Palestinian witnesses reported a “massacre” in which hundreds, even thousands, of civilians were killed. These claims were repeated without verification by the UN and human rights organizations. But after thorough investigation, it was revealed that the actual number of casualties in the camp was fewer than 50, half of whom were identified as combatants. Although most eyewitness accounts of the massacre were discredited, human rights organizations continued to rely on unverified claims from Palestinian witnesses and prioritized them over the evidence and data provided by the IDF. This is an example of the “burden of proof” fallacy: a double standard that treats civilian or NGO sources as automatically credible, while demanding that governmental sources—especially militaries—back their statements with evidence that meets a substantially higher burden of proof, without accounting for the need to protect intelligence sources and operational methods.

- Second Lebanon War (2006) — During the fighting, media outlets and human rights groups focused on reporting civilian casualties in Lebanon, with almost no acknowledgment or distinction of Hezbollah fighters. During the war, Hezbollah admitted to losing only 70 fighters whose deaths could be inferred from media reports, but months after the war ended, it acknowledged the loss of 250 fighters. By contrast, the IDF estimated that 600 to 700 combatants were killed, while sources within the Lebanese government and the UN placed the number at approximately 500.

Human Rights Watch reviewed hundreds of Israeli attacks that accounted for roughly half the casualties during the war, interviewing victims’ families and inspecting the sites of the strikes. Yet despite this extensive effort, it was able to identify only 35 Hezbollah fighters among the dead. By contrast, it easily identified 13 combatants from smaller factions—groups that fielded negligible forces compared to Hezbollah but were far less secretive and made little effort to conceal their losses.

In both Operation Cast Lead (2008-2009) and Operation Protective Edge (2014), Hamas—like Hezbollah—adopted a policy of concealing the number of combatant casualties. Initially, human rights organizations emphasized the high number of civilian deaths and rejected Israeli claims that Hamas was hiding within the population to maximize civilian damage. Months after the fighting, it turned out that most of the *men* killed in combat were affiliated with Hamas or other armed groups, and the ratio of female to male casualties was one female for every five males. Witness accounts indicating most of the dead were women and children were found to be unreliable.

We believe the main factors behind these flaws are as follows:

1. **Narrow Definition of “Fighter”** — Many human rights organizations choose to apply a very restrictive interpretation of what constitutes a “civilian involved in direct participation in hostilities [DPH],” recognizing as lawful targets only those actively wielding weapons at the moment of

engagement as meeting the criteria of DPH. We do not expect these organizations to adhere to the Israeli Supreme Court’s interpretation of unlawful combatant, but we do find it important to note that in its 2009 Interpretive Guidance, the ICRC clarified that it is permissible to target as DPHs not only individuals directly engaged in combat at a given moment, but also those who assume a *continuous combat function*—a status-based designation within the broader doctrine of direct participation in hostilities. Despite this clarification, the concept of continuous combat function has been met with considerable resistance within the human rights community and remains a point of contention for interpretation of casualty figures.

2. Human Rights-Based Interpretation of IHL — Most human rights groups reporting on conflict adhere to a legal approach that interprets the application of IHL in a narrow manner, prioritizing where possible the applicability of human rights-based standards regarding the prevention of harm to civilians and minimizing the weight given to military considerations. This makes it difficult for them to accept a broader and more liberal interpretation of the applicability of IHL with regard to the permissible harm that may be caused to civilian spaces when enemy combatants exploit them for combat purposes.

3. Personal Experience Bias — Few reporting organizations include military experts in leadership or decision-making positions. Instead, they are predominantly led by legal professionals, academics, and humanitarian activists. While some organizations do have among their ranks combat veterans and former military legal advisors, these positions are relatively few in comparison. The absence of analysis from a military perspective influences their ability to properly understand and analyze the complexity of warfare from the attacker’s standpoint.

This chapter will demonstrate how the combination of the UN agencies and human rights organizations’ difficulties in identifying the presence of covert fighters embedded in civilian populations, proscriptive interpretations of the laws of war, a human rights-interpretative orientation, and lack of military expertise in key positions leads to a systemic failure in assessing the actual ratio of combatant to civilian casualties during conflicts. These limitations are exacerbated when armed conflicts involve authoritarian regimes that govern closed societies, and often persist even after the fighting has ended. As demonstrated in the previous chapter, these organizations have shown themselves unable to debunk false claims of excessive civilian mortality in past events, even when confronting oppressive regimes operating in times of peace.

A central role is played here by what we call the “certainty mirage”. Much like the acceptance without verification of GMOH data explored in the previous chapter, there is a tendency to assume that if there is only one source, or a single set of related sources such as reports from UN agencies or human rights organizations, we must accept their findings as credible. In other words, because we have no other sources with which to contrast them, they must be true. The primary reason for this fallacy lies in an ideological predisposition to accept all civilian and NGO allegations of war crimes and humanitarian harm at face value, unless and until they are definitively disproven (i.e., they are considered true until proven false). Conversely, states and armies are required to provide conclusive evidence for their claims (considered false until proven true).

Proponents of this approach implicitly justify this double standard by claiming to prioritize the prevention and early warning of the occurrence of potential war crimes over strict evidentiary accuracy – it is better to cry “wolf!” than wait until it is too late to raise the alarm – in the hope of minimizing civilian casualties. This is not an inherently bad idea or a bad faith argument, but in the absence of a systematic learning process and meaningful consequences for false reporting, the predictable outcome is the unjust criminalization of lawful state conduct—and the corresponding failure to identify and prevent actual war crimes. When the wolf eventually *does* come, no one will be there to listen.

A. The Battle of Jenin, 2002: The Massacre That Never Was

On April 2, 2002, a Palestinian suicide bomber killed 30 Israeli civilians by detonating himself in the lobby of the Park Hotel in Netanya during the Passover Eve holiday Seder. Subsequently, Israel launched a ground operation ("Operation Defensive Shield") into major Palestinian cities in the West Bank, including the Jenin refugee camp. In most of the target cities, IDF forces encountered minimal resistance, but in Jenin the situation was different.

The Jenin refugee camp was the point of origin for at least 23 of the first 100 suicide attacks carried out in Israel—attacks that claimed the lives of 131 Israelis.⁵⁴² The Palestinian armed factions within the camp had prepared in advance for the entry of IDF forces and established a joint operations room. The camp was divided into several sub-areas, and selected residential houses were packed with large quantities of explosives—a relatively new tactic at the time, which surprised the IDF and inflicted heavy casualties on its soldiers.

Over the course of the next two weeks, the IDF besieged the camp and sought to isolate it while calling on the civilian residents to evacuate for their safety. Women and children were relocated to nearby villages, while men were detained and subjected to screening procedures designed to distinguish between fighters disguised as civilians and the actual civilian population. About 90% of residents evacuated themselves within three days. The operation ended on April 12, 2002 after more than 200 armed individuals surrendered to IDF forces.

It was during these two weeks that reports began to flow from a small number of Palestinians who chose to remain in the camp that Israel had carried out a mass atrocity and a massacre of the remaining residents. These claims were made by senior Palestinian officials, including:

- Palestinian Authority Secretary-General Ahmed Abed al-Rahman, who claimed on April 12, 2002 that thousands of Palestinians had been killed and buried in mass graves.⁵⁴³
- Palestinian Minister of Information Yasser Abed Rabbo, who claimed that 500 Palestinians had been killed, half of whom were women and children. This was officially presented to the UN Human Rights Council on April 15, 2002.⁵⁴⁴ Later, Abed Rabbo accused Israel of murdering 900 Palestinians and burying their bodies in mass graves.⁵⁴⁵
- Palestinian mediator Saeb Erekat, who, at the conclusion of the operation, after journalists were allowed access to the camp, accused Israel of hiding the bodies of the dead, saying: "They want to hide their crimes, the bodies of the little children and women."⁵⁴⁶

Beyond the allegation that hundreds or even thousands of Palestinians had been killed, official Palestinian figures presented specific accusations regarding the manner of killing and the concealment of bodies. The main claims included:

- The entire camp was destroyed with bulldozers that buried whole families under the rubble.
- More than half the dead were women and children.
- The IDF removed the bodies and transferred them to distant mass graves.

⁵⁴²https://web.archive.org/web/20080705043647/http://www.mfa.gov.il/MFA/MFAArchive/2000_2009/2002/7/Suicide%20Bombers%20from%20Jenin

⁵⁴³ <https://www.upi.com/Defense-News/2002/04/13/Palestinians-Hundreds-in-mass-graves/47761018714688/>

⁵⁴⁴ <https://www.ohchr.org/en/press-releases/2009/10/commission-human-rights-mary-robinson-submits-status-report-planned-mission>

⁵⁴⁵ <https://rense.com/general24/900.htm>

⁵⁴⁶ <https://www.theguardian.com/world/2002/apr/12/israel4>

Western media extensively and uncritically covered the claims of senior PA officials and camp residents. Although Israel was frequently accused of restricting journalistic access to the camp during the operation, most specific allegations of a “massacre” emerged only after the fighting had concluded. Journalists who visited the camp shortly after the fighting initially tended to affirm the allegations, relying primarily on alleged eyewitness accounts from Palestinian residents.

On April 16, 2002, four days after the end of the battle, the *Sydney Herald* published the account of a resident named Muiassar Abu Ali, a 43-year-old woman who worked at the Jenin hospital. She reported having personally witnessed the execution of five young men, the killing of a seven-member family by a missile fired from a helicopter, and bodies scattered “every few meters” as she exited the camp. Her claims were presented as eyewitness testimony and were simultaneously cited as evidence that Israel’s estimate of a total of 45 Palestinian fatalities during the fighting was implausibly low:

*The latest Israeli estimate of 45 Palestinians dead is difficult to reconcile with accounts from survivors of the 10-day battle... [since] “if only 45 Palestinians died in the Israeli Army assault on the West Bank camp last week [...] she alone saw more than half of the deaths.”*⁵⁴⁷

On April 14, veteran military reporter Peter Beaumont of *The Guardian* estimated, based on his interviews, that between 100 and 200 Palestinians had been killed, most of whom were civilians. He wrote: “What is clear, however, is that between these two positions it is the civilians of Jenin who have suffered the most.” This conclusion appeared inevitable based on the testimonies of Palestinians he interviewed. For example, Ali Mustapha claimed he was shot in the knee by IDF soldiers while acting as a human shield, and he personally witnessed “the live burial” of five entire families beneath bulldozers, naming them:

*It is a story we have heard several times before, but without detail. I ask him to tell me the names of those who died in this way. 'The household of Abu Naif Zagrah,' says Ali Mustapha with certainty. Who else? 'The households of Mazen al-Ghul and Abura al-Ghul.' He continues: 'Abu Jawad Narseh and Abu Jawad al-Asmar.’*⁵⁴⁸

Another witness, Maaz Staty, aged 22, claimed that three women he knew, including his mother and his 52-year-old cousin, were killed in the same manner. Dr. Zaid Ayasi, the director of the local hospital, said that “many” people who were killed by helicopter gunfire were brought to his hospital. Beaumont found this credible because he personally saw, from a nearby hill from which journalists were allowed to enter, helicopters firing at the camp “every five minutes.”⁵⁴⁹

These reports were echoed by UN officials. Terje Roed-Larsen, the UN envoy for the Middle East, visited the camp five days after the fighting ended, basing his comments on conversations with residents. He stated that “Israel has lost all moral ground in this conflict.”⁵⁵⁰ Human rights organizations followed suit. On April 18, Prof. Derrick Pounder, representative of Amnesty International’s forensic team, declared during a visit to the camp that the Palestinian claims appeared credible. He also noted that he knew for certain that a large number of civilians were buried under the rubble, and that “there are families who were there and killed and buried.”⁵⁵¹ Peter Bouckaert, senior researcher at HRW, was more cautious, stating that “I think it’s clear that

⁵⁴⁷ <https://www.smh.com.au/world/middle-east/evidence-and-reality-collide-in-a-battle-of-words-20020416-gdf79k.html>

⁵⁴⁸ <https://www.theguardian.com/world/2002/apr/14/israel>

⁵⁴⁹ <https://www.theguardian.com/world/2002/apr/14/israel>

⁵⁵⁰ <https://www.washingtonpost.com/archive/politics/2002/04/19/un-envoy-calls-camp-horrifying/6d23e7b6-3bf4-43f5-8def-dd36dc554504/>

⁵⁵¹ “Jenin ‘massacre’ evidence growing”: http://news.bbc.co.uk/2/hi/middle_east/1937048.stm

in the end what actually happened in Jenin will fall somewhere in between what the Palestinians are alleging and what the [Israeli army] claims.”⁵⁵²

However, about two weeks after the operation ended, a different picture began to emerge. Peter Beaumont of *The Guardian*, who had previously confidently declared that civilians were the main victims in Jenin, revised his position and asserted: “[For] as the hunt for the bodies goes on, it is increasingly clear from evidence collected by journalists that the majority of those so far recovered have been fighters from Islamic Jihad, Hamas and the al-Aqsa Brigades. Certainly civilians died. But so far they are in the minority.” He now regarded the allegations of prisoner executions—let alone those involving civilians—as less credible than he had previously believed:

*Mr G, as he asks me to call him, tells me that a handicapped boy was "buried alive by the Israelis". He translates this in Arabic to the men around him, and they "correct" him. He tells me then that, in fact, five handicapped residents were buried by bulldozers. I hear many accounts like this. Numbers of the missing and dead that will not bear scrutiny.*⁵⁵³

Indeed, the number of dead and missing did not withstand scrutiny and review. Contrary to Bouckaert's earlier confident estimate, the number of casualties and their identities almost exactly matched IDF data. In HRW's report published on May 2, 2002, 52 Palestinians were identified as dead. Of these, six were women, four were adolescents classified as children, and six were men over the age of 55. The organization identified 27 of the dead as fighters, 22 as non-combatants, and did not reach a conclusion about the rest. These figures largely correspond with the findings of the UN fact-finding mission and the Palestinian Authority's own investigation, which concluded that 56 Palestinians had been killed in the fighting.⁵⁵⁴

Subsequent reports by Human Rights Watch, Amnesty International, and the United Nations dismissed the massacre allegations. However, despite the fact that the overwhelming majority of the dead were military aged and male, and that the number of identified civilian casualties amounted to less than 10% of those killed or captured, all these reports had relied on the Palestinian residents' accounts of the circumstances surrounding the deaths. Their conclusions regarding war crimes rested almost entirely on these testimonies—even though many of the eyewitness accounts were later discredited once comprehensive victim lists were compiled.⁵⁵⁵

It is worth noting that in most cases, unlike what we saw in Chapters 2 and 5 regarding the ongoing (as of 2025) Gaza War and previous rounds of fighting in Gaza, there was no attempt in Jenin to conceal the organizational affiliation of the dead. This stemmed from two main reasons:

- membership in armed groups conferred social status and material benefits to the families of the dead; and
- competition among various armed factions—Fatah's Tanzim, Hamas, Islamic Jihad, and the Palestinian Authority security forces—for public recognition within Palestinian society facilitated the IDF's and Shin Bet's efforts to identify the organizational affiliations of Palestinian casualties during the Second Intifada.

As of August 2004, nearing the end of the Second Palestinian Intifada, out of 2,124 identified Palestinian fatalities, 466 were affiliated with Hamas, 408 with Fatah, and 205 with Islamic Jihad, while 334 were

⁵⁵² <https://www.washingtonpost.com/archive/politics/2002/04/19/un-envoy-calls-camp-horrifying/6d23e7b6-3bf4-43f5-8def-dd36dc554504/>

⁵⁵³ <https://www.theguardian.com/GWeekly/Story/0,,689935,00.html>

⁵⁵⁴ <https://www.hrw.org/report/2002/05/02/jenin/idf-military-operations>,
<https://press.un.org/en/2002/sg2077.doc.htm>, [https://www.inss.org.il/wp-content/uploads/sites/2/systemfiles/\(FILE\)1190277272.pdf](https://www.inss.org.il/wp-content/uploads/sites/2/systemfiles/(FILE)1190277272.pdf)

<https://www.washingtontimes.com/news/2002/may/1/20020501-023924-2910r/>

⁵⁵⁵ <https://www.amnesty.org/en/wp-content/uploads/2021/10/mde151492002en.pdf>

members of the Palestinian Authority security forces. Overall, a total of 1,413 Palestinian fatalities, representing 66% of all fatalities, were affiliated with armed organizations.⁵⁵⁶

The Jenin episode is a clear example of the double standard applied to the IDF with regard to the “burden of proof” fallacy: Palestinian testimonies received precedence over IDF claims, civilian reports were accepted at face value, and military reports were dismissed until a preponderance of evidence had been presented to support them. Even when sufficient evidence was accumulated to challenge or outright discredit some of the testimonies, the remaining eyewitness accounts were still considered more reliable than the official military after-action reports.

B. The Second Lebanon War, 2006: Conspicuous Civilians, Invisible Fighters

Unlike the policies of Palestinian militant organizations during the Battle of Jenin, Hezbollah in Lebanon has always adopted a more discreet policy with regard to the fate of its members during armed conflicts in which it was engaged. In the view of Naim Qassem, the organization’s current Secretary-General, this policy was a key factor in its success.⁵⁵⁷

Over 15 years of low-intensity conflict in southern Lebanon, Hezbollah reported casualties amounting to 1,276 “martyrs”, most of them after 1987. In its publications, the organization generally refrained from providing details about the circumstances or timing of their deaths. Notably, during the escalation of tensions between Israel and Hezbollah in April 1996 (IDF Operation Grapes of Wrath), the organization claimed to have lost just 13 fighters—only five more than its average monthly losses during the Israeli occupation of Southern Lebanon.⁵⁵⁸ Israel’s estimate was much higher, and Hezbollah’s claims could be interpreted as an attempt to downplay or minimize the impact the operation had on its forces. Similarly, during IDF Operations Accountability in 1993 and Law and Order in 1988, during which Israel claimed to have eliminated 50 enemy fighters, Hezbollah did not publish any casualty lists and claimed to have sustained minimal losses.⁵⁵⁹

During the Second Lebanon War in 2006, Hezbollah fighters rarely gave interviews to foreign or local media, and often simply avoided journalists when they were approached. Local or foreign reporters, even those perceived as aligned with Hezbollah, were not permitted to accompany fighters during military operations.⁵⁶⁰

This pattern held steady during the 2006 conflict. Over the two months of fighting, the IDF published daily figures of its own casualties, while Hezbollah never announced its tally of fighters killed. Casualty reports of Hezbollah members appeared only sporadically, generally in the form of reports originating from the Lebanese Army or from other sources, with published reports totaling 70 deaths. Notably, other Lebanese militias—most prominently Amal, Hezbollah’s Shiite rival—formally reported approximately 30 additional fatalities, despite their relatively limited military capacity and minimal involvement in the fighting compared to Hezbollah.

This difference in strategies could probably be explained by the different political considerations at play in the organizations. Amal and the other militias were not seeking to “win the war” or even conceal their losses, but rather used them as proof of their legitimacy; their casualty tally helped them maintain their political popularity and preserve their relevance to their supporters. The Lebanese government, meanwhile, reported

⁵⁵⁶ <https://www.haaretz.com/2004-08-24/ty-article/israeli-death-toll-in-intifada-higher-than-last-two-wars/0000017f-db8d-d856-a37f-ffcd8000000?lts=1745601576671>

⁵⁵⁷ Naim Qassem, *Hizbullah: The Story from Within*. Trans. Dalia Khalil (London: Saqi, 2005), pp.69-70.

⁵⁵⁸ Robert Fisk; *Pity The Nation: Lebanon at War* (Oxford: Oxford University Press, 2001), p.1126; <https://www.syriahr.com/en/40799/>

⁵⁵⁹ <https://www.idf.il/en/mini-sites/wars-and-operations/operation-accountability/> , גל פרל פינקל ואבירם, רינג, "מבצע חוק וסדר: שלושים שנה אחרי", *מערכות*, גיליון 477 (2017), עמ' 59.

⁵⁶⁰ <https://www.hrw.org/sites/default/files/reports/lebanon0907.pdf> , p.42.

1,086 non-military or non-police deaths, without distinguishing between civilians and fighters from Hezbollah and other resistance groups—in line with Hezbollah’s policy of concealment.⁵⁶¹

Simultaneously, HRW conducted a comprehensive, detailed study to identify the circumstances of as many civilian deaths as possible during the fighting, relying, of course, on testimonies from Lebanese civilians. The study examined 94 Israeli air, ground, and artillery strikes that resulted in a total of 561 fatalities. Of these, HRW identified only 51 as Hezbollah operatives, seemingly corroborating Hezbollah’s initial claims of minimal losses. However, by the time the report was published in September 2007, Hezbollah had acknowledged the deaths of at least 250 fighters. This change in posture can be partially explained by an attempt to enhance its political stature by highlighting the sacrifices it made in defense of Lebanon. In effect, even by Hezbollah’s own admission, HRW’s ostensibly rigorous and professional analysis was incomplete.

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The IDF, meanwhile, claimed to have killed up to 800 fighters during the war, and identified 440 Hezbollah fighters after the fact. It later revised its estimate to 600–700 fighters killed.⁵⁶³ Lebanese sources and UN officials cautiously estimated about a month after the war that the number of Hezbollah dead was around 500 fighters.⁵⁶⁴

HRW was forced to accept Hezbollah’s admission that 250 of the dead were fighters (disregarding IDF claims and other higher estimates). However, it did not identify those casualties in the incidents it reviewed, nor in the list it compiled detailing the identities of the 548 people it claimed killed who were not included in the 94 examined incidents.⁵⁶⁵ Hezbollah’s true losses remained “invisible” to HRW.

Interestingly, even HRW’s claim in the preface to its report—that it identified 51 Hezbollah fighters across 94 investigated incidents—is not entirely accurate. In reality, the study accounted for only 35 Hezbollah operatives among the total casualties examined, or roughly half the fatalities documented in those incidents. This figure of 35 corresponds to precisely half the number of Hezbollah deaths the group itself eventually acknowledged during the war—70 in total—following disclosures by third parties that effectively compelled Hezbollah to confirm them.⁵⁶⁶ HRW’s list also included eight Amal and five Communist Party combatants—again, roughly half the total fatalities acknowledged by each organization. Unlike Hezbollah, these groups openly publicized their losses. The study thus failed to present even a full list of the Hezbollah combatant deaths that had already been disclosed by the group itself.

HRW adopted a position that appears inconsistent regarding Hezbollah’s visibility. On the one hand, HRW claimed it was easy to determine the organizational affiliation of those killed in the incidents it investigated,

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<https://web.archive.org/web/20220328125249/https://apnews.com/article/82ccc1313d4332f45e2dc09f6bd44989>,

https://web.archive.org/web/20060831215221/http://www.atimes.com/atimes/Middle_East/HH17Ak02.html,

https://web.archive.org/web/20101210085022/http://www.dailystar.com.lb/July_War06.asp#axzz17hH7puSo

⁵⁶² <https://web.archive.org/web/20220328125249/https://apnews.com/article/82ccc1313d4332f45e2dc09f6bd44989>; <https://www.hrw.org/sites/default/files/reports/lebanon0907.pdf>, pp.5,17.

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<https://web.archive.org/web/20220415133450/https://apnews.com/article/82ccc1313d4332f45e2dc09f6bd44989>

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<https://web.archive.org/web/20070530003725/http://www.telegraph.co.uk/news/main.jhtml?xml=/news/2006/08/04/wmid404.xml>,

<https://web.archive.org/web/20071016144459/http://www.telegraph.co.uk/news/main.jhtml?xml=/news/2006/08/22/wmid122.xml>

⁵⁶⁵ http://news.bbc.co.uk/2/shared/bsp/hi/pdfs/06_09_07_hrwlebanon.pdf Pg 213-223

⁵⁶⁶ http://news.bbc.co.uk/2/shared/bsp/hi/pdfs/06_09_07_hrwlebanon.pdf Pg 202-213

citing the presence of “shaheed” (“martyr”) inscriptions on the victims’ tombstones as a key source of identification. On the other hand, HRW suggested that Hezbollah’s secrecy made it difficult to ascertain the identities of those killed during combat operations. This creates a tension between the two arguments that is difficult to reconcile.

The organization ultimately concluded that Israel’s legitimate military engagements occurred largely outside the scope of the strikes it analyzed—strikes that had taken place within Lebanese villages where the IDF asserted Hezbollah was operating. Based on its inability to identify Hezbollah casualties in these areas, HRW probably inferred that Hezbollah was largely absent from the villages it reviewed.

Notably, in the 94 incidents examined by HRW, the number of adult male fatalities was three times that of female fatalities—a pattern for which the Lebanese government provided no comparable data. This is despite the fact that most of the fatalities documented in the report resulted from Israeli airstrikes on houses or enclosed vehicles—targets in which the occupants’ gender is rarely discernible in advance. As such, the pattern of casualties does not suggest randomness or indifference to the identities of those killed, which is inconsistent with the allegations that Israeli strikes were random or indiscriminate in nature.⁵⁶⁷

The methodology employed by human rights organizations to determine whether the deceased were combatants—relying primarily on testimonies from family members, neighbors, and open sources—has been shown to be unreliable. The findings of such methods are questionable, particularly when witnesses are sympathetic to the armed group or vulnerable to its coercion, or when the group itself pursues a policy of concealing its losses. Notably, despite the evident inconsistencies in HRW’s report, it was widely cited by UN bodies and the media as an authoritative source. Here, once again, we see the “burden of proof” fallacy in action.

C. Operation “Cast Lead” (2008-2009) and the Goldstone Report

Shortly after taking over the Gaza Strip by force in 2007, Hamas adopted some of Hezbollah’s tactics and policies, including in the realm of information warfare. Unlike the years of the Second Intifada, Hamas publicly paraded its “martyrs” to curry favor with the Palestinian public in the context of its rivalry with Fatah. During the December 2008-January 2009 war referred to as Operation Cast Lead, however, Hamas reduced its reporting of casualties.

Indeed, Hamas’s claims in 2008 followed those of Hezbollah in 2006—initially claiming to have lost only 48 fighters during the conflict, and claiming that all 1,440 additional deaths reported by the Gaza Ministry of Health were civilians.⁵⁶⁸ It is worth noting that at that time, the Gaza Ministry of Health had undergone a political purge by Hamas. Medical officials identified with Fatah were dismissed, new Hamas-aligned doctors were appointed, and the minister and administrative staff were all Hamas appointees.⁵⁶⁹ Similarly to the situation in Lebanon, the GMOH did not distinguish between civilians and combatants in its reports.

Months after the war, following conflicting reports and local criticism in Gaza that Hamas was deliberately embedding itself within the civilian population and causing it to bear the brunt of the damage caused by the fighting, Hamas’s political bureau chief, Khaled Mashal, claimed in June 2009 that Hamas had lost more than 400 fighters during the conflict (including, notably, its police officers in the figure). In contrast, Hamas’s interior minister, Fathi Hammad, claimed in November 2009—two months after the UN fact-finding mission’s visit to Gaza—that Hamas had lost between 200 and 300 fighters. In an interview conducted about

⁵⁶⁷ http://news.bbc.co.uk/2/shared/bsp/hi/pdfs/06_09_07_hrwebanon.pdf, pp.5-6, 26, 41-2, 183-223.

⁵⁶⁸ https://www.terrorism-info.org.il/Data/articles/Art_20700/H_143_14_751174238.pdf

⁵⁶⁹ Merav Sarig, "Striking medics in Gaza temporarily return to work after talks with Hamas", (2007). BMJ,

<https://pmc.ncbi.nlm.nih.gov/articles/PMC2048866/#:~:text=Gaza's%20doctors%20decided%20to%20suspend,decide%20whether%20to%20renew%20it.%E2%80%9D>
<https://pmc.ncbi.nlm.nih.gov/articles/PMC2048866/>

a year later, he stated that 700 Hamas members had been killed, among them 250 police officers killed on the first day of fighting, and that all were active members of the organization. He added to this tally 150 “internal security” personnel, numbers that almost exactly matched IDF estimates for Hamas and Hamas-affiliated casualties.⁵⁷⁰

The Definition Controversy Regarding Direct Participation in Hostilities

Following the events of the Second Intifada and the adoption of a policy by the State of Israel of targeted killings of terrorist leaders and active cells, a legal controversy rose to the attention of the Israeli Supreme Court. In HCJ (High Court of Justice) 769/02 **The Public Committee against Torture in Israel et al. v. The Government of Israel et al. (2006)**,⁵⁷¹ which became known as the Targeted Killings case, the State of Israel argued for a broad interpretation of the term “Direct Participation in Hostilities” outlined in Article 51(3) to the 1st Additional Protocol to the Geneva Convention as an exception to the rule prohibiting the targeting of civilians in attacks unless and for such time as they take a direct part in hostilities.

This case arose as the IDF found itself in a position where it needed to target persons who were technically civilian in nature, as they did not fit the definition of combatants, but were of clearly hostile and persistent militant intent, mostly in regard to terrorist operations against the State of Israel. The HCJ widely interpreted the terms of Article 51(3) to the 1st Additional Protocol to the Geneva Convention such that the interpretation of the temporal condition of “for such time as they take a direct part in hostilities” should be read as applying to combatants who do not cease their militant functions except for rest periods, so they can be rendered targets of an attack even while not *directly* taking part in hostilities.

This formal approach, viewing all members of military wings of such armed groups as legitimate targets, was not widely accepted. Various human rights organizations adopted the position that the interpretation of the HCJ was too broad, and that any Palestinian not directly involved in combat operations was to be considered a civilian.⁵⁷²

In 2009, the International Committee of the Red Cross (ICRC) issued an interpretive guidance for the concept of “Direct Participation in Hostilities.” This guidance document included provisions that clarified that individuals may be lawfully targeted even when not actively engaged in combat if they are members of “organized armed groups”. According to the ICRC guidelines, organized armed groups constitute the armed forces of a non-state party to an international or non-international armed conflict,⁵⁷³ and include only those individuals whose continuous role is to take a direct participation in hostilities—what is referred to as a “continuous combat function.” This concept serves to clarify the conditions under which members of an armed group may be considered legitimate targets in non-international armed conflicts, even when they are not actively participating in hostilities at the time of the attack.

The criterion for lawful targeting of a person taking direct part in hostilities by serving a continuous combat function in an organized armed group is determined by an individual’s membership in an armed group and their function within it, rather than solely by their specific actions at a given moment, as required under the standard of direct participation in hostilities. In other words, unlike individuals who qualify as lawful targets only while actively engaged in hostile acts, such as an unaffiliated, singular insurgent who takes up arms in

⁵⁷⁰ <https://www.haaretz.com/2010-11-09/ty-article/hamas-admits-600-700-of-its-men-were-killed-in-cast-lead/0000017f-ee02-ddba-a37f-ee6edc3f0000>; https://www.terrorism-info.org.il/Data/articles/Art_20700/H_143_14_751174238.pdf

⁵⁷¹

https://supremedecisions.court.gov.il/Home/Download?path=EnglishVerdicts/02/690/007/e16&fileName=02007690_e16.txt&type=4

⁵⁷² https://www.btselem.org/statistics/casualties_clarifications,

⁵⁷³ The characterization as OAG applies without prejudice as to whether Hamas and the Palestinian militant organizations are Organized Armed Groups controlled by the Government of Gaza in an international armed conflict or are part of a non-international armed conflict between Israel and Hamas.

resistance, those who are identified as being members of an organized armed group with a “continuous combat function” remain legitimate targets even when they are not directly involved in combat at the time of the attack, such as when they are resting or off-duty.⁵⁷⁴ It is important to note that unlike Israel's **formal approach** (e.g., all members of military wings of organized armed groups are legitimate targets), **the ICRC's approach is functional** in nature and does not necessarily permit the targeting of members of non-state armed groups who do not perform a function that directly supports a combat role—for example, cooks, administrative staff, or legal advisors.⁵⁷⁵

In the early stages of the 2008-2009 operation, Israel targeted Gaza's police forces. Although these forces were armed like Hamas's military wing and were known to include Hamas supporters, Palestinian, Israeli, and international human rights groups argued they should be treated as civilians. Their argument rested on the claim that the police were not actively engaged in hostilities and were not formally part of Hamas's military wing, and were therefore entitled to protection under international law.

The UN Fact-Finding Mission on the Gaza Conflict, also known as the Goldstone Report, stated, “It is true that the police and the security forces created by Hamas in Gaza may have their origins in the Executive Force. However, while the Mission would not rule out the possibility that there might be individuals in the police force who retain their links to the armed groups, it believes that the assertion on the part of the Government of Israel that ‘an overwhelming majority of the police forces were also members of the Hamas military wing or activists of Hamas or other terrorist organizations’ appears to be an overstatement that has led to prejudicial presumptions against the nature of the police force that may not be justified.”⁵⁷⁶

In fact, a detailed analysis of Palestinian social media and the websites of armed factions in Gaza identified that 258 of the police officers killed (75.2%) belonged to Hamas's military wing, 12 were members of the Popular Front for the Liberation of Palestine (PFLP), eight belonged to the Al-Qassam Brigades, three were members of Palestinian Islamic Jihad (PIJ), four were “fighters” not affiliated with any specific organization, and one was linked to an Al-Qaeda's offshoot. Accordingly, 82% of the police officers killed were in fact affiliated with terrorist organizations, the majority of them serving as members in those organized armed groups.⁵⁷⁷

It bears noting that the UN Fact-Finding Committee also stated that:

- Membership in Hamas does not, in itself, render an individual a combatant.
- According to their interpretation of the functional approach, membership in Hamas's military wing does not, in itself, render an individual a combatant; only direct participation in hostilities qualifies a person as a

⁵⁷⁴ https://international-review.icrc.org/sites/default/files/reviews-pdf/2019-10/100_14.pdf, pp.271-3.

⁵⁷⁵ Yahli Shereshevsky, "Targeting the *Targeted Killings* Case – International Lawmaking in Domestic Contexts", *Michigan Journal of International Law*, 39:241 (2018), pp.248-9.

⁵⁷⁶ <https://www2.ohchr.org/english/bodies/hrcouncil/docs/12session/a-hrc-12-48.pdf> page 106-107; In the report he argues that 78 of the 178 policemen were accused of being al-Qassam members "on the sole basis that they were allegedly Hamas members" (para. 422), and points out that people are often "adopted" as "martyrs" by armed groups, despite having no involvement in hostilities. In the paragraph, he strongly implies that Orient was using loose connections like this in order to label civilians as soldiers. (para. 423). Both of these assertions are false. The people counted by Orient were not listed as

'shahid' (martyr) but as 'mujahid' (fighter) on the al-Qassam Brigades website which does **not** list people unless they were formally enlisted. As for the 78 people, it looks like Goldstone just counted the number of people on Orient's spreadsheet that didn't have elaborate biographies and assumed these were arbitrary designations.

⁵⁷⁷ <https://web.archive.org/web/20120119034727/http://www.jcpa.org.il/JCPAHeb/SendFile.asp?DBID=1&LNGID=2&GID=475>

legitimate target. This stands in contrast to the Israeli (and American) approach, under which membership in the military wing of an armed non-state actor is sufficient to establish lawful targeting.⁵⁷⁸

- Any public statement by the Hamas police chief regarding the military nature of his forces, their background, or objectives is dismissed in favor of his testimony before the committee, in which he asserts that his forces are purely civilian in character.⁵⁷⁹

- Any acknowledgment by Hamas's military wing concerning the military nature of police training is to be disregarded when contradicted by statements from Palestinian human rights organizations.

- All "ownership claims" of police officers killed by armed factions should be disregarded.

In our opinion, the last three points are not part of the legal interpretation debate between Israel's formal approach and the ICRC's functional approach, but rather a stance that effectively strips the latter approach of its substantive meaning. The practical implication is that if a member of Hamas's military wing—who can safely be defined as a fighter—joins the police, he is presumed to be immune from attack because he is no longer a member of an organized armed group but a civilian branch of power. We find this position difficult to accept, given the embedded nature of Hamas as an organized armed group in Gazan society, but also a difficult normative proposition.

On a factual level, it is important to note that beyond the overwhelming evidence of the targeted police officers' membership in organized armed groups during the opening salvo of the 2008 operation, the so-called "internal security force"—nominally defined as police—had conducted full-scale military exercises on multiple occasions and functioned as a fully capable paramilitary force.⁵⁸⁰

This is an illustrative third example of the "burden of proof" fallacy: not only is Israel required to provide evidence, and even raw intelligence, for any claims regarding the membership of police in Hamas's military wing, but all such evidence is nullified outright simply because the Gaza authorities or human rights groups in Gaza say otherwise. Nevertheless, to the best of our knowledge, current Israeli practice with regard to targeting direct participants in hostilities does abide by the HCJ ruling and depends on being able to demonstrate either active, direct participation in hostilities or a personal affiliation of the individual targeted with an organized armed group.

To conclude this part of our discussion, we note that although Justice Richard Goldstone, who headed the commission, later retracted many of the report's conclusions, the corrections left little impact on the humanitarian ecosystem.⁵⁸¹ This is the same phenomenon we described in the cases of Iraq's sanction regime (see Chapter 6), the 2006 Lebanon war (above in this chapter), and of course the false starvation claims in the ongoing Gaza War (see Chapter 1). Once a so-called "humanitarian" error becomes embedded in public discourse, it tends to take on a life of its own, independent of the original authors' intentions or positions.

⁵⁷⁸ Shereshevsky, "Targeting", p.249.

⁵⁷⁹ "An "obituary" published on a website of al-Qassam Brigades states that one of the training courses at the police headquarters in Gaza on 27 December 2008 was a "military refresher course". That is, however, contradicted by the police spokesperson and a number of the reports received by the Mission from NGOs." <https://www2.ohchr.org/english/bodies/hrcouncil/docs/12session/a-hrc-12-48.pdf>, pp.108-110.

⁵⁸⁰ https://www.terrorism-info.org.il/Data/pdf/PDF_19064_1.pdf, p.7; https://www.terrorism-info.org.il/Data/articles/Art_20445/H_255_12_2055059554.pdf

⁵⁸¹ https://www.washingtonpost.com/opinions/reconsidering-the-goldstone-report-on-israel-and-war-crimes/2011/04/01/AFg111JC_story.html

C. 2014 and Operation “Protective Edge”: Every Martyr is First and Foremost a Civilian

In the 2014 Gaza War (Operation Protective Edge), too, casualty narratives were shaped by inflation and focus of women and children casualties, systematic concealment of combatant deaths, and the structural limits of external observers.

Organizations relying on local sources reproduced these distortions, mistaking partial data for reliable evidence. This has resulted in casualty assessments that systematically overstate civilian harm while obscuring the scope of combatant losses.

By 2014, Hamas had vastly improved its information security practices in line with its adopted concealment policy—and its Interior Ministry’s instruction to define every “martyr” as a civilian (see Chapter 2).

As described in chapter 5, the GMOH initially claimed that “nearly half” of the casualties were women and children,⁵⁸² with OCHA echoing this claim and insisting that “at least” 77% of the dead were civilians.⁵⁸³ This claim was amplified by various media outlets, including an Associated Press investigation that, relying on Gaza-based information intermediaries such as local human rights organizations and with assistance from the Israeli organization B’Tselem, focused on 844 casualties from the fighting associated with strikes on extended family homes. The report concluded that over 60% of the dead were women, children, or the elderly. Only 96 of the dead (11%) were identified by AP/B’Tselem as fighters, based on open reports and family testimonies,⁵⁸⁴ echoing the HRW report on the Second Lebanon war in 2006.⁵⁸⁵ Similar, though smaller, studies were carried out by Amnesty International⁵⁸⁶ and HRW.⁵⁸⁷ All relied on selective incident reports rather than seeking to carry out a full or representative analysis of wartime casualties. All admitted, in the small print, that they lacked knowledge of Israeli targeting considerations or the ability to identify combatant or civilian status independently under wartime conditions. And yet, HRW definitively concluded, in the front of their reports, that “Israeli air attacks in Gaza investigated by Human Rights Watch have been targeting apparent civilian structures and killing civilians in violation of the laws of war”,⁵⁸⁸ and that “Israeli forces have brazenly flouted the laws of war... displaying callous indifference to the carnage caused”⁵⁸⁹

Of course, the cases selected were not representative of the war as a whole – the GMOH reported that women (263) and children (578) made up only 39% of the casualties, not 60%.⁵⁹⁰ B’Tselem’s June 2016 report conceded that the number of women and children among the casualties was even lower. Yet this was not the only flaw in wartime analyses by human rights organizations. Many attacks were condemned as actions that “directly and deliberately targeted civilians or civilian objects, which would constitute war crimes”, on the grounds that ““in some of the cases in this report Amnesty International has not been able to identify any possible military target.” However, several of these cases were later shown to have targeted and killed members of Hamas and Palestinian Islamic Jihad whose identities had been concealed from investigators at

⁵⁸² <https://www.aa.com.tr/en/world/nearly-half-of-gaza-fatalities-women-children-ministry/142823>
⁵⁸³ [chrome-extension://efaidnbmninnibpcjpcglclefindmkaj/https://www.ochaopt.org/sites/default/files/ocha_opt_sit_rep_17_07_2014.pdf](https://www.ochaopt.org/sites/default/files/ocha_opt_sit_rep_17_07_2014.pdf)

⁵⁸⁵ <https://apnews.com/general-news-national-national-098f6f687f4e41a1a9b7387e515e6a66>

⁵⁸⁶ <https://www.amnesty.org/en/documents/mde15/032/2014/en>

⁵⁸⁷ <https://www.hrw.org/news/2014/07/15/israel/palestine-unlawful-israeli-airstrikes-kill-civilians>

⁵⁸⁸ <https://www.hrw.org/news/2014/07/15/israel/palestine-unlawful-israeli-airstrikes-kill-civilians>

⁵⁸⁹ <https://www.amnesty.org/en/latest/news/2014/11/israeli-forces-displayed-callous-indifference-deadly-attacks-family-homes-gaza/>

⁵⁹⁰ <https://english.alarabiya.net/News/2014/12/14/Hamas-flies-drone-over-Gaza-during-anniversary-parade->

the time of the initial 2014 report.⁵⁹¹ Notably, the majority of these individuals, once outed, were indeed identified as combatants in the later, 2016 B'Tselem report- but with no retraction or correction of the initial 2014 report, or acknowledgment of false classification. By contrast, the IDF, citing undisclosed intelligence sources, estimated that approximately 45% of those killed were combatants. Of course, these figures were released only after the initial emphasis on women and children's deaths—and the corresponding concealment of male and combatant casualties—had already shaped public perception. As in all the cases discussed, the original claims resonated widely, while the subsequent corrections had minimal effect.

Human rights organization messaging was not oblivious to their ability to identify combatants – but insisted that “in all the cases described in this report and other similar ones during the conflict, the onus is on Israel to provide information concerning the attacks and their intended targets.”⁵⁹² In other words, the demand is that Israel (and by implication all countries) validate its IHL credentials by providing Hamas hard intelligence on **every** strike, which would enable them in turn to triangulate intelligence sources and methods – including human intelligence sources. Needless to say, the consequences would be predictable, and dire, for both the intelligence source and Israel's ability to target Hamas operatives in the future – which is why no country has ever complied with such requests.

It is worth noting that the primary source of information which enabled later identification of combatants by B'tselm was not its own covert investigations – but simply the belated competition on status and credit in the Palestinian public sphere. By August 2014, Palestinian Islamic Jihad alone had claimed 121 of its own as dead.⁵⁹³ Although Hamas attempted to avoid citing specific numbers of casualties as it had done in Operation Cast Lead, and as Hezboallah had consistently done in the Second Lebanon War, by February 2015 an official source within the movement admitted to AP that it had lost 400 fighters during Operation Protective Edge.⁵⁹⁴ As already noted, this fact alone should call into question the reliability of any future reports employing a similar methodology to the one employed by the human rights organizations mentioned above.

The task of distinguishing combatants from civilians is exceptionally difficult, even for organizations equipped with sophisticated intelligence-gathering capabilities, such as modern militaries. The work of humanitarian relief agencies and human rights organizations is further constrained by their reliance on local official sources; as a result, their reports inevitably lag behind these primary sources. If those sources are unreliable, then any derivative reports that rely on them will be similarly flawed.

To emphasize this point: the GMOH has never released the full list of those killed in the fighting during Operation Protective Edge. From the moment the ceasefire took effect in 2014 and until July 2015, one year after the conflict ended, it had published only 1,032 names. These were then used by Hamas-affiliated social media channels to compile extended casualty lists, the most comprehensive of which appeared in *Al-Ra'i* newspaper, listing 1,452 names. From the more comprehensive public list of those allegedly killed in the fighting (which overlaps only partially with the *Al-Ra'i* list), and from independent reports on Gazan social media, the IDF identified 936 fighters (44% of the war's dead) and 761 civilians (36%), and was unable to determine the status or identities of 428 others (20%). For the AP investigators, like the HRW investigators eight years earlier, these fighters remained invisible unless their families chose to publicly reveal their identities, while civilian victims, especially women and children, were highlighted far beyond their proportion in the total number of casualties.⁵⁹⁵

⁵⁹¹ chrome-extension://efaidnbnmnnibpcajpcglclefindmkaj/https://ngo-monitor.org/wp-content/uploads/2015/06/2014_Gaza_Conflict.pdf

⁵⁹² <https://www.amnesty.org/en/documents/mde15/032/2014/en>; pg.6

⁵⁹³ <https://www.timesofisrael.com/islamic-jihad-121-of-our-fighters-killed-in-gaza/>

⁵⁹⁴ <https://www.haaretz.com/2015-02-13/ty-article/report-finds-high-civilian-death-toll-during-gaza-war/0000017f-db93-d3a5-af7f-fbfff82e0000>

⁵⁹⁵ https://www.terrorism-info.org.il/Data/articles/Art_20841/H_105_15_1801538629.pdf

In the months that followed, it emerged that the Gaza Ministry of Health had omitted approximately 93 Hamas fighters from its published casualty lists. Some of these names were later released by the Palestinian Authority's health ministry, and by July 2015, they had been identified by the Meir Amit Intelligence and Terrorism Information Center.⁵⁹⁶ Not all these names appear to be included in B'Tselem's casualty lists. It is also possible that the reported figures included Palestinians executed by Hamas, victims of failed rocket launches originating from Gaza, or individuals who died of natural causes during the war. Without identifying these individuals by name, meaningful cross-referencing remains impossible.

In the decade since the 2014-2015 Israel-Gaza War, the Palestinian Authority has lost even more of its prior control over medical and statistical data originating from Gaza. Therefore, GMOH data in the current war can no longer be juxtaposed with data from the PCBS or the PMOH, as the two sources are not connected. Inter-organizational coordination between Hamas and Palestinian Islamic Jihad has strengthened, and collaboration with other armed groups has also improved—particularly in the realm of information security. Moreover, it is reasonable to assume that Hamas has significantly strengthened and refined its information security and manipulation mechanisms over the past decade. There is little reason to believe that organizations that failed to detect the exclusion or inclusion of Hamas fighters—and the recording of natural deaths in the Gaza Ministry of Health's 2014 casualty tallies—will perform markedly better under the far more challenging conditions of 2023-2025.

To be clear, we do not suggest that human rights organizations are acting with malicious intent. Rather, we argue that they lack access to critical information about many casualties' membership in organized armed groups—information that is deliberately withheld from them. As a result, they are inherently unable to independently verify the full composition of casualty figures while hostilities are ongoing.

Thus far, we have focused on casualty counts, and civilian/combatant attribution in past conflict. However, aspects of “humanitarian bias” relevant to the famine narrative also reared their head in past wars. Thus, when Gazan officials with indeterminate links to Hamas alleged on July 29 2014 that an Israeli airstrike⁵⁹⁷ or tank shells⁵⁹⁸ had struck Gaza's sole power plant, and it would be inoperable for at least a year⁵⁹⁹, HRW, Amnesty, and other NGOs immediately issued lengthy statements accusing Israel of “war crimes.” Philip Luther, Amnesty's Middle East and North Africa Director, alleged that “the strike on the power plant, which cut off electricity and running water to Gaza's 1.8 million residents and numerous hospitals, has catastrophic humanitarian implications and is very likely to amount to a war crime... The scales of the consequences of this attack are devastating and could amount to collective punishment of Gaza's population.”⁶⁰⁰ HRW condemned the “apparent Israeli shellfire that knocked out the Gaza Strip's only electrical power plant,” claiming that “damaging or destroying a power plant, even if it also served a military purpose, would be an unlawful disproportionate attack under the laws of war, causing far greater civilian harm than military gain.”⁶⁰¹

⁵⁹⁶ https://www.terrorism-info.org.il/Data/articles/Art_20841/H_105_15_1801538629.pdf, p.2.

⁵⁹⁷ John Vause and Ray Sanchez, “Life in Gaza: Misery heightened by war,” CNN, August 4, 2014, <http://edition.cnn.com/2014/08/01/world/meast/gaza-life/>.

⁵⁹⁸ Karin Laub and Peter Enav, “WATCH: Massive explosions in Gaza as only power plant and Hamas leader's home destroyed,” Ha'aretz, July 29, 2014, <https://web.archive.org/web/20150102083517/http://www.haaretz.com/news/video/1.607832>.

⁵⁹⁹ John Vause and Ray Sanchez, “Life in Gaza: Misery heightened by war,” CNN, August 4, 2014, <http://edition.cnn.com/2014/08/01/world/meast/gaza-life/>.

⁶⁰⁰ Amnesty International, “Israel/Gaza: Attack on UN school in Gaza a potential war crime that must be investigated,” July 30, 2014, <http://www.amnesty.org/en/news/israelgaza-attack-un-school-gaza-potential-war-crime-must-be-investigated-2014-07-30>.

⁶⁰¹ HRW, “Gaza: Widespread Impact of Power Plant Attack,” August 10, 2014, <http://www.hrw.org/news/2014/08/10/gaza-widespread-impact-power-plant-attack>.

Israel's insistence that there was no IDF activity in the area and that it was an errant Hamas rocket which has struck the plant, ⁶⁰² an all too credible claim given that 10-20 percent of launches from the Gaza Strip are misfires ⁶⁰³ was largely ignored, even though HRW acknowledged it lacked the tools to actually independently assess competing claims. Likewise ignored was the context – continued Israeli supply of electricity to Gaza throughout the conflict, as well as fuel for the impacted power plant. Finally, the power plant was repaired within weeks, not one year. None of the “catastrophic humanitarian implications” materialized, precisely because the “electricity and running water to Gaza’s 1.8 million residents and numerous hospitals” had never been solely dependent on this power plant. Presumably, the NGOs were aware of these basic facts, even if they lacked the capacity to determine precisely what had struck the power plant. Yet the humanitarian imperative—to mobilize action in defense of civilians, even at the cost of alarmist hyperbole—tends to take structural precedence over an accurate assessment of the overall situation. As a result, reports are often framed first in terms of catastrophic outcomes and moral certainty, accompanied by legal admonitions, while acknowledgments of evidentiary limits are relegated to the “small print.”

This does not imply malicious intent on the part of humanitarian NGOs. The “duty to protect” is, in itself, a benign and even commendable principle. However, it can come into tension with rigorous factual analysis and, in such circumstances, may be readily exploited by malign actors seeking to shape media narratives and political outcomes to their advantage.

Summary

To conclude our discussion in this chapter, we highlight again the “Certainty Mirage”. As with the GMOH data, there is a prevailing tendency to assume that if only one ostensibly authoritative source of “neutral” information exists—or a limited set of sources, such as UN reports or those from human rights organizations—its credibility must be accepted by default, simply because no alternative source exists. The ideological commitment to “believing civilians” often results in virtually no fact-checking of their accounts. At the same time, the burden of proof placed on states and militaries to provide conclusive evidence for their claims is fundamentally incompatible with the need to protect intelligence sources and methods.

In an ideal world, such an approach might be defensible, given the vital importance of early warning in preventing war crimes. However, in the absence of a systematic process for learning from past errors—and without consequences for false or misleading reports—the inevitable outcome is the unjust criminalization of lawful state actions and a diminished capacity to identify and prevent actual war crimes.

⁶⁰² Mitch Ginsburg, “IDF general: Israel did not target Gaza’s power plant,” Times of Israel, July 30, 2014, <http://www.timesofisrael.com/idf-general-israel-did-not-target-gazaspower-plant/>.

⁶⁰³ William Booth, “What’s Really Happening in Gaza (According to the Israelis),” The Washington Post, September 3, 2014, <http://www.washingtonpost.com/blogs/worldviews/wp/2014/09/03/heres-what-really-happened-in-the-gaza-war-according-to-the-israelis/>.

Chapter Eight: The Inverted Funnel: How to Study Conflict Zones?

Summary

Having thoroughly examined recurring errors concerning allegations of massacres, proportionality, and starvation—and how these mistakes have impeded the work of humanitarian organizations and researchers in past conflicts—this final chapter turns to the flawed methodologies that underlie those failures. Our goal is not to cast blame, but rather to contribute to the development of more rigorous and reliable approaches to investigating war crimes in future conflict zones.

First, we examine a phenomenon we call the “source criticism fallacy.” This occurs when a large number of sources are compiled without properly assessing their credibility, with little effort to filter out those that are unreliable or already disproven. It also involves mixing credible and non-credible sources to support a wide range of claims using only a few high-quality references.

This discussion will lead us to the problem we term “the inverted information funnel”: relying on a small number of sources that provide data controlled by Hamas either directly, indirectly, or through ideological partnership. These sources feed into a wide network of intermediaries, such as human rights organizations and the UN, which become primary sources for major media outlets. Their reports are repeatedly cited, redistributed, and ultimately presented as seemingly solid evidence, despite all relying on the same narrow, biased information base. From there, these false reports seep into Wikipedia and, likely, into AI systems, becoming “conventional knowledge” that underpins future reports, creating a vicious cycle.

To mitigate the influence of the “inverted information funnel” on analytical accuracy, it is essential to ensure that an apparent abundance of sources does not conceal a narrowly shared underlying source base, and that cited sources are genuinely independent rather than derivative of one another. This is a fundamental principle in source evaluation.

Additionally, we will discuss the “burden of proof fallacy”: the assumption that all information coming from the IDF (and other Western armies) is inherently unreliable unless independently verified by a media outlet with immediate access to the information at the moment of release. This is an impossible requirement given the sensitivity of intelligence sources. Conversely, claims made by Gazan citizens, civil society organizations, and medical professionals—perceived as neutral parties—are automatically considered credible unless proven otherwise. However, as we have seen, relying on testimonies from a closed, authoritarian, and mobilized society like Gaza, or even from activists, journalists, and volunteer doctors, requires extreme caution, cross-referencing of data, and, ideally, investigation and verification from primary sources whenever available.

Finally, we turn to the “illusion of certainty.” This bias arises from the difficulty many have in accepting the absence of definitive knowledge—specifically, the inability to determine the number or status of fighters and civilians among the casualties, whether in individual incidents or overall. Faced with this uncertainty, many are inclined to fill the gaps with unreliable sources rather than acknowledge the limits of what can be known.

In light of the structural fallacies identified throughout this chapter, we conclude by proposing a more effective methodology for investigating war crimes in conflict zones.

A. The Source Criticism Fallacy

Most chapters of this study are devoted to discussing specific claims of massacre, indiscriminate bombings, and starvation. However, our research cannot be concluded without raising troubling questions about the

methodology of the humanitarian ecosystem—one that has led to numerous errors, some of which we analyzed in previous chapters. The primary issue concerns source criticism and credibility assessment.

We return here to Lee Mordechai's comprehensive database not to single it out, but because it exemplifies the inherent flaws of a broader ecosystem. By uncritically aggregating numerous sources, it inadvertently serves as a mirror reflecting their various failures.

First and foremost, many of the sources that Mordechai categorizes as “alternative” to legacy media⁶⁰⁴ are, in fact, affiliated with Hamas or aligned with its resistance narrative. These sources—often cited in support of the most radical and sweeping allegations against the IDF—include social media activists, prominent Gaza-based figures, the BDS movement, networks of Palestinian organizations in the West, and *Al Jazeera*, among others. Notably, one such source is Euro-Med Monitor, whose sensational and unverified claims we examined in Chapter 3 and which was identified already in 2013 as having links to Hamas.⁶⁰⁵

The primary concern with sources like Euro-Med lies, however, not in their organizational ties to Hamas, as such affiliations, on their own, do not necessarily invalidate their claims. Rather, the problem is their blatant disregard for truth in favor of promoting Hamas's resistance narrative. For example, the organization's chairman, Rami Abdo, claimed that Hamas held only a few dozen hostages, most of them “soldiers”, a claim aligning with Hamas's position that any Israeli over 18 is a soldier—and even described the kidnapped Yotam Hayim, Alon Shmariz, and Samer Taalalka, who tragically died from IDF fire in northern Gaza, as soldiers. In reality, all three were civilians kidnapped from surrounding kibbutzim, and Taalalka was a Bedouin resident of Hura who never served in the IDF.⁶⁰⁶

Abdo also asserted that no Israeli women were raped on October 7—an offensive claim decisively refuted by extensive forensic evidence and, later, by the harrowing findings of the “Dinah Project.”⁶⁰⁷ In May 2025, Abdo claimed that some aid trucks entering Gaza were carrying burial shrouds “as a prelude to mass death”—a statement entirely devoid of factual basis.⁶⁰⁸ Nevertheless, Mordechai extensively relies on Abdo's tweets.

Mordechai also cites reports from Forensic Architecture, an organization led by architect Eyal Weizman, a prominent BDS activist. This fact alone does not discredit the organization's claims, but their repeated unreliability does. In a 2014 interview with *The Guardian*, Weizman claimed that houses in West Bank settlements were fitted with red roofs to prevent their being targeted by the Israeli Air Force—a claim that is both factually false and militarily illogical, and one he has never retracted.⁶⁰⁹ In October 2023, Weizman's organization attributed the damage to Al-Ahli al-Mamdani Hospital to a missile allegedly fired by Israel's Iron Dome defense system.⁶¹⁰ Despite overwhelming consensus that no Israeli weapon could have caused the observed damage in the hospital's parking lot (see Chapter 3), he has never retracted this claim.⁶¹¹

B. Fake Sources and AI-Generated Material

It should also be noted that assessing the credibility of reports from Gaza is exceedingly and increasingly complex and time-consuming. The reason for this is that social media and even mainstream media outlets

⁶⁰⁴ לי מרדכי, “עדות על מלחמת חרבות ברזל”, (מעודכן ל-9.3.2025), עמ' 6.

⁶⁰⁵ https://www.inss.org.il/social_media/behind-the-scenes-at-the-hague-involvement-of-red-green-alliance-elements-through-human-rights-organizations/

⁶⁰⁶ <https://x.com/RamAbdu/status/1737557824064876986>

⁶⁰⁷ <https://x.com/KharoubSireen/status/1737568926236565743> ; <https://thedinahproject.org/>

⁶⁰⁸ <https://jordandaily.net/two-of-five-gaza-aid-trucks-carried-shrouds-not-food-euro-med-monitor-chief/>

⁶⁰⁹ <https://www.theguardian.com/cities/2014/sep/01/what-can-forensic-architecture-reveal-about-the-conflict-in-gaza>

⁶¹⁰ <https://x.com/ForensicArchi/status/1724525673325199410>, <https://forensic-architecture.org/investigation/when-it-stopped-being-a-war>

⁶¹¹ <https://www.hrw.org/news/2023/11/26/gaza-findings-october-17-al-ahli-hospital-explosion>

tend to echo horrific images and testimonies without questioning their authenticity. For example, social media users circulated images of supposedly Gazan children allegedly shot by Israeli snipers, a child mourning his sister allegedly killed in an Israeli attack, and a woman holding a toy car in the ruins of her home. These images and many others—including quite a few pictures of starving children—were actually taken from civil wars and natural disasters in Syria, Yemen, Tajikistan, and other places.⁶¹² Many pictures showing bodies of children and other atrocities, circulated as genuine Gaza images, including a soldier aiming a rifle at a group of terrified children, were in fact generated by AI engines.⁶¹³

Many other horrific images emerging from Gaza are, of course, authentic, and there are also Israeli influencers who have disseminated misleading and false visuals.⁶¹⁴ The Gaza genocide allegations, however, are uniquely reliant on imagery to bypass factual scrutiny, suppress doubt, and incite audiences to action. In this regard, it is exceptionally effective—though not exceptional.

In the years ahead, it will become increasingly easy for activists to fake emotionally powerful, authentic-looking images, and correspondingly more difficult to detect forgeries. For that reason alone, researchers would be well advised to exclude unverified imagery from their methodological toolkit.

C. The Humanitarian Bias and the Inverted Information Funnel

Proponents of the Gaza genocide allegations project an appearance of drawing on a wide array of sources, including human rights organizations, UN agencies, mainstream media, alternative media, social media activists, and bloggers. Yet this apparent abundance is misleading: in the end, most of these sources draw from the same narrow pool of data, heavily influenced by Hamas, its sympathizers and affiliated organizations.

Let us begin with the obvious. All raw data on casualty figures during the conflict, as well as their age and gender breakdowns, rely exclusively on reports issued by the Gaza Ministry of Health. All media outlets, humanitarian organizations, and UN bodies depend on these figures, without the ability to conduct independent real-time assessments. In past conflicts, Gaza health data served as the main basis for all reports, with only minor additions or omissions by UN agencies. No independent, comprehensive data collection outside these sources has ever been conducted, making the entire reporting system primarily dependent on one source that is controlled by Hamas. We discussed this problem in detail in Chapter 5.

In describing both specific incidents and general trends, human rights groups, UN agencies, and major media outlets almost entirely rely on Gaza government data and eyewitness testimonies from local residents. These local residents form the basis of nearly all non-official reports from Gaza. While some of these witness accounts undoubtedly describe genuine Israeli military abuses, empirical experience from past conflicts indicates that such reports cannot be trusted without external verification, as argued in Chapters 6

⁶¹² <https://cedmohub.eu/war-of-narratives-syrian-imagery-falsely-illustrates-gaza/>, <https://www.timesofisrael.com/twitter-pictures-from-gaza-proven-to-be-false/>, <https://factly.in/this-viral-image-shows-an-emaciated-yemeni-child-dating-back-to-december-2020/>, <https://x.com/MustafaBarghou1/status/1765634413910466808>, <https://www.telegraph.co.uk/news/worldnews/middleeast/syria/10569648/Syria-dozens-die-of-starvation-in-Damascus-after-being-denied-food.html>, <https://x.com/stairwayto3dom/status/1779735149539668219?s=46>, <https://www.ccdcf-ye.org/en/2021/12/20/deformities-cancers-terrifyingly-increased-among-yemeni-children-due-to-us-saudi-prohibited-weapons>, <https://x.com/kahlissee/status/1749477025465958662?s=46>, <https://x.com/anasfoundation/status/788865869585666048?s=46>

⁶¹³ <https://www.dw.com/en/fact-check-ai-generated-images-of-children-in-gaza/a-68146699>, <https://www.nytimes.com/2023/11/02/us/politics/israel-gaza-war-misinformation-videos.html>, <https://x.com/gazawood1/status/1925885487014670386?s=46>,

⁶¹⁴ <https://www.france24.com/en/middle-east/20231121-pallywood-propaganda-pro-israeli-accounts-online-accuse-palestinians-of-staging-their-suffering>

and 7. Notably, there is a striking lack of Gazan eyewitness testimony describing Hamas's use of civilian infrastructure to launch attacks or conceal fighters—practices that are extensively documented by the IDF.

This remains the case even when the information is filtered through media outlets or Western organizations generally considered credible. In many instances, visual content and interviews conducted for the foreign media are produced by Gazan residents living in a society that upholds a dominant national narrative and discourages dissent.

In other words, even when a foreign news agency sends an external reporter into Gaza (when the IDF allows it or cannot prevent it, for example during ceasefires), their movements, residence, and interview opportunities are monitored by official Hamas fixers and their contact with interviewees is pre-arranged through local staff, much like in the former Soviet Union. This creates a system where all information leaving Gaza is filtered and processed to maintain tight control by Hamas authorities, preventing a full and balanced portrayal of the situation.⁶¹⁵ Sometimes, foreign journalists employ local "freelance" Palestinian reporters, some of whom are active Hamas operatives (like Hossam Shabat, mentioned earlier)⁶¹⁶ or openly sympathize with Hamas ideology, such as the BBC correspondent who praised Hamas attacks and recently called to "burn Jews, like Hitler did".⁶¹⁷

Similarly to foreign media, aid organizations and humanitarian NGOs rely on a local Gazan workforce subjected to direct and indirect Hamas pressure—even if they are not officially working for Hamas. For instance, in 2022, a worker from the aid organization World Vision was convicted by a Beer Sheva court of embezzling supplies and transferring them to Hamas. The court's verdict, publicly available, states that the oversight mechanisms of these organizations were ineffective: "The oversight mechanism operates from outside Gaza and is conducted primarily through remote review of documents received from within the Strip. In fact, all of the defendant's operational schemes rely, among other factors, on exploiting the distance and [inherent weaknesses] of remote oversight, as well as the ability to distort data through internal actors in Gaza." Another Palestinian worker who attempted to raise concerns about the defendant's ties to Hamas was interrogated by Hamas security forces, and a record of that interrogation was later found on the defendant's computer. This case illustrates the grave risks faced by local Gazans who challenge Hamas's interests, contradict its narrative, or speak out about the diversion of humanitarian aid.⁶¹⁸

There are numerous documented cases of Hamas operatives infiltrating humanitarian organizations—not only the well-known case of UNRWA, but also Médecins Sans Frontières (MSF) and even organizations with only a short-term presence in Gaza, such as World Central Kitchen (WCK).⁶¹⁹ These infiltrations have been extensively documented by the IDF and, in some instances, acknowledged by the organizations themselves. Yet many observers continue to treat these sources as authoritative, citing their presumed neutrality and professionalism—while overlooking both the documented infiltrations and the absence of meaningful acknowledgment or countermeasures (though WCK did fire identified Hamas infiltrators).

Well-intentioned international observers, whether from the UN, human rights organizations, the media, or certain academic circles, often accept and amplify biased or unsubstantiated claims of impending catastrophe rather than subjecting the underlying sources to critical scrutiny. **This stems from a phenomenon we refer to as "the humanitarian bias": well-meaning organizations and individuals, eager to mobilize**

⁶¹⁵ <https://apnews.com/article/middle-east-israel-tel-aviv-96c529f3a7313974808e1ed56251f0eb>, <https://honestreporting.com/the-fix-is-in-how-hitler-quoting-palestinians-are-warping-gaza-conflict-coverage/>, https://www.jpost.com/middle-east/reporters-in-gaza-will-need-hamas-approved-sponsors#google_vignette

⁶¹⁶ <https://x.com/nirhasson/status/1904465458830430617>

⁶¹⁷ <https://www.telegraph.co.uk/news/2025/04/26/well-burn-jews-like-hitler-did-says-bbcs-reporter-in-gaza/>, <https://www.jpost.com/diaspora/antisemitism/article-851608>

⁶¹⁸ תפ"ח 12074-08-16 מדינת ישראל נ' חלבי, 15.6.2022, ע"ע 14, 17.

⁶¹⁹ <https://www.jns.org/world-central-kitchen-fires-one-in-eight-gaza-staffers-over-alleged-terror-ties/>

international support for perceived victims, tend to uncritically amplify any testimony that appears to signal a “humanitarian catastrophe”. Once entrenched in the collective consciousness, who would dare challenge it and risk being cast out by the humanitarian community? As discussed in Chapter 6, once a false assumption is accepted as fact, those who question it are accused of lacking empathy for victims and of diverting attention through “irrelevant accounting”. In this way, the burden of proof is placed not on the false premise itself, but on those who attempt to scrutinize it—yet the belief in the existence and severity of the crisis depends precisely on that unexamined assumption.⁶²⁰

For example, on May 21, 2025, UN Under-Secretary-General for Humanitarian Affairs Tom Fletcher claimed that if aid to Gaza did not immediately enter the Strip, 14,000 infants would die in the "next 48 hours," while the IPC report he cited warned that a similar number of infants **might** suffer from acute malnutrition over the **coming year**.⁶²¹ This claim, like many others, was echoed without critical analysis by major newspapers like *The Guardian*.⁶²² Why focus on precise facts during a humanitarian crisis? What ultimately matters is the essential truth—not the details. Yet, of course, no meaningful truth can be reached without accuracy in the details.

From UN agencies, human rights groups, major TV networks, and leading newspapers, biased information—now considered "basic knowledge" and "common sense"—spills over into hundreds of medium and small outlets, including influential student newspapers.⁶²³ It also appears on Wikipedia and in international legal proceedings,⁶²⁴ from which it likely filters into AI models and future research reports, creating a vicious cycle.

Although UN agencies, human rights organizations, media outlets, and academic researchers within the humanitarian ecosystem often present their findings as based on diverse sources, in reality, they operate within an **inverted information funnel**. Virtually all data and descriptions ultimately converge on the narrow foundation of Hamas’s narrative and the conformist, tightly controlled discourse of Gazan society and pro-Palestinian activists abroad—two intertwined and mutually reinforcing forces.

This phenomenon ironically resembles the Western intelligence failure in assessing Saddam Hussein’s WMD program in the early 2000s. That assessment heavily relied on a single intelligence source: an Iraqi defector known as Curveball, managed by German intelligence. Although this information was later corroborated by other pieces of intelligence, it was ultimately revealed after the war that all those sources were false, related to Curveball, or reports and illustrations based on his claims.⁶²⁵

Another example is the infamous forgery of Hitler’s diaries in the early 1980s. To authenticate the diaries attributed to Hitler, *Stern* magazine consulted handwriting experts who compared them to authentic samples of Hitler’s writing. However, since the "authentic" samples were themselves forged by the same person who forged the diaries, the experts mistakenly concluded that the diaries were genuine.⁶²⁶

We illustrate the inverted information funnel and how it functions in the Gaza case in Figure 28:

⁶²⁰ See chapter 6.

⁶²¹ <https://x.com/MarkZloch/status/1925037417817411697?t=v8iDyqdwHqLMYE-YdCd9ew&s=08>

⁶²² <https://www.theguardian.com/world/live/2025/may/20/israel-gaza-hamas-aid-middle-east-crisis-live-news-updates>

⁶²³ Neil Bar, "Sad news: No Jews, No News" in Antisemitism worldwide report for 2024. Tel-Aviv University’s Center for the Study of Contemporary European Jewry (2025), pp.77-88.

⁶²⁴ <https://www.piratewires.com/p/how-wikipedia-s-pro-hamas-editors-hijacked-the-israel-palestine-narrative>

⁶²⁵ L. H. Silberman, and C.S. Robb, “The Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction: Report to the President of the United States (Washington, D.C.: Government Printing Office, 2005) p.93.

⁶²⁶ Robert Harris, *Selling Hitler* (New York: Arrow Books, 2009). p.160.

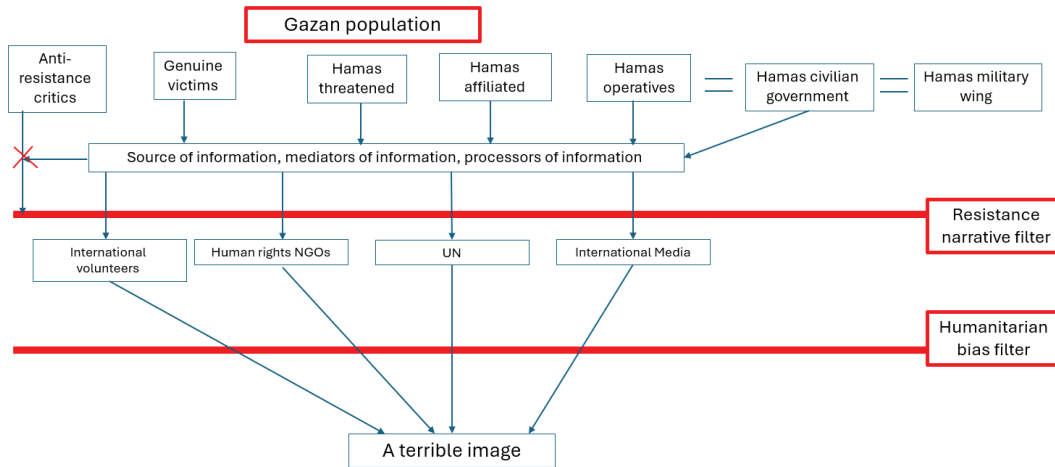


Figure 28: The Inverted Information Funnel in Gaza

D. The Burden of Proof Fallacy

As demonstrated in Chapter 7, the “burden of proof” fallacy rests on the assumption that any information originating from a governmental—especially military—source is inherently suspect unless independently verified by a media outlet with immediate, real-time access to the facts at the moment they emerge. This is an impossible requirement given the sensitivity of intelligence sources. Conversely, claims made by Gazan civilians, civil society organizations, and medical professionals—perceived as neutral actors—are automatically considered credible unless proven otherwise. Sometimes, even when proven false, they continue to be accepted.

This is amplified by a tendency to dismiss or downplay evidence that contradicts the humanitarian narrative. For instance, Amnesty International stated on November 23, 2023:

*Amnesty International has so far not seen any credible evidence to support Israel’s claim that al-Shifa is housing a military command centre.*⁶²⁷

Similarly, Human Rights Watch argued:

*The Israeli military claims that Hamas has its headquarters underneath al-Shifa hospital, and that Hamas military officials are inside the hospital. HRW cannot corroborate this allegation.*⁶²⁸

This skepticism persisted despite US intelligence confirming key Israeli claims, including assessments that hostages were being held in the hospital. Such rejection had tangible operational consequences, including a “deterrent effect” on rescue efforts and on the evacuation of civilians sheltering within the hospital. The demand not to act inside the hospital “without evidence” allowed hundreds of armed fighters to evacuate along with Gazan civilians⁶²⁹ and even execute two Israeli hostages either in or near the hospital.

When IDF forces entered Shifa, they were almost immediately accused of finding no tunnels:

⁶²⁷ <https://www.amnesty.org.uk/files/2023-11/Amnesty%20International%20briefing%20-%20Israel%20Gaza%20crisis%2023%20Nov%202023.pdf?VersionId=9Jp8Tjlb5zEqygKLPfuzdAqh8USWQEfE>

⁶²⁸ <https://x.com/hrw/status/1722659776427868597>

⁶²⁹ <https://www.reuters.com/world/middle-east/us-believes-hamas-used-al-shifa-hospital-evacuated-before-israeli-operation-2024-01-03/>

The military made no mention on Wednesday of finding any tunnel entrances in Al Shifa. It has previously said that Hamas had built a network of tunnels under the hospital. Both Hamas and hospital staff have denied this.

Hagari said the search would continue "in a precise way and in accordance with intelligence [...] in order to gather more details and to discover more assets."⁶³⁰

However, even after the IDF released forensic evidence of tunnel infrastructure within the hospital premises,⁶³¹ and even security camera footage showing the kidnapping of an Israeli and a Thai civilian by armed militants,⁶³² media outlets continued to claim they could not “independently verify” the physical evidence of Hamas’s use of the hospital—an impossible demand. They also required the IDF to refrain from handling physical evidence before presenting it to journalists, which is entirely unrealistic. Notably, videos released by the Gaza Health Ministry about conditions in the hospital at the time did not face similar verification demands.⁶³³

Ultimately, as evidence of Hamas military activity at Shifa Hospital continued to accumulate, critics shifted the goalposts even further: it was no longer sufficient for Israel to demonstrate **any** Hamas presence. Instead, it was now expected to prove that Shifa served as Hamas’s main command center, and that it was actively used as such during the Israeli raid:

*While the underground tunnel uncovered by Israeli forces after the raid does point to a possible militant presence underneath the hospital at some point, it does not prove that a **command node** was operating there **during** the war.*

What we’re really lacking here is a confident understanding of the fourth dimension, which is time. When were various elements of the hospital being used in certain ways? When were the tunnels beneath the hospital complex being used in certain ways?⁶³⁴

In other words, even after the demand for “conclusive evidence” as a precondition for action was met—at the cost of giving Hamas time to hide fighters, execute hostages, and erase much of the physical evidence of its presence—the IDF’s findings were still dismissed. The physical evidence it presented of Hamas’s use of the hospital was rejected on the grounds that it did not prove ongoing Hamas activity **during the raid itself**. Conversely, when the IDF conducted the second raid on Shifa unexpectedly, releasing footage of gunfire inside the buildings⁶³⁵ and evidence of many high-ranking Hamas arrests,⁶³⁶ forensic evidence and verified testimonies were dismissed simply because they contradicted accounts provided by civilians and medical staff:

None of the patients or medical staff who spoke to Human Rights Watch said that they saw Palestinian fighters inside the hospital compound during Israeli military operations. This is consistent with similar interviews published by the international media.⁶³⁷

⁶³⁰ <https://www.reuters.com/world/middle-east/israeli-military-says-weapons-found-al-shifa-hospital-2023-11-15/>

⁶³¹ <https://edition.cnn.com/2023/11/20/middleeast/gaza-tunnel-shaft-al-shifa-hospital-intl-hnk/index.html>

⁶³² <https://www.bbc.com/news/world-middle-east-67469591>; <https://www.reuters.com/world/middle-east/israel-says-55-metre-fortified-tunnel-found-under-gazas-shifa-hospital-2023-11-19/>

⁶³³ <https://www.cbsnews.com/news/israel-palestine-hamas-alshifa-hospital-gaza/>

⁶³⁴ <https://www.washingtonpost.com/world/2023/12/21/al-shifa-hospital-gaza-hamas-israel/>

⁶³⁵ <https://videoidf.azureedge.net/abb8113f-52c1-45c8-8211-75f506715bd6>

⁶³⁶ <https://www.idf.il/189617/>

⁶³⁷ <https://www.hrw.org/news/2025/03/20/gaza-israeli-military-war-crimes-while-occupying-hospitals>

It is worth noting that Israeli claims about hospitals being used to hold kidnapped civilians are also supported by the public testimony of the first hostage released prior to the ground operation in Gaza: ⁶³⁸

The minute we came in, all the nurses were standing there and going like this [cheering].

These testimonies—along with those of other released hostages who reported being held in hospitals ⁶³⁹—are, of course, conspicuously absent from the statements of the human rights organizations that harshly condemned Israeli raids on Gaza’s hospitals. These organizations simply ignored the accounts and failed to criticize Hamas for exploiting the protected status of medical facilities.

It should be emphasized that Israeli sources (or Palestinian sources opposing Hamas) are not necessarily credible, but they should at least be considered part of the evidentiary picture—especially if supported by forensic documentation, such as authentic, verified photographs, videos, or documents. Given the sensitivity of intelligence sources, the mere fact that the military does not immediately refute claims with definitive evidence does not mean they are false; it simply means we must remain skeptical. Furthermore, when there is a clear contradiction between forensic evidence and local testimonies, the credibility of the local testimonies should be doubted, not that of the forensic evidence. When contradictions are systemic rather than isolated, as in the case of the Jenin massacre allegations and Hamas’s use of medical facilities during the current war, serious doubts should also be cast on the methodology of the UN agencies, human rights organizations, and media outlets that rely on unverified local testimonies as their main source of information.

E. The Certainty Mirage

The call to remain skeptical when the evidentiary picture is unclear echoes the "certainty mirage" discussed in previous chapters, especially Chapters 5 and 7. This is the tendency to quickly fill gaps in knowledge with unreliable sources simply because no other sources are available. We emphasize again: **The mere fact that a single source provides essential data—such as casualty figures—does not, in itself, confer credibility. There is no inherent logical connection between exclusivity and reliability.** Every source requires a process of critique, verification, cross-referencing, and awareness of its limitations and biases, whether it is the only source or one of thousands. It is better to be troubled by doubts than to adopt a false picture.

This applies to relying on GMOH data for the age and gender breakdowns of casualty figures, or on testimonies from relatives and neighbors regarding the identities of fighters or civilians during the 2006 and 2014 conflicts—methods that failed to identify even those combatants whom the terrorist organizations themselves acknowledged as killed in action.

F. Catastrophic Accusations and Silent Retractions

In the course of our research, we encountered grave and sweeping allegations related to the war, including claims of genocide and other serious crimes. For example, Amnesty International’s report and the legal proceedings against Israel relied on the following claims to support these allegations:

- UNRWA’s claims about aid collapse after the Rafah operation—70% decrease in aid entry (Chapter 1).
- The UN’s claims about 500 trucks entering Gaza daily before the war, based on an erroneous calculation and cited in a closed loop (Chapter 1).
- The GMOH’s early claim about the age and gender breakdown of casualties—70% women and children—which was echoed by the UN (Chapter 5).

⁶³⁸ https://www.youtube.com/watch?v=_T6fM4cwJcc

⁶³⁹ <https://www.cbsnews.com/news/israel-gaza-hostage-says-hamas-ally-islamic-jihad-held-her-in-hospital-civilian-homes/>; <https://www.cnn.com/2024/01/04/middleeast/israel-hostage-doron-katz-asher-interview-hamas-gaza-intl/index.html>

All these claims were conclusively disproven, to the point that the original claimants were forced to retract them—or at least ceased to repeat them. Yet while their false assertions of a humanitarian catastrophe echoed widely across media, humanitarian, and academic circles, the subsequent corrections were issued quietly, without public acknowledgment, with minimal transparency, and in language so vague as to obscure their significance.

Unsurprisingly, these corrections received little to no traction in media, diplomatic, or activist circles. In fact, the original flawed claims continued to circulate long after their authors had quietly withdrawn them—particularly those concerning the alleged aid crisis in May and the fictitious figure of 500 trucks.

This phenomenon is not new. Our research reveals a strikingly similar pattern in earlier cases, such as the debunked claims of exaggerated child mortality under sanctions in Iraq (Chapter 6) and the flawed estimates of female casualties during Operation Protective Edge (Chapter 7). We believe this dynamic is a key factor behind the repeated failure of humanitarian organizations, and the researchers and journalists associated with them, to learn from past errors and avoid recurring methodological fallacies. This is not merely a problem in its own right; the methodological failures we have outlined are likely to recur unless those responsible face meaningful public and academic accountability.

G. How can we effectively investigate war crimes during conflicts?

Most of our research has focused on a comprehensive critique of the "genocide" thesis in the Israel-Hamas War from October 7 2023 to June 1 2025, specifically on claims of massacres, disproportionality, starvation, and the methodology underpinning these claims. However, nothing in our discussion suggests that effective research into war crimes in conflict zones such as Gaza is impossible, or that claims by alleged victims should be automatically dismissed, or that one should blindly trust Western militaries like the IDF. The methodological problems we identified do highlight the importance of carefully cross-verifying claims, ranking them by credibility, and maintaining awareness of issues such as the "inverse information funnel," with efforts made to utilize primary sources whenever possible.

As shown in Figure 30, it is preferable to prioritize primary sources over secondary ones, and testimonies from civilians living in open societies over those in closed societies. The reason is that the former can challenge their government's narrative, whereas those in repressive societies face greater risks and tend to rally behind the national narrative, especially during periods of war and struggle. For example, in Israel, many thousands—including active-duty reservists—publicly opposed Netanyahu's war policies and expressed their views freely in local and international media, with many Israelis, including retired generals and former chiefs of staff, accusing the IDF of war crimes. In Gaza, however, those who challenged Hamas's narrative risked, and continue to risk, their lives. This does not mean testimonies of civilians from closed

societies should be dismissed, but they must be cross-checked with open society sources. As a general rule, testimonies originating from open societies tend to carry greater credibility.

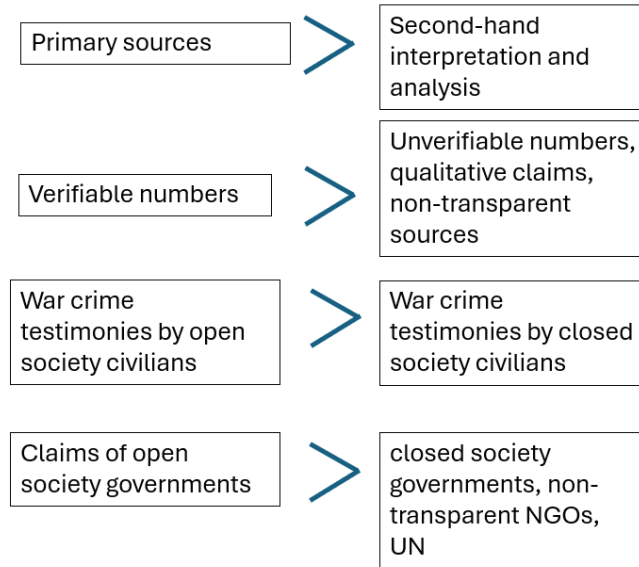


Figure 29: Prioritizing Sources in the Investigation of War Crimes in Conflict Zones

Acknowledging these differences in credibility, we propose in Figure 30 a methodological framework for verifying war crime allegations in totalitarian or closed societies such as Gaza:

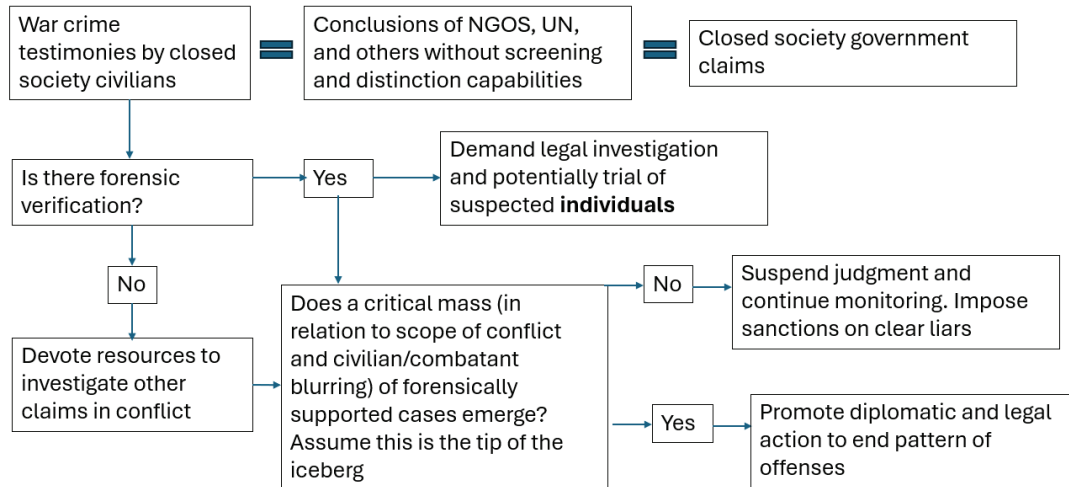


Figure 30: Recommended Methodology for Investigating War Crimes During Conflict

Throughout this study, we have shown how UN agencies and human rights organizations have repeatedly failed to revise their flawed methodologies, even after those shortcomings were publicly exposed. We hope that our findings, along with the alternative methodology we propose, will help rekindle critical discussion on these pressing issues.

Summary and Conclusions

This study has demonstrated that reports produced by UN agencies, human rights organizations, major media outlets, and scholars within the broader humanitarian ecosystem are plagued by systemic and serious methodological flaws—especially those advocating the “genocide” narrative, including allegations of intentional starvation, mass killings, and targeted or disproportionate bombings. These claims rely on misleading statistics, unfounded apocalyptic projections based on weak data, and the conflation of credible and unverified evidence. In particular, unreliable testimonies are used to support claims of deliberate mass killings and starvation, reflecting a desperate search for a “smoking gun” to substantiate unfounded allegations of genocide.

Moreover, the “inverse information funnel” phenomenon—where the illusion of diverse sources masks a core of biased data—combined with the systematic neglect of the military context of urban warfare, Hamas’s strategic conduct, and the misuse of military and legal terminology, further compounds these methodological flaws.

To understand the depth of this phenomenon, we compared the organizational and media coverage of the 2023-2025 Gaza Israel War with previous and contemporary conflicts, both in Israel and regionally. The comparison revealed a troubling pattern: assertive statements by international bodies claiming wide-scale civilian killings, absence of combatant harm, and severe humanitarian crises were often baseless. When these claims were later debunked, the subsequent retractions received a small fraction of the media, academic, and professional attention that had accompanied the original allegations, which often continued to circulate.

This pattern is especially pronounced in the international coverage of the 2023–2025 Gaza-Israel War during the period examined—from October 7, 2023, to June 1, 2025—owing to the exceptional density of events and information. Absent meaningful consequences in the public, media, academic, or legal spheres for false claims later proven unfounded, this dynamic is unlikely to change, whether in research, institutional practice, or global public perception.

Finally, we must express our deep concern about the trivialization of the concept of “genocide” by those we have criticized. Just as unchecked inflation devalues currency, the casual or exaggerated use of the term “genocide” risks undermining its real meaning. If every urban conflict involving significant human suffering is labeled genocide—regardless of a lack of systematic intent to destroy a group—the concept will lose its emotional and legal weight, becoming a hollow political tool. Should a genuine threat to annihilate an entire people or group ever arise, the erosion of sensitivity to the term “genocide” may lead to a delayed or diminished response—ultimately endangering the very population the term was meant to protect.

Appendix 1: Published and pre-published Sources of Injury Patterns in the 2023-2025 Gaza War and Forensic Analysis of PAMA Allegations on Children Shot by IDF Snipers

This appendix supplements our critical analysis in Chapter 3 (pp. 157–165), where we assess the reliability of testimony given by doctors affiliated with the Palestinian American Medical Association (PAMA) concerning alleged deliberate head and chest shots by IDF snipers targeting Palestinian children.

In the main text, we reviewed several quantitative studies on injury patterns during the Gaza War and demonstrated that the data strongly contradicts the PAMA doctors' claims of treating large numbers of children allegedly shot daily in the head or chest. Since that analysis was completed, additional studies have been published, and their findings likewise fail to support the PAMA narrative.

We also present here a professional assessment by Dr. T. Forcht Dagi, MD—Deputy Chair of the Surgical Specialty Board in Neurological Surgery at the Royal College of Surgeons of Edinburgh—regarding X-Ray images of head injuries publicized by the PAMA-affiliated doctors.

Part I: summary of the relevant findings on injury patterns during the Gaza War of 2023-2025

Study	Description	N	% gunshot head/chest wounds	% firearm injuries children	Area/hospital	Period
El-Taji O et al ⁶⁴⁰	Survey of 78 international healthcare workers	23 726 trauma related injuries 6960 injuries related to weapons	6.7% of total weapon injuries	No gender/age breakdown	North Gaza 8 (10) Gaza City 11 (14) Middle Area 18 (23) Khan Younis 32 (41) Rafah 7 (9)	most data reflected deployments that concluded between May 2024 and January 2025
MSF ⁶⁴¹	Routinely collected medical data from six of the MSF Operational Centre Brussels supported health facilities in Gaza	22 637 patients	11.3% Gunshot wounds Vs 83% bombs and shellings. No area of injury breakdown	Under 15 children make up 29.7% of all injured. No further breakdown based on injury type	Al Aqsa Hospital, Al Mawasi PHC, Al Najjar Hospital, Deir el Balah PHC, Khan Younis PHC, and MSF Field Hospital	Jan 1 to Dec 31, 2024
Alasarr et al ⁶⁴²	Available Patient records in Al-Aqsa hospital	2,000, of which 500 traumatic injuries	No head injuries , no breakdown based on type of injury	No breakdown	Al Aqsa Martyr's Hospital	October 2023 to September 2024
Alsalsqawi & Villar ⁶⁴³	Data from 110 consecutive in-patients who occupied one area of the Shuhada al-Aqsa Hospital and who had been admitted through the hospital's Emergency Department	110 patients	8.1% gunshot injuries Vs 86% explosive injuries 6/128 fractures to skull 2 injuries to head out of 187 injuries (1.08%).	No breakdown of gunshot injured by age but all gunshot injuries male (65.45% of all injuries)	Al Aqsa Martyr's Hospital	October 2023- May 2024
WHO ⁶⁴⁴	Daily reports from the Emergency Medical Teams (EMT)		Major head/neck/spine injuries 3.2% of all EMT injuries	No age/gender breakdown	All Gaza	October 2023- July 2024
Al Hseinat et al ⁶⁴⁵	362 trauma patients treated at a major trauma center in Gaza	362	Gunshot 31.2% Vs 48.3% Blast No head injuries			

⁶⁴⁰ El-Taji O, Ali A, Alser O, Ghali A, Jomaa A, Sultan MJ, Irfan B, Jafar A, Qandil M, Jeelani A, Darwish A, Mokhallalati A, McMonagle M, Rose V, Mamode N, Khan S, Maynard N, Nott D, Chai AS; International Medical Responders for Gaza collaborators. Patterns of war related trauma in Gaza during armed conflict: survey study of international healthcare workers. *BMJ*. 2025 Sep 25;390:e087524. doi: 10.1136/bmj-2025-087524. Erratum in: *BMJ*. 2025 Oct 10;391:r2114. doi: 10.1136/bmj.r2114. PMID: 40998470; PMCID: PMC12462629.

⁶⁴¹ Nicolai, Meinic et al. **War wounds caused by explosive weapons in Gaza: data from a 2024 study by Médecins Sans Frontières**. *The Lancet*, Volume 406, Issue 10504, 687 - 688

⁶⁴² Alasarr M, Awad M, AbuZaida EAO, Cheema M, Chaudhry T, Youssef F, Bsaiso H. Patterns of surgical workload and trauma injuries in a Gaza hospital. *East Mediterr Health J*. 2025;31(2):68–72. <https://doi.org/10.26719/2025.31.2.68>.

⁶⁴³ Alsalsqawi A. & Villar R; **Patterns of Injury in a Gaza War Hospital**. <https://www.medrxiv.org/content/10.1101/2024.06.27.24309570v1>

⁶⁴⁴ WHO; Estimating Trauma Rehabilitation Needs in Gaza using Injury Data from Emergency Medical Teams. 30 July 2024. <https://www.emro.who.int/images/stories/palestine/Rehab-injury-estimate-Gaza.pdf>

⁶⁴⁵ Al Hseinat, Laith and Othman, Ahmad Khaled and Abo Hashim, Marwan and Aolymate, Moha'dKheir and Atoom, Youssef Mohammad Eid and al Mistarihi, Obaidah and Aldweeri, Mohammad and Abo Odeh, Hamzeh and Al Badaine, Ashraf Ahmad,

The El-Taji et al. study involving self-reporting by 78 international medical volunteers (based on dates, these were not the same volunteers as in the PAMA group) indicated a much higher proportion of gunshot wounds than the other published studies. These volunteers also reported a much higher proportion of gunshot wounds to the head/chest as a portion of all gunshot wounds. This may be indicative of an observation bias (i.e., head/chest gunshot victims being directed to international volunteers by the GMOH, or else their specializations lending themselves to treating gunshot wounds rather than explosion wounds), or of recall bias. Nonetheless, these wounds still amounted to only 6.7% of all injuries. Between February and April 2024, the Gaza Ministry of Health recorded 11,755 injuries—an average of 130 per day. Applying the 6.7% ratio to this total suggests approximately 8.71 gunshot head/chest injuries per day across Gaza. Even assuming that 20% of these cases involved individuals under 13, that every single one was caused by a sniper bullet, and that all of them were directed for treatment by the 99 PAMA physicians, the total would still amount to only about 1.74 pediatric gunshot head/chest injuries per day across all PAMA physicians combined. The average stay of the PAMA physicians in Gaza was 18-days (a combined 254 weeks among 99 volunteers), which means that on the average each could not have encountered more than 0.31 such injuries in children during their entire stay – let alone their claim that: “*Specifically, every one of us on a daily basis treated pre-teen children who were shot in the head and chest*”⁶⁴⁶

This remains true even if every improbable assumption listed above were correct — that all head-shot injuries were caused by snipers, that every shot was directed at PAMA volunteers, and that the proportion of pre-teen children among gunshot injuries matched their share in the mortality data.

Part II: Forensic Assessment of the X-Ray Image Published by the [New York Times](#)

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November 19, 2025

To Whom It May Concern,

I have been invited to comment on X-rays presented in the New York Times in support of a statement that Israeli snipers expressly targeted children in Gaza and shot them in the head.

I am a professor of neurosurgery and a former combat neurosurgeon. I have taken care of scores of penetrating missile and shrapnel injuries. I have had special operations training that included sniper skills. I have edited one of the US editions of the NATO Handbook of War Surgery, and a textbook on penetrating missile injuries that has become a standard textbook on the subject.

I have studied the X-rays that were given to me to review. To a reasonable degree of medical certainty, here is what I believe can be said about plane X-ray images and computerized tomography images of penetrating missile injuries in general, and the images that I received:

(1) All penetrating missile injuries create an entrance wound and a wound tract. In transferring their energy to the brain, the wound tracts expand and then contract. The size of the wound tract is related to the energy imparted by the missile. That, in turn, is a function of the mass of the missile, its velocity, whether it yaws, and whether it disintegrates. When penetrating wounds exit or perforate the skull, they create an exit wound as well.

(2) High velocity missile injuries, which is the category into which military bullet wounds, including sniper injuries, generally fall, and often perforate the skull. They are characterized by small entrance and large exit wounds when they perforate. Whether or not they perforate or exit the skull depends on the energy with which they strike.

(3) Generally speaking, military ammunition will perforate the skull at the distances involved in urban warfare.

(4) The only wounds that penetrate without perforation tend to be relatively low energy shrapnel wounds, ricochets, or other bullets and missiles that have expended or dissipated much of their energy before reaching the patient.

(5) The size and shape of the bullet tract, how much tissue is damaged, and how much haemorrhage ensues is highly variable.

(6) Military sniper wounds generally involve high velocity, high energy military ammunition designed for accuracy and for long distance shooting on the order of several hundred meters.

(7) In modern Western warfare, only a small number of calibers is typically encountered in sniper wounds. These include the 7.62 NATO, the .338 Lapua, the .300 Winchester magnum, and sometimes the 5.56 round. While other military and civilian calibers may be also used, their characteristics, and the wounds they produce, are very similar.

(8) The bullets may be jacketed or not. Jacketed rounds (bullets) are less like to deform when they strike, but unjacketed bullets generally do deform, and are more likely to disintegrate.

(9) Examples of circumstances under which rounds would not necessarily deform include a round fired in the air, expending its energy, and then simply falling to earth after reaching the apogee of its parabolic trajectory. Under these circumstances, a projectile initially discharged with high energy might dissipate its energy and result in a low energy wound.

(10) One of the lateral scout images purporting to show an intracranial round in the X-rays I reviewed, for example, shows a bullet pointing downward without visible deformity. The entrance wound is not shown. Assuming that (a) the bullet is really in the cranium and that (b) the CT scan is authentic rather than falsified (it would be quite easy, for example, to incorporate an unfired bullet that is not in the skull at all within the CT scan image), the most likely explanation is a small entrance wound at the crown of the skull, parallel to the course of the Xray beam and therefore all but invisible on the X-ray view presented. This kind of wound could be explained by a bullet that struck with low velocity and low energy without deformation.

(11) A CT scan uses X-ray technology. A full set of CT images can generate an accurate representation of the location of a bullet in the brain. The New York Times report, however, produced a limited set of images. A partial set of images may be deceptive. In this instance, the images that were produced were insufficient to diagnose the location of the bullet. Under certain circumstances, a bullet that is outside the skull may appear or may be made to appear as if it were inside the skull. That is quite possibly the situation here.

(12) The only way to confirm the authenticity of the imaging that purports to show a sniper wound is examine the full set of CT images and X-rays obtained at the time of the patient's admission. These images would have to be verifiably linked to the patient at all times and authenticated to make sure they had not been tampered with (the chain of custody). It is equally important to carry out a forensic examination of the imaging metadata alongside a physical examination of the bullet itself.

(13) Without confirmation of the chain of custody and of authenticity no definitive or dispositive conclusion can be reached.

(14) It is practically impossible, in any case, to surmise the intent and the identity of the shooter from imaging studies alone.

(15) The images presented in the New York Times report are not adequate to reach a conclusion, within a reasonable degree of medical certainty, regarding their source, the nature of the injuries they purport to document, the types of bullets involved, the source of the bullets, the distance from which they were fired, or the energy with which they impacted.

Yours respectfully,

T Forchi Dagi

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