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outdoor activities and gatherings in a post-COVID-19 world will further expose large numbers of people to the potential vulnerabilities of vehicle-based terrorism. The scale of the casualties from a vehicle-based terror attack can overwhelm traditional resources and strain the abilities of the healthcare sector. Counterterrorism and disaster medicine specialists are crucial players in educating first responders and emergency medicine providers, allowing them to adequately prepare for an evolving threat in a world devastated by COVID-19.

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## Terrorism-Related Attacks in Sub-Saharan Africa from 1970-2020: Analysis and Impact from a Counter-Terrorism Medicine Perspective

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Introduction: Sub-Saharan Africa (SSA) has become a hotspot for global terrorism, with nearly 50% of global terror-related deaths occurring in SSA in 2021. To address growing terrorism-related health implications the field of counter-terrorism medicine (CTM) seeks to study the impacts of terrorism and implement healthcare initiatives. This study is a semi-quantitative analysis of terrorist-related activity in SSA from 1970-2020.

Method: A retrospective analysis of the Global Terrorism Database (GTD) was performed for the region of SSA between 1970-2020. The number of attacks, deaths, and injuries, as well as primary weapons types, country where attacks occurred, and primary target types, were collated into a Microsoft Excel™ spreadsheet (Microsoft, Redmond Washington, USA) and analyzed.

Results: A total of 19,320 attacks were recorded, resulting in 77,565 deaths and 52,986 injuries. Nigeria had the greatest number of attacks. Firearms were the most frequent weapons used, followed by explosives, unknown, and incendiary, with all others making up the remainder. Private citizens and property were the most frequently targeted entities, followed by general government facilities, police, business, military, diplomatic government facilities, and religious figures/institutions, with all other targets making up the remainder.

Conclusion: The majority of deaths from terrorism in SSA are the result of firearm attacks. Nigeria had the largest number of attacks and the highest number of killed and wounded. Private citizens and property are the most frequently targeted. Terrorism poses unique challenges to governments, populations, healthcare systems, and aid organizations. By understanding the impact and scope of terrorist activity in SSA, Counter-Terrorism Medicine (CTM) initiatives can be employed to improve healthcare outcomes.

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## Terrorist Attacks on Refugees, Internally Displaced Peoples, and Asylum Seekers

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Introduction: The United Nations High Commissioner of Refugees (UNHCR) estimates that there were over 100 million displaced people as of May, 2022, which has left many people without adequate healthcare and strained local healthcare systems. While there is concern about violence that may be brought as a result of these large influxes of people, few are focused on attacks that are perpetrated on these displaced peoples. This study is a semi-quantitative analysis of terrorist attacks on refugees, refugee camps, internally-displaced peoples, and asylum seekers.

Method: A retrospective search of the Global Terrorism Database (GTD) was performed for all terrorist-related events from 1970 to 2020 that targeted refugees, refugee camps, internally displaced peoples (IDPs), and asylum seekers. The number of attacks, country of attacks, weapon types, numbers wounded, and numbers killed were collated into a Microsoft Excel<sup>TM</sup> spreadsheet (Microsoft, Redmond Washington, USA) and analyzed.

Results: There were a total of 683 attacks which resulted in a total of 3148 deaths and 4374 injuries from 1970-2020. These occurred in 56 countries, with Sudan having the largest number of attacks at 113, followed by Germany (71), Iraq (61), Nigeria (51), and Sweden (43). The most frequent weapons used were explosives (213), followed by firearms (210), incendiary (140), unknown (74), melee (45), and chemical (1).

Conclusion: Terrorist attacks against refugees/IDPs/asylum seekers resulted in 3148 deaths and 4374 injuries in 683 attacks. Sudan had the highest number of terrorist attacks, and the most frequent weapon used was explosives. Attacks against refugees pose unique challenges to government, NGO's, and other stakeholders due to the lack of healthcare access and transient nature of this population. By understanding the scope and impact of terrorist-related attacks against this vulnerable population counter-terrorism medicine initiatives can be employed to improve healthcare access and outcomes.

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## Prehospital Whole Blood Transfusion Training in Ukraine: A Case Study Highlighting the Efficacy of Collaboration and Advocacy

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