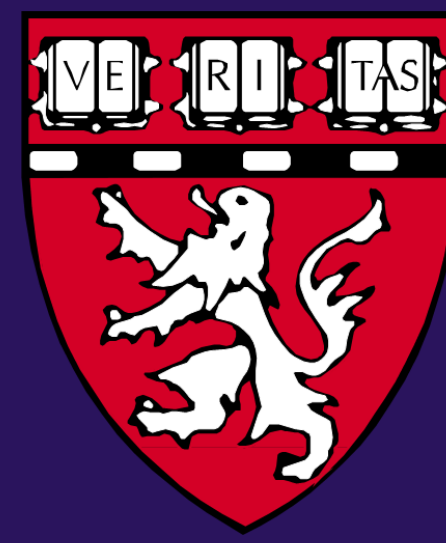


# Differences in initial healthcare responses between Turkey and the Conflict-Ridden area in Syria following February 2023 Earthquakes



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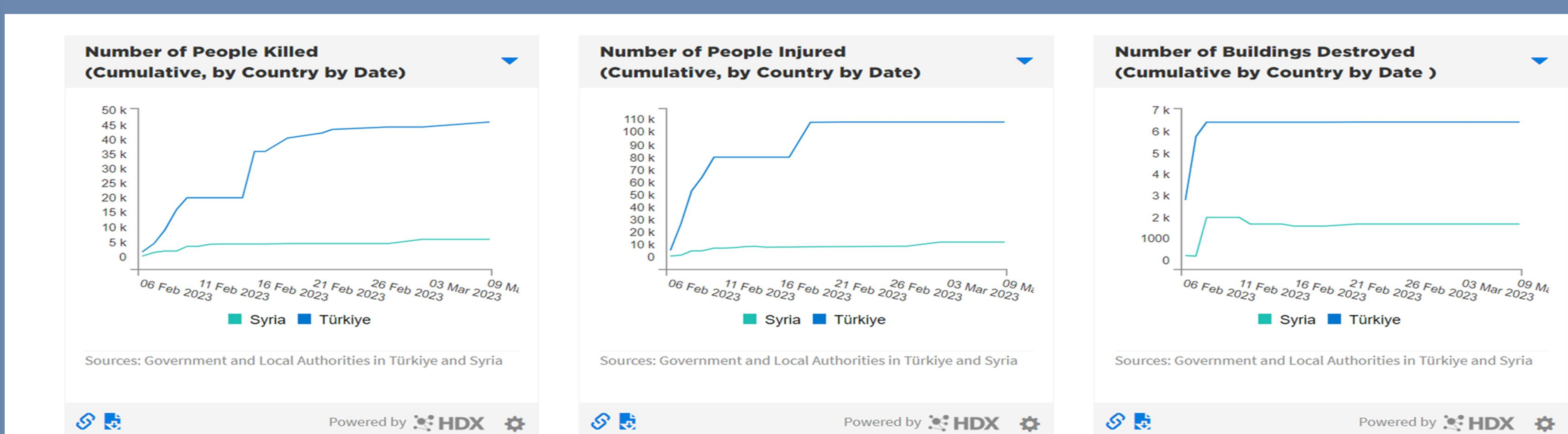
## BACKGROUND

- The 2023 Turkish-Syrian earthquakes, the most devastating since 1939 [1], compounded challenges in Syrian healthcare sector amid ongoing conflict [2,3,4] and disrupted Gaziantep's humanitarian aid supply [5].
- This study seeks to analyze disparities in initial healthcare responses in Turkey and Syria following earthquakes.

**Table 1. CMR and injury rate per population in Syria and Turkey following 2023 earthquakes.**

Country	Population affected (TOT)	High intensity areas population (HI)	CMR/TOT	CMR/HI	Injury rate/TOT	Injury rate/HI	Humanitarian Aid personnel (USAR)
Syria	12,068,376	631,552	5.0 per 10,000	9.2 per 1,000	9.9 per 10,000	2.6 per 1,000	2.5 per 100,000
Turkey	43,982,720	4,135,360	10.5 per 10,000	7.7 per 1,000	24.6 per 10,000	7.3 per 1,000	23.7 per 100,000

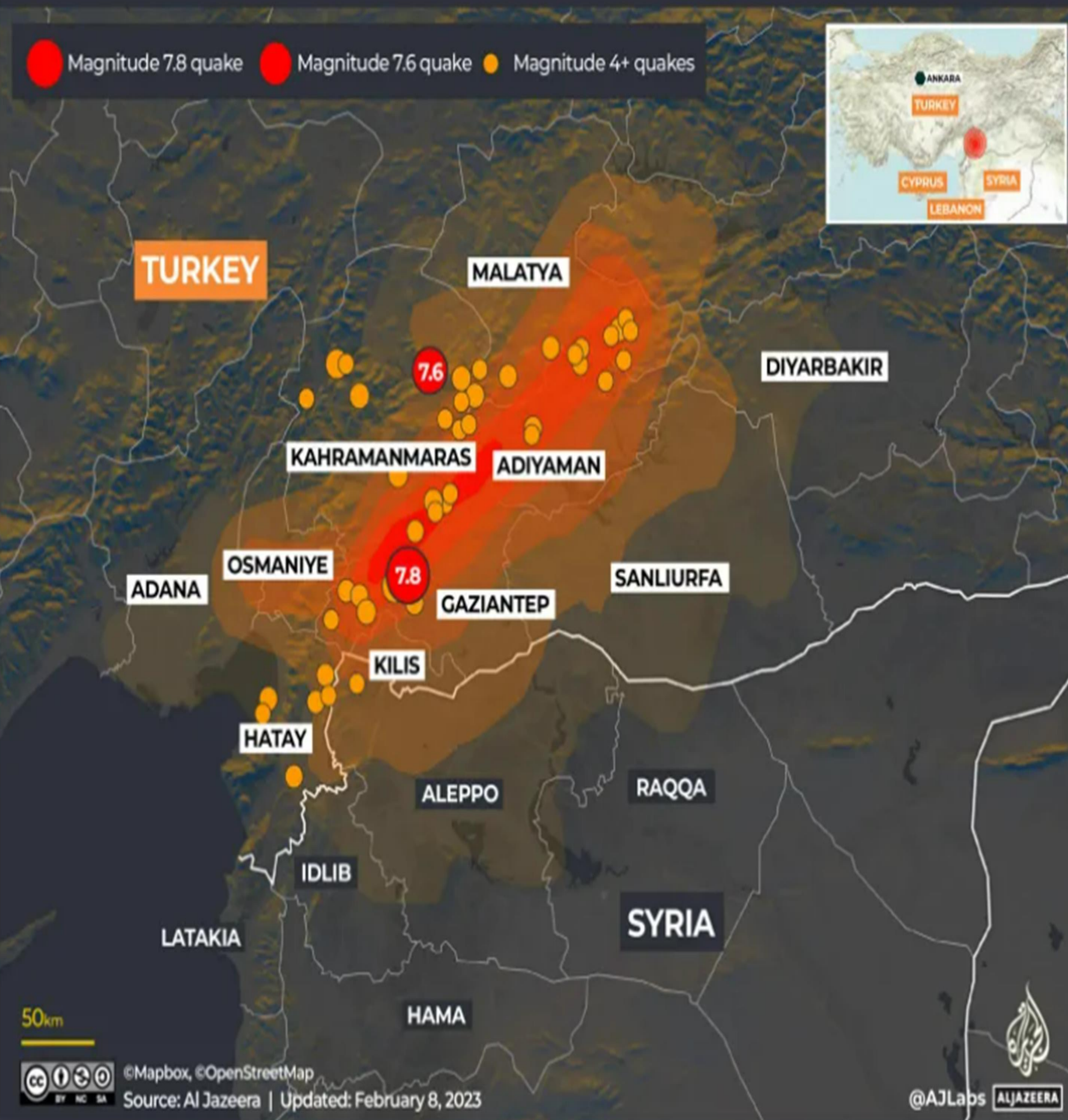
**Figure 1. Temporal trends of the death tolls and injuries in the first month post the earthquake.**



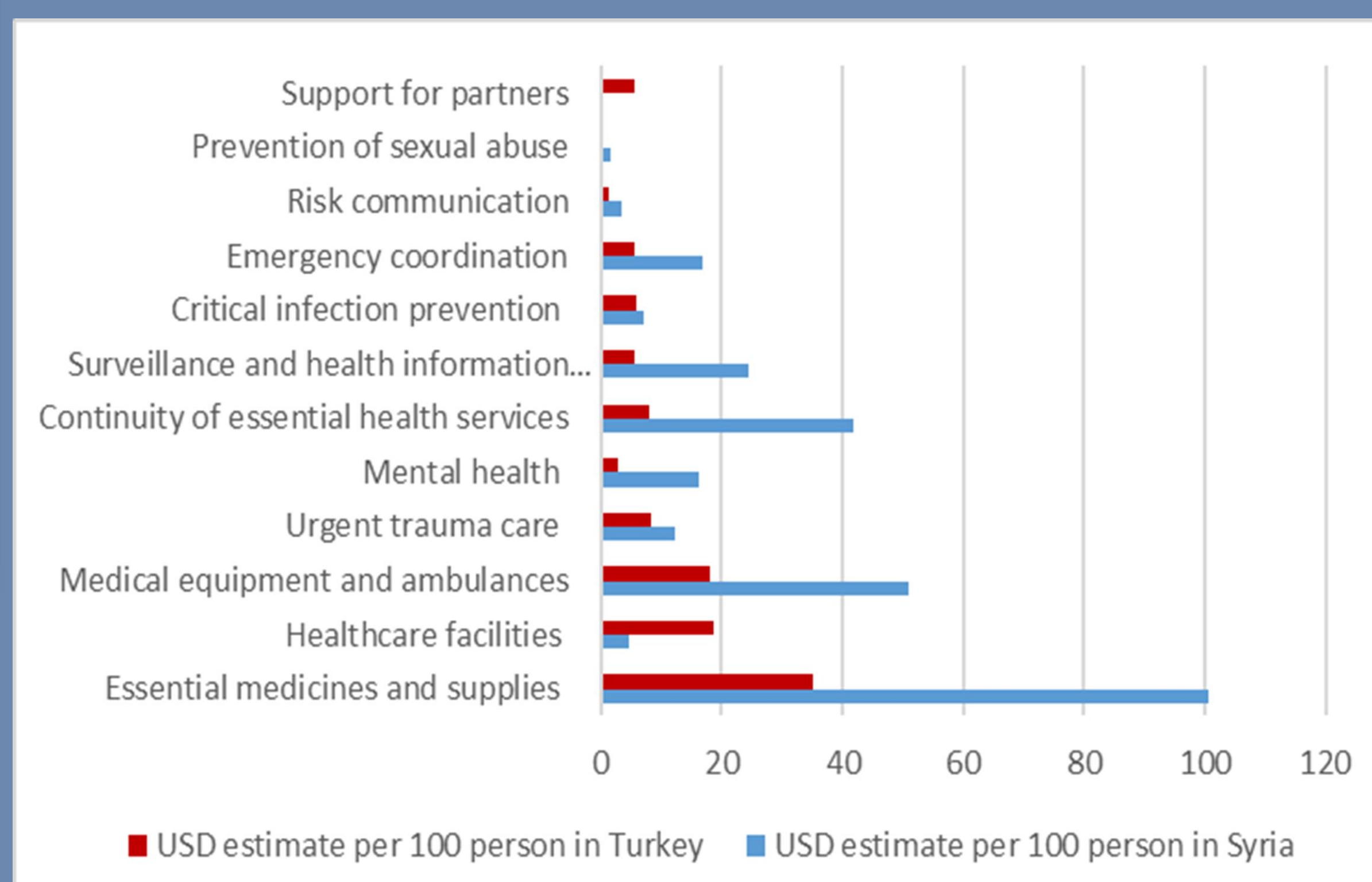
## TURKEY-SYRIA EARTHQUAKE

### Turkey declares state of emergency

Turkish President Recep Tayyip Erdogan has declared a three-month state of emergency in the 10 quake-hit provinces in southeastern Turkey.



**Figure 2. WHO estimates of the initial funding requirements.**



## DISCUSSION

- Syria's earthquake response was hindered by equipment shortages, infrastructure gaps, conflict obstacles, and funding delays, leading to significant setbacks in addressing urgent health care needs [6].
- Turkey faced higher earthquake damage, especially in impoverished and refugee-heavy regions [7].
- Severe winter conditions post-earthquake complicated rescue efforts, hindered aid access, and added challenges for survivors in rubble [8].

## METHODS

- Study Design: Narrative review.
- Study population: Populations exposed to the earthquakes in both Syria and Turkey between the 6<sup>th</sup> and 13<sup>th</sup> of February, 2023.
- Databases: Humanitarian Data Exchange, WHO flash appeal as of February 13, 2023, ReliefWeb and MAPACTION.
- Statistical Analysis: Descriptive analyses including: Crude Mortality Rates (CMR), injury rates, temporal trends of death tolls and injuries in the first month post-catastrophe, WHO estimated funding requirements per population, and ratios of humanitarian aid personnel in Urban Search and Rescue (USAR) teams per population in both countries.

## RESULTS

- Turkey had higher CMR in affected areas (10.5 vs 5.0/10,000), while Syria had higher CMR in intensely seismic regions (9.2 vs 7.7/1,000).
- Turkey had higher injury rates (24.6 vs 9.9/10,000).
- Death and injury rates plateaued in Syria after three days, but steadily rose in Turkey.
- Syria allocated more funding for all priorities per population except healthcare facilities' rehabilitation.
- Turkey had 219 USAR teams compared to Syria's six, with significantly more humanitarian aid personnel (23.7 vs 2.5/100,000).

## CONCLUSION

- Significant disparities in initial healthcare response were observed between Turkey and Syria, highlighting need for policymakers to enhance responses in conflict-affected events to reduce impact on affected populations.

### References:

- [1] Prehosp Disaster Med. 2023 Aug;38(4):537-538. [2] Int J Infect Dis. 2021 Jul;108:202-208.. [3] New Microbes New Infect. 2023 Mar 29;52:101127. [4] Lancet. 2017 Dec 2;390(10111):2516-2526. [5] BMJ. 2023 Mar 8;380:559. [6] <https://www.thenewhumanitarian.org/analysis/2023/08/14/what-lessons-can-be-drawn-international-earthquake-response-syria> (accessed 8.29.23). [7] <https://www.worldbank.org/en/news/press-release/2023/02/27>. [8] Nat Rev Earth Environ. 2023;4(5):287-289.