IFMSA Policy Document
Disaster and Emergency Management

Proposed by Team of Officials
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Policy Statement

Introduction:

Disaster and emergency management is an ever-evolving field that aims to effectively address disasters and emergencies for the sake of a better future. It emphasizes the critical importance of prevention, preparedness, response and recovery, to mitigate the consequences, save lives and protect health. This policy urges members to work together and assist the appropriate response in order to reduce the negative social, economic and health impact locally, nationally and globally.

IFMSA position:

The International Federation of Medical Students Associations (IFMSA) recognizes the global burden of disasters and emergencies and calls for the implementation of effective strategies to promote risk reduction and management. IFMSA firmly believes that along with future healthcare professionals, global action is needed. Furthermore, IFMSA recognizes the importance of disaster and emergency management and demands close cooperation and coordination between the stakeholders to improve disaster resilience.

Call to Action:

Therefore, IFMSA calls on:

Governments to:
- Implement the Sendai Framework Convention for Disaster Risk Reduction (SFDRR).
- Create national coordination clusters and policies with collaboration across all sectors for people centered disaster & emergency management.
- Adopt inclusive and sustainable disaster management plans, including capacity-building programs, in collaboration with other stakeholders.
- Invest in research and development of technologies and strategies to mitigate the consequences of disasters and emergencies.
- Promote development of policies, legal frameworks and strategies at all levels, relevant to disaster and emergency management.

International organisations and non-governmental organisations (NGOs) to:
- Collaborate with national governments and local communities to spread awareness about disaster and emergency management, integrate Disaster Risk Reduction (DRR) Plans and advocate for their implementation.
- Use coordinated and centralized systems for coordinating disaster relief efforts and distribution of resources, making sure the methods of these systems are based upon evidence based assessments, coordinated by the WHO's health cluster leadership.
- Ensure that Foreign Medical Teams deployed meet the international minimum standards set by the WHO.
- Supervise the enforcement and full respect of the International Humanitarian Law and the Right to Health and report eventual human rights violations to relevant organisations and authorities.
- Invest in research on the impact of disasters on public health systems focusing on vulnerable populations.

The health sector and medical schools to:
- Continue to educate and train medical students and health professionals based on the most recent developments in Disaster Risk Reduction.

- Develop emergency/disaster preparedness plans at every level of the health system including, but not limited to, community health workers, primary health centers, district hospitals, and tertiary hospitals.
- Promote systematic integration of health into national and sub-national disaster risk reduction policies and plans and the inclusion of emergency and disaster risk management programmes in national and sub-national health strategies.
- To adopt community-based health approaches in disaster preparedness and health emergency management in collaboration with medical schools.
- Incorporate disaster medicine and health emergency management into the medical curricula, and encourage research in this field.
- Prepare and implement adaptive plans to continue the delivery of medical education during potential emergencies/disasters.
- Develop an action plan for final year students for effective deployment if needed, to avoid compromising their medical education.

IFMSA National Member Organisations (NMOs) and medical students to:
- Raise awareness of the importance of disaster/emergency preparedness and response, invest time and resources into projects, research and activities on this topic and enroll activities under the IFMSA Emergencies Disaster Risk and Humanitarian Actions program.
- Share best practices and projects with NMOs and reach out to other NMOs to develop advocacy and project collaborations in order to align with target E of the SFDRR (disaster risk reduction strategies).
- Join international campaigns and advocacy initiatives organised by IFMSA or external partners of IFMSA and advocate for inclusion of disaster medicine into medical schools' curricula.
- Provide avenues for medical students to engage in volunteer work, advocacy and research into disaster medicine and health emergency management.
- Advocate to policy makers, medical schools, and other stakeholders to adopt DRR strategies with the promotion of meaningful youth inclusion from decision making to relief actions.

Position paper

Background information:
The UNDRR states that a disaster is "a serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources [5]." This means that in disasters the responders can't surpass the consequences with their own resources but require external assistance; whereas, emergencies are events that are managed with local resources [6] [7]. During disasters, three conditions are combined: being exposed to a hazard, the vulnerabilities' conditions and not enough capacity to reduce or cope with the negative impacts of the disasters [5]. These impacts might include, but not limited to, death, negative consequences on the physical and mental well-being, destruction of the properties and assets, and environmental degradation [5]. Hazards can be natural or technological or human-made. According to the World Health Organization, 90,000 people are killed and 160 millions are affected worldwide each year from natural disasters [8]. During 1998 to 2017, 1.3 million people were killed and 4.4 billion were injured, homeless, displaced or needed urgent help due to natural disasters. Floods, storms, droughts, heatwaves and other extreme weather events were the cause of 91% of the disasters. In this duration, the direct economic losses from disasters were US\$ 2,908 billion [9]. This highlights the detrimental effects of the disasters and emergencies on healthcare systems, environment, economy, and mental as well as physical health.

In the 1970s, the United Nations Office for Disaster Risk Reduction (UNDRR) was established to advocate, support, and coordinate the mission of disaster risk management [2]. The UNDRR brings governments, partners and communities together to reduce disaster risk and losses to ensure a safer and sustainable future [3]. Over the past decades, disaster risk reduction has moved from a narrowly perceived technical concept to a broad-based global movement focusing on sustainable development. A ten-year plan for action on disaster risk reduction: the 'Hyogo Framework for Action' was set up in 2005 [1] [2]. Afterwards, another framework drew inspiration which is "The Sendai Framework for Disaster Risk Reduction 2015-2030 [4]." Since then, the UNDRR has been tasked with supporting the implementation, follow-up and review of the Sendai Framework and has played a crucial role in disaster risk management including prevention, mitigation, preparedness, response and recovery mainly through their efforts in helping countries to apply the Sendai Framework.

As for any citizen living in this era, knowledge and understanding of disaster and emergency management allow us to collaborate to make a difference worldwide when collective action is needed the most.

It is important to define some terminologies that are central to the contemporary understanding of disaster and emergency management and that will be used throughout this policy:

Capacity
"The combination of all the strengths, attributes and resources available within a community, society or organization that can be used to achieve agreed goals [5]."

Risk management
"The systematic approach and practice of managing uncertainty to minimize potential harm and loss [5]."

Disaster risk management
"The systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster [5]."

Emergency management
"The organization and management of resources and responsibilities for addressing all aspects of emergencies, in particular preparedness, response and initial recovery steps [5]."

Mitigation
"The lessening or limitation of the adverse impacts of hazards and related disasters [5]."

Preparedness
"The knowledge and capacities developed by governments, professional response and recovery organizations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions [5]."

Resilience
"The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions [5]."

Vulnerability
"The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard [5]."

Discussion:

Epidemiology of Disasters
Emphasis laid on economic losses caused by disasters is not a holistic approach to the full dimension of what occurs during a disaster. When disaster losses are expressed using human life, their potential scale comes into clearer focus. In 2019, there were 11,000 deaths reported caused by natural disaster events worldwide [10]. Over the past decade worldwide, natural disasters accounted for 0.01% to 0.4% of total deaths [11]. In low and middle-income countries, the losses are generally higher than in highincome countries. This is due to various factors including the lack of infrastructure to protect and respond to disasters in low income countries [10]. Furthermore, disasters not only cause mortality, but they affect the morbidity of the population affected. Injury, displacement and homelessness are common occurrences after a disaster. 24.3 million people were internally displaced in 2016 due to disasters [12]. In the UNISDR Global Assessment report on Disaster Risk Reduction, Targets A and B included in the Sendai Framework aim to reduce this burden. They intend to lower the average age per 100,000 global disaster mortality rate and the global figure of affected population per 100,000 in the decade 2020-2030 compared to the period 2005-2015 [13].

Disaster Risk Reduction Frameworks
Different frameworks of disaster risk reduction and emergency management fostered by the UNDRR office and other relevant organizations and entities push states to strengthen their commitment to address disaster risk reduction and the building of resilience to disasters with a renewed sense of urgency within the context of sustainable development and to integrate, as appropriate, both disaster risk reduction and the building of resilience into policies, plans, programmes and budgets at all levels and across all sectors.

The Hyogo Framework for Action (HFA), endorsed by the UN General Assembly in 2005, is the first detailed documentation of the work required to reduce disaster-related losses. This was the first global important instrument for raising public and institutional awareness, generating political commitment, and focusing and catalyzing actions by a wide range of stakeholders at all levels [14]. The Hyogo Framework for Action: lessons learned, gaps identified and future challenges addressed led to the creation of Sendai Framework for Disaster Risk Reduction 2015–2030 that was adopted at the Third United Nations World Conference on Disaster Risk Reduction.

The Sendai Framework is a 15-year, voluntary, non-binding agreement that recognizes that nation states have the primary role to reduce disaster risk but that responsibility should be shared with other stakeholders including local government and the private sector. It is the most widely accepted framework in the field of disaster risk reduction as it has a call for action specified for all levels and addressing different stakeholders It aims for the following outcome: "The substantial reduction of disaster risk and losses in lives, livelihoods, and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities, and countries."

This framework sets four priorities for action:

1. Understanding disaster risk;
2. Strengthening disaster risk governance to manage disaster risk;

3. Investing in disaster risk reduction for resilience;
4. Enhancing disaster preparedness for effective response, and to "Build Back Better" in recovery, rehabilitation, and reconstruction [15].

To support the assessment of progress towards these priorities, seven "targets" have been proposed as measurable indicators: mortality (target A), number of people affected (target B), economic loss (target C), critical infrastructure and services (target D), disaster risk reduction strategies (target E), international cooperation (target F) and early warning and risk information (target G).

Finally, the International Conference on the Implementation of the Health Aspects of the Sendai Framework for Disaster Risk Reduction 2015-2030 through the Bangkok Principles recommended the measures to prevent and/or reduce the risk of health emergencies such as pandemics that have the potential for huge social and economic impact.The so-called 'Bangkok Principles' place strengthened coordination at the heart of efforts to reduce risk from biological hazards. They call for an inter-operable, multi-sectoral approach to promote systematic cooperation, integration and, ultimately, coherence between disaster and health risk management [16].

Health Systems and Health Resilience
Disasters may have direct and indirect impacts on the health care systems. Direct consequences are deaths, injuries, psychological effects and various diseases. The indirect consequences of disasters include deteriorated living conditions and damages to health care infrastructure such as the provision of water and/or electricity. [17] The six principles of health systems are health service delivery, health workforce, health information systems, access to essential medicines, health system financing and leadership and governance. All of these are vital in an emergency, especially health system delivery, which includes emergency preparedness. [18] As seen in the 2004 Tsunami in Singapore, healthcare workers are at risk of acute stress leading to post-traumatic stress disorder, which also further impacts the Health Workforce. [19]

There is a lack of research on the impact of disasters on the overall public health systems in populations with health disparities. [20] The consequences of natural disasters in relation to public health can be very complicated. Disasters have a direct impact on the health of the population which can result in physical trauma, acute disease, and emotional trauma. Furthermore, disasters can increase the morbidity and mortality rates caused by chronic and infectious diseases indirectly, by impacting healthcare systems. [21] Disasters often have a negative effect on the continuity of care, due to fragmenting the health infrastructure. This is especially the case for places in medically underserved areas who are already dealing with health disparities. Disasters can make new or worsen existing health disparities, which only further impacts the already affected population negatively. [22] Additionally, often, health practitioners are not trained and prepared to act in a disaster situation, compromising not only the delivery of the best practices for the situation but also the individual mechanisms from the health practitioners to cope with the event. This matter aims to be addressed by accomplishing the Target D of the SFDRR, following the Foreign Medical Teams (FMT) minimum standards and including the Bangkok Principles in the implementation of the SFDRR [23].

Physical Health
The health consequences of a disaster or an emergency vary greatly depending on the nature of the event in question. During natural disasters and man-made conflicts, physical trauma needing surgical or critical care may be one of the major health consequences. Ensuring safe and timely access to surgical and critical care is therefore a key step in reducing morbidity and mortality during disasters [24]. Independent of the type of conditions that present, whether they are surgical or infectious, a strong health system and disaster preparedness, including strategic plans, must be in place. Building resilience at an institutional and national level may also be an opportunity to strengthen the health system, creating positive spillover effects on the capacity to handle everyday illness [25].

Mental Health
Natural and human-made disasters leave a detrimental effect on mental health. Exposure to human-made disasters inflates the likelihood of being diagnosed with mental health conditions, such as Major Depressive Disorder, Posttraumatic Stress Disorder (PTSD) and substance use disorders [2]. Studies have demonstrated that the most affected are children [27] as well as women, elderly people, and people with pre-existing mental disorders [28].

Natural disasters are correlated with the prevalence of PTSD among young people [29] PTSD has been associated with young people being less able to concentrate in school and getting lower grades [30]. Similar trends concerning PTSD were reported in the context of human-made disasters, such as mass shootings [31] and terrorist attacks [32]. Experiencing a terrorist attack has also been correlated with substance abuse, depression and suicidality in children and adolescents [33]. Additionally, exposure to trauma seems to be a predisposing factor for smoking and alcohol consumption [34].

Social inequalities seem to be an important factor in assessing the effect of disasters on mental health. Some studies have found women and immigrants to be at higher risk of developing mental disorders following trauma [35]. Studies also reported that ethnic minorities, as well as people with low socioeconomic status, might experience more difficulty in coping with the stress that follows a disaster [39].

Vulnerable Populations
Disasters exacerbate existing disparities and affect already vulnerable populations the most. Poor people, women, children and youth, persons with disabilities, indigenous peoples, migrants, volunteers and older persons are disproportionately affected by disasters. According to the World Bank and the Global Facility for Disaster Reduction and Recovery (GFDRR), disasters caused 26 million people to fall into poverty [36]. The Sendai Framework recognized the accentuated impact of disasters on vulnerable individuals and stated that disasters impair efforts to eradicate poverty, worsen climate change, and hinder sustainable development. The framework also focuses on the particular needs of vulnerable populations that need to be addressed. For example, patients suffering from chronic illness and life-threatening conditions need access to special services before, during, and after a disaster.

Vulnerable populations are less prepared for disaster risks and are more impacted by the immediate as well as long-term effects of disasters. People with low socioeconomic status (SES) are less likely to afford the means of mitigating the impacts of natural and human-made disasters and are more likely to live in areas more threatened by disaster impact, mostly because these areas tend to be less costly [37]. Additionally, people with low SES are more likely to live in homes that are less prepared for facing disasters, such as older, lower-quality homes or mobile homes [38]. The vulnerability is further exacerbated by the high costs of insurances, which in many countries is often considered too high [38].

Studies have shown that upon receiving warnings before expected storms, vulnerable people are less likely to evacuate since they lack the resources to do so [39]. People with low SES, as well as ethnic minorities, lacked the financial means to afford transportation and to secure a place to go [39].

Vulnerable populations are also disproportionately affected by the long-term consequences that result from natural and human-made disasters. The World Bank reported that poor populations are more heavily affected by economic losses after disasters, with many having their savings concentrated in their homes and livestock, both of which can be devastated during disasters. Consequently, the World Bank estimated that 26 million people are driven into poverty every year because of disasters [40, 41].

Effects on mental health also seem to be more pronounced in vulnerable populations with an increased likelihood of depression, and Posttraumatic Stress Disorder (PTSD) in the aftermath of a disaster [38].

Economic Repercussions
During the period of a disaster, the ripples created by economic instability can have far more reaching effects than physical health inflictions. There is a loss in investment flow, risk assets collapse, market volatility spikes with a marked deterioration in market liquidity, businesses shut down and resultantly companies are forced to lay off workers. This causes a rise in recession as well as inflation. This trend on a global scale was seen in the global financial crisis 2007-8, and after that in the Great Lockdown due to Covid-19 pandemic with the global economy showing a sharp decreasing trend by 3% in 2020 [40].

Crisis, be it manmade or natural, knows no boundaries. It affects all, some more than others. The developing countries find it more toll taking due to the already weak economy and staggering health care facilities. As for instance, due to the recent Covid-19 Pandemic, Middle East and Central Asia states, already stricken by war, and super added by plummeting oil prices, have borne a cost of US$116 billion, further slowing down an already slow economy [41]. On the other hand, developed countries like the USA, UK, Japan, China, also have economies on the verge of collapse, with the US Stock

Market experiencing a drop by 30%. With the UK experiencing GDP of -1.6 and European Union of -2.7 [43], the economic fallout has been worsened by the already weakened global growth (by 2.6) in 2019, as a result of weaker exports and investment [44].The impact can vary in this case due to the decreased ability of inhabitants of developing countries to cope with or adapt to such events.

For disasters at a more local level such as Hurricane Katrina, the economic crisis does not register as much on a national level in developed countries than it would in low-income and low- and middle-income countries. In any crisis, the most vulnerable people are those with small businesses, belonging to tourism or transport-related industry, financial markets, and those earning daily wages. As the underprivileged people are more prone to be living in hazard-prone areas, utilize risk-reducing measures very rarely and have very limited if any access to basic health care, political voice communications, and infrastructure, hence the socio-economic inequality is precedented to increase in times of disaster. This leads to the shifting of disaster risks from those who benefit from it to those who bear the price, corruption, and ineffective accountability being the major reasons behind it [45].

In order to decrease the impact on livelihood of these individuals in particular, countries need to build stronger and faster backup networks, and in doing so can reduce the impact by 31% [40]. The governments need appropriate risk management strategies for future disasters covering a time period of at least 8-10 years. According to the Bank's Lifeline report, investment in more resilient infrastructure can provide a net benefit of $4.2 Trillion with $4 profit for an investment of $1 [46]. This clearly depicts how the economic impact of disasters can be mitigated by taking appropriate steps at the right time.

Ethics and human rights in disaster responses
During disasters and emergencies, it is important to ensure that we do no harm and that quality of care and ethical considerations are of high priority. This should also include a respect for local populations and authorities. The WHO has set an international minimum standard for foreign medical teams to ensure adequate quality. Emergencies and disasters can be extreme situations, where already vulnerable populations are put in even more vulnerable situations. This cannot be an excuse for breaching human rights.

Cluster Approach and Health Coordination Cluster
Coordination is essential during disasters and emergencies, with the Haiti earthquake in 2010 being a clear example of a humanitarian response hampered by the lack of adequate coordination [42]. Clusters are groups of humanitarian organizations, both UN and non-UN, in each of the main sectors of humanitarian action, e.g. water, health, and logistics. They are designated by the Inter-Agency Standing Committee (IASC) and have clear responsibilities for coordination. The Cluster Approach was applied for the first time following the 2005 earthquake in Pakistan. Nine clusters were established within 24 hours of the earthquake [47]. Good coordination strives for a needs-based, rather than capacity-driven, response. It aims to ensure a coherent and complementary approach and identifying ways to work together for better collective results which all are needed when we work with limited resources during a disaster. The Cluster Approach aims to add value to humanitarian coordination through: increased transparency and accountability, enhanced predictability, engagement with national and local authorities, inclusion of affected communities, more effective advocacy and joint strategic and operational planning [48].

Currently 23 countries have an active health cluster. There are 49 Health Cluster partners at the global level and more than 700 in-country partners. WHO is the Cluster Lead Agency and it provides secretariat support through the Global Health Cluster Team in the WHO Emergency Operations Department [49].

References:

1. Global Network of Civil Society Organisations for Disaster Reduction, "Our history," [Online]. Available: https://www.gndr.org/about/history.html.
2. United Nations Office for Disaster Risk Reduction, "UNDRR Yearly Archives," [Online]. Available: https://www.undrr.org/about-undrr/history#isdr.
3. United Nations Office for Disaster Risk Reduction, [Online]. Available: https://www.undrr.org.
4. United Nations Office for Disaster Risk Reduction, "What is the Sendai Framework for Disaster Risk Reduction?" [Online]. Available: https://www.undrr.org/implementing-sendai-framework/what-sf.
5. United Nations International Strategy for Disaster Reduction, "2009 UNISDR Terminology on Disaster Risk Reduction". 2009.
6. United Nations Office for Outer Space Affairs, "Risks and Disasters," [Online]. Available: http://www.un-spider.org/risks-and-disasters.
7. World Health Organization, "Definitions: emergencies," [Online]. Available: https://www.who.int/hac/about/definitions/en/.
8. World Health Organization. "Natural events," [Online]. Available: https://www.who.int/environmental_health_emergencies/natural_events/en/.
9. United Nations Office for Disaster Risk Reduction, "Economic Losses, Poverty & Disasters 19982017," 2018.
10. Aon UK. Weather, Climate & Catastrophe Insight - 2019 Insight. (2019) [Online] Available at: https://www.aon.com/global-weather-catastrophe-natural-disasters-costs-climate-change-2019annual-report/index.html?utm_source=regionemeauk&utm_campaign=natcat20
11. Roser, M., & Ritchie, H. (2014 – updated in 2019). Natural Disasters.
12. Internal Displacement Monitoring Centre. (2017.) Global Report on Internal Displacement. Available at: http://www.internal-displacement.org/global-report/grid2017/
13. UNISDR (2015). Global Assessment report on Disaster Risk Reduction. Available at; http://www.preventionweb.net/english/hyogo/gar/2015/en/home/index.html.
14. Office, UNDRR. (2020). *International Strategy For Disaster Reduction: Hyogo Framework For Action 2005-2015: Building The Resilience Of Nations And Communities To Disasters Extract From The Final Report of The World Conference On Disaster Reduction (A/CONF.206/6)*. [online] Unisdr.org. Available at: https://www.unisdr.org/files/1037_hyogoframeworkforactionenglish.pdf
15. Office, UNDRR. (2020). Sendai Framework for Disaster Risk Reduction 2015-2030. [online] Available at: https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction2015-2030
16. Office, UNDRR. (2020). Bangkok Principles on health risk agreed. Retrieved 5 June 2020, from https://www.undrr.org/news/bangkok-principles-health-risk-agreed
17. Shoaf, K. I., & Rottman, S. J. (2000). Public health impact of disasters. Australian Journal of Emergency Management, 15(3), pp. 58-63, 2000.
18. World Health Organisation. (2010). Monitoring The Building Blocks of Health Systems: A Handbook of Indicators And Their Measurement [Ebook]. Available at https://www.who.int/healthinfo/systems/WHO_MBHSS_2010_full_web.pdf
19. Angelina O. M. Chan & Chan Yiong Huak (2004) Emotional impact of 2004 Asian tsunami on Singapore medical relief workers, International Journal of Disaster Medicine, 2:4, 152-156, DOI: 10.1080/15031430510034695
20. Davis, J. R., Wilson, S., Brock-Martin, A., Glover, S., & Svendsen, E. R. (2010). The impact of disasters on populations with health and health care disparities. Disaster medicine and public health preparedness, 4(1), 30–38. https://doi.org/10.1017/s1935789300002391
21. Giorgadze T1, Maisuradze I, Japaridze A, Utiashvili Z, Abesadze G. (2011). Disasters and their consequences for public health.
22. Jennifer R. Davis, MSPH, Sacoby Wilson, PhD, Amy Brock-Martin, DrPH, Saundra Glover, PhD, and Erik R. Svendsen, PhD. (2010). The Impact of Disasters on Populations with Health and Health Care Disparities.

23. World Health Organization. Bangkok Principles for the implementation of the health aspects of the Sendai Framework for Disaster Risk Reduction 2015-2030. [online] Available at: http://www.who.int/hac/events/2016/Bangkok_Principles.pdf
24. World Health Organization. EMERGENCY SURGICAL CARE IN DISASTER SITUATIONS. (2012). [Online] Available at: https://www.who.int/surgery/publications/s16368e.pdf
25. Pyda, J., Patterson, R. H., Caddell, L., Wurdeman, T., Koch, R., Polatty, D., Card, B., Meara, J. G., & Corlew, D. S. (2019). Towards resilient health systems: opportunities to align surgical and disaster planning. *BMJ global health*, *4*(3), e001493. https://doi.org/10.1136/bmjgh-2019-001493
26. Goldmann, E., & Galea, S. (2014). Mental health consequences of disasters. *Annual Review of Public Health, 35*, 169-183.
27. DISASTER PREPAREDNESS ADVISORY COUNCIL, & COMMITTEE ON PEDIATRIC EMERGENCY MEDICINE. (2015). Ensuring the health of children in disasters. *Pediatrics, 136*(5), e1407-17. doi:10.1542/peds.2015-3112 [doi]
28. World Health Organization. (2019). Mental Health in Emergencies. [online] Available at: https://www.who.int/news-room/fact-sheets/detail/mental-health-in-emergencies
29. Danielson, C. K., Cohen, J. R., Adams, Z. W., Youngstrom, E. A., Soltis, K., Amstadter, A. B., & Ruggiero, K. J. (2017). Clinical decision-making following disasters: Efficient identification of PTSD risk in adolescents. *Journal of Abnormal Child Psychology, 45*(1), 117-129.
30. Coombe, J., Mackenzie, L., Munro, R., Hazell, T., Perkins, D., & Reddy, P. (2015). Teacher mediated interventions to support child mental health following a disaster: A systematic review. *PLoS Currents, 7*, doi:10.1371/currents.dis.466c8c96d879e2663a1e5e274978965d.
31. Shultz, J. M., Thoresen, S., Flynn, B. W., Muschert, G. W., Shaw, J. A., Espinel, Z., . . . O'Keefe, K. (2014). Multiple vantage points on the mental health effects of mass shootings. *Current Psychiatry Reports, 16*(9), 469.
32. Comer, J. S., Bry, L. J., Poznanski, B., & Golik, A. M. (2016). Children's mental health in the context of terrorist attacks, ongoing threats, and possibilities of future terrorism. *Current Psychiatry Reports, 18*(9), 79.
33. Comer, J. S., Fan, B., Duarte, C. S., Wu, P., Musa, G. J., Mandell, D. J., Hoven, C. W. (2010). Attack-related life disruption and child psychopathology in New York City public schoolchildren 6months post-9/11. *Journal of Clinical Child & Adolescent Psychology, 39*(4), 460-469.
34. Wu, P., Duarte, C. S., Mandell, D. J., Fan, B., Liu, X., Fuller, C. J., Hoven, C. W. (2006). Exposure to the world trade center attack and the use of cigarettes and alcohol among New York City public high-school students. *American Journal of Public Health, 96*(5), 804-807.
35. Lineth H.U. Bustamante., Raphael O. Cerqueira., Emilie Leclerc & Elisa Brietzke (2017). Stress, trauma, and posttraumatic stress disorder in migrants: a comprehensive review. *Brazilian Journal of Psychiatry.* [online] Available at: https://www.scielo.br/scielo.php?script=sci_arttext&pid=S1516444462018000200220
36. Hallegatte, S., Vogt-Schilb, A., Bangalore, M., & Rozenberg, J. (2017). Unbreakable. *World Bank Publications.*
37. Thiede, B. C., & Brown, D. L. (2013). Hurricane katrina: Who stayed and why? *Population Research and Policy Review, 32*(6), 803-824.
38. Tracy, M., Norris, F. H., & Galea, S. (2011). Differences in the determinants of posttraumatic stress disorder and depression after a mass traumatic event. *Depression and Anxiety, 28*(8), 666-675
39. Rhodes, A. M., & Tran, T. V. (2012). Predictors of posttraumatic stress and growth among black and white survivors of hurricane katrina: Does perceived quality of the governmental response matter? *Race and Social Problems, 4*(3-4), 144-157.
40. IMF. (2020). World Economic Outlook. [online] Available at: https://www.imf.org/en/Publications/WEO
41. World Bank. (2020). MENA Economic Update. [online] Available at: https://www.worldbank.org/en/region/mena/publication/mena-economic-update-april-2020-howtransparency-can-help-the-middle-east-and-north-africa
42. PAHO/WHO: Pan American Health Organization. (2012). Haiti Quake Efforts Were Hampered by Poor Information Sharing. [online] Available at:

https://www.paho.org/hq/index.php?option=com_content&view=article&id=6326:2012-haiti-quakeefforts-hampered-poor-information-sharing&Itemid=1926&lang=en

43. Tradingeconomics.com. (2020). GDP Annual Growth Rate - Forecast 2020-2022. [online] Available at: https://tradingeconomics.com/forecast/gdp-annual-growth-rate.

44. World Bank. (2020). Global Growth to Weaken to 2.6% in 2019, Substantial Risks Seen. [online] Available at: https://www.worldbank.org/en/news/press-release/2019/06/04/global-growth-to-weakento-26-in-2019-substantial-risks-seen.

45. Preventionweb.net. (2020). Disaster Risk - Poverty and inequality. [online] Available at: https://www.preventionweb.net/risk/poverty-inequality.

46. Hallegatte, Stephane; Rentschler, Jun; Rozenberg, Julie. (2019). Lifelines: The Resilient Infrastructure Opportunity. Sustainable Infrastructure;. Washington, DC: World Bank. [online] Available at: https://openknowledge.worldbank.org/handle/10986/31805

47. HumanitarianResponse. (2020). What is the Cluster Approach? [online] Available at: https://www.humanitarianresponse.info/en/about-clusters/what-is-the-cluster-approach

48. HumanitarianResponse. (2020.) Why Do We Need The Cluster Approach? [online] Available at: https://www.humanitarianresponse.info/en/about-clusters/why-do-we-need-the-cluster-approach

49. HumanitarianResponse. (2020). Health. [online] Available at: https://www.humanitarianresponse.info/en/coordination/clusters/health