Gaza War

“Impact of medical Intervention”

Gaza war: A series of tragic event that led to loss of life and property of individuals. This work hopes to examine the extent of the effect of the war on the lives of affected individuals and necessary recommendation given to help in the situation.

I accessed the dataset with excel to have a look.

Cleaning: Firstly, I checked for blanks across columns, I found blanks in injury column which could either mean there was no injury or the record was not captured. The blank rows were 149 (37%) of the total available data, I replaced with 0 indicating there were no record for the rows.

Note: Data analysts might fill with mode, median or mean but then again this can be a situation of no injured individuals so in case of no injured individuals data entry specialist should do well to document accurately by replacing with zero or accurate information should be provided by the data collection team.

Moved data to Power BI for further manipulation, at first observation, I found that the city had 5 (4%) blanks cells which I filled with Unknown. I replaced the injured columns blanks with 0.

I figured that the data type of injuries is decimal and I changed it to whole number. There was an error of 3 5 instead of 35 in the fatalities column which was corrected.

Key Findings:

14 cities in are involved in the war, and the effect of the war is seen in the loss of lives, properties and the injuries incurred.

Fatalities Overview

A total of count 2 million fatalities were recorded during the Gaza war and an examination into cities presents, Haiti with the highest fatality count of 79,574 fatalities, followed by Gaza City 712,444, Deir Al-Balah 337,880, North Gaza 271,817, and Rafah 78,733, with other regions following. The causes of these deaths included sepsis as the major cause of death, Asphyxiation follows then hemorrhagic shock, Traumatic Brain Injury, Crush Injuries and burns.

The major incident types causing the deaths were airstrike, the major incident type, followed by building collapse, missile strike, Artillery sheeting, Racket attack and coming rear is Drone strike

Fatalities by Cause revealed that lack of medical access was the primary cause, accounting for approximately 85% of deaths, while direct conflict (airstrikes, missile strikes, artillery shelling, etc.) accounted for 15%.

Recommendations

Note: 2million is a lot of people when it comes to death, we hope to explore possible solutions to reduce the number of death victims. Sepsis a cause of the deaths is an infection from an untreated wound, Asphyxiation is loss of consciousness due to inability of the body to produce oxygen this shows that this leading cause of fatality can actually be managed if there were medical access.

1. Improved Medical Access: Establish emergency medical facilities in regions with high fatality rates. Mobile medical units should be deployed closer to conflict zones to provide immediate care.

2. Medical Training & Readiness: Medical professionals should be equipped with specialized training to manage prevalent fatal conditions such as sepsis, asphyxiation, and hemorrhagic shock.

3. Paramedic Training: Paramedics should be trained to handle emergency trauma care efficiently and administer life-saving interventions before reaching full medical facilities.

4. Targeted Medical Supply Distribution: Medical supply shipments should prioritize cities with the highest records of specific causes of death e.g. regions with high sepsis cases should receive antibiotics and infection-control resources.

5. Additional Infrastructure: Field hospitals should be built and reinforce existing hospitals to ensure continuity of care during peak conflict periods.

Injuries Overview

The total Count of injured individuals recorded were about 303,000.

The city with the highest number of injuries was Gaza city with about 3 million victims, followed by Deir Al-Balah about 6,613, North Gaza, Haiti, Jabalia making top 5 cities by rank.

The primary causes of injuries were Asphyxiation about 281,349 cases, Hemorrhagic shock accounting for about 12,747 cases followed by Sepsis, Traumatic brain injury. Crush injuries, Burns.

Injuries by incident type presents building collapse and the major incident type followed by missile strike, then artillery shelling while rockets attacks, airstrikes and drone strikes came rear

Injuries by categories shows that lack of medical access totals 300,761 of the recorded injured case while direct conflicts records 2418.

Recommendations

1. Increased Medical Support in Gaza City: Due to the high number of injuries, more medical personnel and supplies should be deployed to Gaza City to manage patient overflow effectively.

2. Adequate Medical Staffing: Additional paramedics and medical professionals should be deployed to balance the patient-to-doctor ratio and prevent burnout among healthcare workers.

3. Enhancing Emergency Response: More emergency response teams should be stationed in key locations to provide immediate first aid and transport critically injured individuals to medical centers.

4. Training for Local Medical Personnel: Doctors and nurses should receive updated training on trauma management, focusing on the most prevalent injuries, including asphyxiation, hemorrhagic shock, and crush injuries.

5. Reinforced Infrastructure: Strengthening hospital infrastructure and emergency medical centers can ensure the continuous operation of healthcare services in high-impact regions.

Lack of medical access is also present here and if the injuries are left unattended to, it could worsen and then become fatality case.

Increased Medical Support and training specific to cause of death in Gaza City, North Gaza, Haiti, Dier-al-balah as they are the cities with the most counts of fatalities and injuries

By implementing these recommendations, the humanitarian response can be significantly improved, reducing fatalities and mitigating injuries more effectively.