



Health Equity Issues in Disasters – The Role of Family Physicians
 2019 AAFP Global Health Summit, Albuquerque, New Mexico
 Kim Yu, MD, FAAFP, Vituity, California, USA
 @drkkyu
 #inspirecreatelead

Types of Disasters

Natural

Meteorological
 (eg, hurricane, blizzard, heat/cold wave)
 Geological
 (eg, earthquake, volcanic eruption, flood)
 Other
 (eg, fire, explosion, disease outbreak)

Accidents

Transportation
 (eg, airplane, bus, train)
 Structural
 (eg, building or bridge collapse)
 Nuclear
 (eg, radioactive waste release, meltdown)
 Agricultural or Industrial
 (eg, hazardous chemical or biological spill or other exposure, fire, explosion)

Intentional Acts of Violence

Bombing
 Shooting
 Nuclear/Radiological
 (eg, fissile bomb, "dirty" bomb, or other types of radiological poisoning)
 Biological Agent
 Bacteria, Virus, Toxin
 Chemical Agent
 Nerve agent, Blister agent, Precursors, Choking Agents, Blood agents, Riot control agents

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Health Equity Issues in Disasters – The Role of Family Physicians

2019 AAFP Global Health Summit, Albuquerque, New Mexico
 Kim Yu, MD, FAAFP, Vituity, California, USA
 @drkkyu
 #inspirecreatelead

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Issues or challenges

A sizable portion of physicians (48-56 %) report a lack of training regarding disasters

Local governments without adequate disaster management plans

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Definition of a Disaster

A sudden calamitous event bringing great damage, loss, or destruction

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Issues or challenges

Lack of resources

- Energy Generators
- Water storage
- Food storage
- Medications back up
- Sanitizing and cleaning materials
- Construction materials
- Means of communication with other countries
- Refrigeration
- Dialysis
- Oxygen supply
- Air conditioning

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Disaster Risk Reduction

Disaster risk reduction is a systematic approach to identifying, assessing and reducing the risks of disaster. It aims to reduce socio-economic vulnerabilities to disaster as well as dealing with the environmental and other hazards that trigger them.

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Sendai Framework for DRR

- Aims for the following outcomes:
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



AMERICAN ACADEMY OF FAMILY PHYSICIANS

Sendai Framework for Disaster Risk Reduction

This is an international document which was adopted by the United Nations member states between 14th and 18th of March 2015 at the World Conference on Disaster Risk Reduction held in Sendai, Japan in June 2015.

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Four priorities for action

Disaster risk management should be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment.

Such knowledge can be used for **risk assessment, prevention, mitigation, preparedness and response.**

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Sendai Framework for Disaster Risk Reduction (2015–2030)

The Sendai Framework is a 15-year, voluntary, non-binding agreement which recognizes that the State has the primary role to reduce disaster risk but that responsibility should be shared with other stakeholders including local government, the private sector and other stakeholders.

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Four priorities for action

Priority 1. Understanding disaster risk



Disaster risk management should be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure or persons and assets, hazard characteristics and the environment .

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Four priorities for action

Priority 2. Strengthening disaster risk governance to manage disaster risk



Disaster risk governance at the national, regional and global levels is very important for prevention, mitigation, preparedness, response, recovery, and rehabilitation. It fosters collaboration and partnership.

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Seven Global Targets

- REDUCE
 - Mortality
 - Affected people
 - Economic loss
 - Damage to critical infrastructure & disruption of basic services
- INCREASE
 - Countries with national & local DRR strategies
 - International cooperation to developing countries
 - Availability and access to multi-hazard early warning systems & disaster risk information and assessments

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Four priorities for action

Priority 3. Investing in disaster risk reduction for resilience



Public and private investment in disaster risk prevention and reduction through structural and non-structural measures are essential to enhance the economic, social, health and cultural resilience of persons, communities, countries and their assets, as well as the environment

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Health Equity

• "Health equity" = ideally everyone should have a fair opportunity to attain their full health potential and that no one should be disadvantaged from achieving this potential.



AMERICAN ACADEMY OF FAMILY PHYSICIANS

Four priorities for action

Priority 4. Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction



The growth of disaster risk means there is a need to strengthen disaster preparedness for response, take action in anticipation of events, and ensure capacities are in place for effective response and recovery at all levels. The recovery, rehabilitation and reconstruction phase is a critical opportunity to build back better, including through integrating disaster risk reduction into development measures.

AMERICAN ACADEMY OF FAMILY PHYSICIANS

A reminder



PC Kim Yu, MD



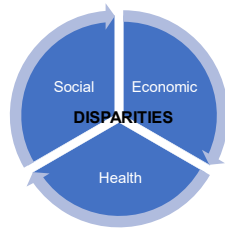
PC Kim Yu, MD

18

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Disparities in Disasters

- Access to Resources and Health Services
- Exposure to Hazards
- Inequalities
- High Vulnerabilities to Disease
- Poverty
- Environment



19

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Crisis in Flint Water



22

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Roles in Disaster



AMERICAN ACADEMY OF FAMILY PHYSICIANS

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Advocacy



23

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Complex Disaster

- Roles of Government
- Roles of Organized Structures
- NGOs
- Crisis Standards of Care
- Quarantelli Paradigm – incident command centers, DMAT etc.

Up to 90% of care after a disaster is provided in the outpatient space

Quarantelli (1995) on Need for Minimum Consensus

"... To be concerned about what is meant by the term 'disaster' is not to engage in some useless or pointless academic exercise. It is instead to focus in a fundamental way on what should be considered important and significant ..."

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Hurricane Maria September 18, 2017



AMERICAN ACADEMY OF FAMILY PHYSICIANS



Puerto Rico – Hurricane Maria – the importance of collaboration

#AAFP #MEMBERMONDAY
Kim Yu, MD, FAFP
 "The Puerto Rico Academy is so close to my heart. When Hurricane Maria hit, it not broke my heart to see the devastation."

AMERICAN ACADEMY OF FAMILY PHYSICIANS



What started with one generator and one FB post



Led to more than \$103,000 being raised, 66 generators, food, supplies, medications, water

Including a \$25k donation from the AMA Foundation!

Lives saved - thousands

60 tons of medicines, medical supplies & equipment to Puerto Rico mostly on private planes, airline donations, & purchasing on island. On the receiving end were hospitals, clinics, cancer centers, shelters, senior citizens, and group homes for children in 70 of the 78 municipalities of Puerto Rico, including the offshore islands of Vieques and Culebra.

ABC Channel 7 news
WISC TC Channel 3 news

Multiple radio and newspaper or magazine articles, blogposts, facebook live events, tweets, even Catholic World health news!

Jeep brigade traveled through closed roads delivering medications, supplies, food and water.



AMERICAN ACADEMY OF FAMILY PHYSICIANS

Coordinating your Team




AMERICAN ACADEMY OF FAMILY PHYSICIANS


Consequences of Advocacy

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Keeping your team safe

- Dan Diamond
- Haiti Earthquake




AMERICAN ACADEMY OF FAMILY PHYSICIANS

Options for Water

Filters – personal – lifestraw
household – biosand
community based - waterstep

Other: Silver impregnated water purification bars



AMERICAN ACADEMY OF FAMILY PHYSICIANS

Planning for the future

- Triage training
- Supply lists and chain
- Build your team
- Find community partners
- Store supplies
- Communication

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Prepare prepare prepare

- Emergency Bag
- Food
- Water
- Medications
- Light
- Power
- Psychological First Aid Training

AMERICAN ACADEMY OF FAMILY PHYSICIANS



40

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Hurricane Dorian, Bahamas Sept, 2019

AMERICAN ACADEMY OF FAMILY PHYSICIANS

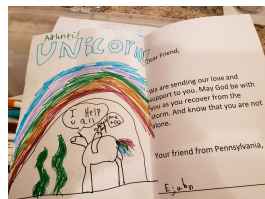
Provide what is needed

- Food
- Water
- Clothes
- Underwear
- Housing
- Body Bags
- Trauma Informed Physicians
- Child Life Specialists
- Wheelchairs
- Hope

Tips and pearls:
Be sensitive to culture
Listen
Be humble
Listen again

41

AMERICAN ACADEMY OF FAMILY PHYSICIANS



AMERICAN ACADEMY OF FAMILY PHYSICIANS

Barriers to addressing disparities and vulnerability in disasters:

- Government mistrust.
- Layered disasters. Hazards tend to harm segments of the population that were already disadvantaged before a disaster.
- Cost
- Organizational vulnerabilities
- Misconceptions - segments of the populations are marginalized, causing systematic exclusion from the social environment.

42

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Training with contextual adaptation

- Advantage of training is a physician workforce that has a higher response rate and is more comfortable in their roles in a disaster



AMERICAN ACADEMY OF FAMILY PHYSICIANS

Other resources

Think of your circles!

- Federal
- Local
- State Chapters
- AAFP Foundation
- Facebook groups
- Member Interest Groups
- WONCA
- Use of Social Media
- Others



46

AMERICAN ACADEMY OF FAMILY PHYSICIANS

• Neighborhood Navigator

Health Equity Tools

The EveryONE Project™
Advancing health equity in every community



As part of a continued commitment to help our members address social determinants of health (SDOH) at point of care, the AAFP's EveryONE Project offers tools for screening patients to identify social needs, and addressing health equity in your practice.

The Neighborhood Navigator provides the next step for improving social determinants of health among your patients.

As an AAFP Member, you can use this interactive tool at point of care to connect patients to resources and programs in their neighborhoods. This tool lists over 40,000 social services by zip code, including:

- Food
- Housing
- Transportation
- Employment aid
- Legal aid
- Financial

44

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Recommended Disaster Medicine Curriculum Guidelines for Family Medicine Residents

Medical Knowledge

A basic understanding of the primary importance of safety in disaster responses, including personal protective equipment, decontamination, and site security

Patient Care

An understanding of the principles of triage and the ability to effectively perform triage in a disaster setting. The clinical competence to provide effective care in a setting of extremely limited resources.

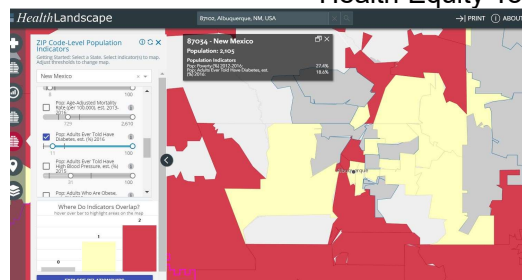
Systems-based Practice

A basic knowledge of the National Incident Management System (NIMS) and the Incident Command System (ICS), including its application to the planning, coordination, and execution of disaster responses. An understanding of psychological first aid and caring for responders.

AMERICAN ACADEMY OF FAMILY PHYSICIANS

• Health Landscape

Health Equity Tools



45

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Online Resources for Training and Practice of Disaster Medicine Training Resources

- Advanced Trauma Life Support: www.facs.org/trauma/atls/index.html
- American Heart Association (advanced cardiac life support [ACLS] course): www.americanheart.org/presenter.jhtml?identifier=3011972
- American Heart Association (pediatric advanced life support [PALS] course): www.americanheart.org/presenter.jhtml?identifier=3012001
- Comprehensive Advanced Life Support (CALS): www.calsprogram.org/
- Federal Emergency Management Agency (NIMS, ICS, and other online training): www.fema.gov/about/training/index.shtm
- International Critical Incident Stress Foundation (management information and training): www.icisf.org/
- JumpSTART Pediatric Triage Tool: www.jumpstarttriage.com/
- National Disaster Life Support Foundation: www.bdls.com/

AMERICAN ACADEMY OF FAMILY PHYSICIANS

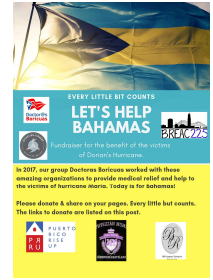
General Resources

- American Academy of Family Physicians: www.aafp.org
- American Hospital Association (AHA) Emergency Readiness: www.hospitalconnect.com/aha/key_issues/disaster_readiness/
- American Medical Association: www.ama-assn.org
- Association of State and Territorial Health Officials: www.astho.org
- Centers for Disease Control and Prevention: www.cdc.gov
- Centers for Disease Control and Prevention Emergency Preparedness and Response: www.bt.cdc.gov
- Federal Emergency Management Agency: www.fema.gov
- Johns Hopkins Office of Critical Event Preparedness and Response (CEPAR): www.hopkins-cepar.org/
- US Army Medical Research Institute of Infectious Diseases: www.usamriid.army.mil/index.htm
- US Department of Health and Human Services National Disaster Medical System (NDMS): www.hhs.gov/aspr/oepo/ndms/

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Conclusion

- Prepare and Respond with a Health Equity Lens
- We need to train and equip ourselves
- We need to learn field-level care, how to deal with crush and blast victims, and how to deal with the emotional issues of patients, their loved ones, and our co-workers.
- We need to connect and collaborate with others.
- We are #FamilyMedicineStrong!



52

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Role Play

- Break into teams
- Assign the following roles: Team Leader, Supply coordinator, Transportations, Safety manager, Food/water, Communications. Also assign a time keeper to keep your team on task. You have 7 minutes. Be prepared to report out what your group's plan will be.
- Create a flow sheet highlighting what you will do for each role in the event of the following disaster
- Disaster description – you are in a community of 10,000. An earthquake 8.3 on richter scale has devastated your town. Many buildings collapsed. There are only 5 doctors to help. The hospital in town is non operational. You have one small clinic that has one room that is usable. You have intermittent electricity, and little water left. Only one street comes in and out of town. The nearest large town is 6 miles away. They also are devastated.

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Thank you for being part of the Global Family Medicine Revolution!



#InspireCreateLead @drkkyu

AMERICAN ACADEMY OF FAMILY PHYSICIANS

Conclusion

“do something, do more, do better.”

– Professor Sir Michael Marmot, October 2019



- Family Physicians are **key** players in a disaster – our place in the community is so much greater than just our office and hospital work.
- Health Equity becomes even more important during times of disaster

AMERICAN ACADEMY OF FAMILY PHYSICIANS

References

- American Academy of Family Physicians Home Study Self-Assessment (HSSA), Home Study Monograph 337. Medical Aspects of Disaster Management, Leawood, KS. American Academy of Family Physicians 2007.
- Disaster Medicine Training in Family Medicine: A Review of the Evidence. Huntington, MK et al. Fam Med 2011 Jan; 43 (1):13-20.
- Sendai Framework for Disaster Risk Reduction 2015-2030 Supported by UNISDR (United Nations Office for Disaster Risk Reduction)
- Southern Medical Journal, Disaster Management and Physician Preparedness, Ajoy Kumar, MD, FFAFP, and Eilene Weibley, MD Jan 2013; Volume 106, Number 1.

AMERICAN ACADEMY OF FAMILY PHYSICIANS

© 2018 American Academy of Family Physicians. All rights reserved.

All materials/content herein are protected by copyright and are for the sole, personal use of the user.

No part of the materials/content may be copied, duplicated, distributed or retransmitted
in any form or medium without the prior permission of the applicable copyright owner.

