Four SCAs among 18,144 half-marathoners and the EMS were enrolled.

A medical command center was set up 100 meters from the finish line. Ten medical tents, one first-aid station, and nine event ambulances were distributed along the course, and one medical tent was placed near the baggage storage area. Each medical tent comprised: 1 doctor, 1–3 nurses, and 1–3 paramedics. The in-event EMS also comprised a mobile first-aid team. Thirty paramedics rode motorcycles and carried automated external defibrillators and emergency medical kits throughout the racecourse.

Results: Among the 7,811 full- and 18,144 half-marathoners, the total number of SCAs was four male half-marathoners. Three runners (75%) stated that they decreased their weekly running volume during the pandemic restrictions' period. Two runners (50%) experienced cardiac arrest in the final quarter of the race. The median interval of time between SCA occurrence and EMS arrival was 2.5 minutes (interquartile range, 0.5–4 minutes). Electric shocks were delivered to all the four runners (100%) experiencing ventricular fibrillation, and all of them were successfully resuscitated in the field. The median interval of cardiopulmonary resuscitation duration before return of spontaneous circulation was 8.5 minutes (interquartile range, 6–9.5 minutes).

Conclusion: 4/18144 is a significantly high number of SCA compared to data from the annual Taipei Half-Marathon between 2016 and 2020 and past half-marathons worldwide. The high prevalence rate of SCA (22 per 100,000) may be due to inadequate acclimation and training volumes.

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Factors Associated with International Humanitarian Aid Appeal: Analysis of Disasters from 1995 to 2015

Lenard Cheng MBBS[1,2], Attila Hertelendy PhD[3], Alexander Hart MD[4], Lawrence Law MD[2], Ryan Hata MD[1], Georgina Nouaime MD, MBA[1], Fadi Issa MD[1], Lina Echeverri MD[5], Amalia Voskanyan RN[1], Gregory Ciottone MD[1]

1. Beth Israel Deaconess Medical Center, Boston, USA
2. National University Hospital, Singapore, Singapore
3. Florida International University, Miami, USA
4. Hartford Hospital, Hartford, USA
5. Universitá del Piemonte Orientale, Novara, Italy

Introduction: International humanitarian aid is crucial in disasters but must be needs-driven and coordinated with requests from local authorities. We identify disaster and population factors associated with international aid appeal during disasters and hence guide preparation by international humanitarian aid providers.

Method: In this retrospective database analysis, we searched the Emergency Events Database for all disasters from 1995 to 2015. Disasters with and without international aid appeals were compared by location, duration, type of disaster, deaths, number of people affected, and total estimated damage. Logistic regression was used to examine the association of each factor with international aid appeal.

Results: Of 13,961 disasters recorded from 1995 to 2015, 168 (1.2%) involved international aid appeals. Aid appeals were more likely to be triggered by disasters which killed more people (OR 1.29 [95% confidence interval (CI) 1.02-1.64] $\log_{10}$ persons), affected more people (OR 1.85 [95%CI 1.57-2.18] / $\log_{10}$ persons), and occurred in Africa (OR 1.67 [95%CI 1.06-2.62). Earthquakes (OR 4.07 [95%CI 2.16-7.67]), volcanic activity (OR 6.23 [95%CI 2.50-15.53]), and insect infestations (OR 12.14 [95%CI 3.05-48.35]) were more likely to trigger international aid appeals. International aid appeals were less likely to be triggered by disasters which occurred in Asia (OR 0.46 [95%CI 0.29-0.73]) and which were transport accidents (OR 0.12 [95%CI 0.02-0.89]).

Conclusion: International aid appeal during disasters was associated with greater magnitude of damage, disasters in Africa, and specific types of disasters such as earthquakes, volcanic activity, and insect infestations. Humanitarian aid providers can focus preparation on these identified factors.

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The Hard-to-Reach Data (HaRD) Framework: a Case Study in Humanitarian Mine Action

Stacey Pizzino[1], Michael Waller[1], Vivienne Tippett[2], Jo Durham[1]

1. University of Queensland, Brisbane, Australia
2. Queensland University of Technology, Brisbane, Australia

Introduction: Following humanitarian crises (e.g. armed conflict), reliable population health metrics are vital to establish health needs and priorities. However, the challenges associated with accurate health information and research in conflict zones are well documented. Often working within conflict settings are authorities and non-government organizations (NGOs) who frequently collect data under the context of operations. This operational data is a potentially untapped source of hard-to-reach data that could be utilized to provide a better insight into conflict affected populations. The Hard to Reach Data (HaRD) framework highlights the process of identifying and engaging with these stakeholders collaboratively to develop research capacity.

Method: The HaRD framework was developed from literature searches of health and social sciences databases. The framework which provides a structure to gain access to data in hard-to-reach settings was applied to humanitarian mine action to identify and collect existing but underutilized data.

Results: Guided by the HaRD framework we compiled the world's first global casualty dataset for casualties of landmines and explosive remnants of war. The framework provided a structured approach to identify and engage with key stakeholders. An adaptive approach was needed for stakeholder engagement with trust building and transparency important factors in developing a collaborative partnership. Appropriate communication of research findings is important to ensure reciprocity.

Conclusion: The HaRD framework can identify potential data sources and guide access in hard-to-reach data settings. Operational data is often available but hidden; a systematic approach to identifying and engaging with stakeholders can