Disaster Risk Reduction & The Medical Reserve Corps

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Disaster Risk Reduction is a framework for communities to utilize to lessen the impact of disasters from natural hazards through increasing resilience and reducing vulnerability.

Focus is on actions that are **PROACTIVE** rather than **REACTIVE**.
Assumption #1

“There’s no such thing as natural disasters, only natural hazards.”

- A disaster happens after the hazard and is dependent on the community’s vulnerability

2014 The United Nations Office for Disaster Risk Reduction; [www.unisdr.org](http://www.unisdr.org)
Math Part I: Basic DRR Equation

\[ D = H(x) V \]

Disasters are the impact of the Hazard multiplied by the impact of the Vulnerability.

D = Disaster
H = Hazard
V = Vulnerability

Keim, Mark E. 2011 “Integrating the MRC into Community-Based Disaster Risk Reduction.” Presentation at the Region V and VII MRC Regional Conference.

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Assumption #2

- It’s hard to reduce a hazard, but we can reduce our vulnerability to the hazard.
Let’s Talk about Vulnerability

“The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effect of a hazard.” *

How at risk are you (or is your community) to physical or emotional injury?**

*2014 The United Nations Office for Disaster Risk Reduction; www.unisdr.org

**Keim, Mark E. 2011 “Integrating the MRC into Community-Based Disaster Risk Reduction.” Presentation at the Region V and VII MRC Regional Conference.

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Math Part II: Basic Vulnerability Equation

\[ V = \frac{E \times S}{R} \]

Vulnerability is your Exposure to the Hazard multiplied by your Susceptibility. Your Resilience can reduce your Vulnerability.

- **V** = Vulnerability
- **E** = Exposure to the Hazard
- **S** = Susceptibility to the Hazard
- **R** = Resilience

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Assumption #3

Vulnerability is reduced through:

- Reducing Exposure (hard)
- Reducing Susceptibility
- Increasing Resilience
Exposure:
- “People, property, systems, or other elements present in hazard zones that are thereby subject to potential losses.”

Susceptibility:
- “The state of being at risk, if exposed to a hazard.”
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”.

V = E (x) S

R

2014 The United Nations Office for Disaster Risk Reduction; [www.unisdr.org](http://www.unisdr.org)
Disaster = H x V

V = \frac{(E \times S)}{R}

H = Hazard
V = Vulnerability of a Population
E = Exposure to the Hazard
S = Susceptibility to the Hazard
R = Resilience
Assumption #4

- Resilience through human action can be incredibly effective!

According to Dr. Mark Keim:

“An example of human action that affects resilience is social organization that facilitates (or hinders) response and recovery.”


Engaging volunteers to strengthen public health, emergency response, and community resiliency
Medical Reserve Corps
Vision:

Dedicated Volunteers and Strong Active Units…

Building Resiliency and Reducing Vulnerability

Engaging volunteers to strengthen public health, emergency response, and community resiliency
The 5 W’s of the MRC

**Who:** Medical & non-medical volunteers who care about public health & preparedness

**What:** Engage in preparedness & public health community activities

**When:** Founded following September 11th

**Where:** Over 1000 units throughout the U.S. located in health departments, emergency management, hospitals

**Why:** Increase community resilience & reduce vulnerability
# How Does the MRC Build Resilience?

<table>
<thead>
<tr>
<th>Potential Vulnerability</th>
<th>MRC Activity (Increasing Resilience/Reducing Susceptibility)</th>
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</thead>
<tbody>
<tr>
<td>Loss of Shelter</td>
<td>Shelter with Support Services</td>
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<tr>
<td>Loss of Sanitation &amp; Hygiene</td>
<td>Health Education &amp; Promotion</td>
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<td>Loss of Healthcare Services</td>
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<td>Increased Mental Illness</td>
<td>Psychological First Aid Training Post-disaster Screening and Referral</td>
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<td>Exacerbation of Chronic Disease</td>
<td>Health Screenings Community-Based Primary Care Outreach</td>
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<tr>
<td>Community Panic</td>
<td>Health Education Call Center Support</td>
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Engaging volunteers to strengthen response, and community resiliency
Thank You!

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www.medicalreservecorps.gov

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