Resilient Communities Rochester: Zombies as Teachers

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MRHC, June 20, 2016
Disclaimer

Some Images May be Graphic
Lessons

• Lesson 1 – If you Build it, They Will Come
• Lesson 2 – Make Friends
• Lesson 3 – Tell a Story
• Lesson 4 – Take Care of Your People
• Lesson 5 – Talk to One Another
• Lesson 6 – This is Only the Beginning
• Lesson 7 – Pass the Torch
Lesson 1: If You Build It, They Will Come
Resilient Communities Rochester
What is it exactly?

• Fluid collection of members

• Associated with
  • Mayo Clinic, ZVMS, Olmsted County PH, etc.

• Sponsor
  • “Pizza and a Sim” series
  • “Bounce Day” Disaster Simulation
Bounce Day – 5 W’s

• Who: Community of Learners (not just Mayo students)
• What: Field exercise
• When: Annually, one day, in the fall
• Where: In “the field” – low resource
• Why: Engage diverse learners, introduce global health/underserved medicine, equip the community
Background
Project Objectives

- The intent and goal of the Bounce Day simulation is to increase community resilience for disaster response and recovery by training health care professionals and community members to respond to a simulated disaster. In the process we will:
  - Build response skills
  - Build confidence
  - Build interprofessional team skills
  - Build leadership
  - Develop trust
Humble Beginnings
A Complex Success
Simulation Based Training for Health Care Providers

- Team STEPPS
- PFA
- Communication
- Mobile IT
- Leadership

Figure 1.
2011
2014

Behind the Scenes
Project Design

3 Stages

- Faculty training
  - Debriefing techniques
  - Team building

- Med Student “Preload”
  - Specific trauma skills

- “Bounce Day”
  - Capstone Event at Gamehaven
  - Mass casualty simulation
Project Design
Med Student Preload

• Teams of 6 paired with multidisciplinary faculty

• Specific trauma skills
  • ABCDE, chest tube
  • Team roles and communication (TeamSTEPPS)

• Not evaluated for competency
  • Formative learning
Bounce Day
The Big Day

• 200+ actors and responders gathered at Gamehaven Scout Reservation
Gathering
Bounce Day

The Big Day

• 200+ actors and responders gathered at Gamehaven Scout Reservation

• Actors moulaged and given scenarios
  • Social and communication complexities
Moulage
Moulage
Moulage
Bounce Day
The Big Day

• 200+ actors and responders gathered at Gamehaven Scout Reservation

• Actors moulaged and given scenarios
  • Social and communication complexities

• Responders divided in many teams
  • Field hospital, dispensary, security, aid station, etc.
  • “Just in Time” Training
Game Field Design
Bounce Day
Exercise Design

• Ran the simulation twice
  • Team STEPPS debriefing between

• Large group debrief

• Community education static stations
Lesson 2: Make Friends
A Natural Evolution

Beginning
• Mayo

2013
• Boy Scouts
• Acting Group

2014
• Local Nursing Schools
• Olmsted County PH
• Sheriff’s Office

2015
• International Visitors
• State representatives

2016
• ?
Community Participation
By the Numbers

- Beginning: 50
- 2013: 100
- 2014: 200
- 2015: 300
- 2016: ?
Lesson 3: Tell a Story
“Play the Movie”
CDC: Preparedness 101

GET A KIT
MAKE A PLAN
BE PREPARED

EMERGENCY.CDC.GOV
The Story

Creating a Zombie Apocalypse
The Story
A Disease is Born

• HADAD – Hemorrhagic Acral Dermatitis with Anesthetic Delirium
  • Many realistic symptoms
The Story
A Disease is Born

• HADAD – Hemorrhagic Acral Dermatitis with Anesthetic Delirium
  • Many realistic symptoms
• Series of “Edutainment” Videos
  • Featuring yours truly
“Corny Van Held”

Corny Van Held
Cornfield, IA
The Story
A Disease is Born

• HADAD – Hemorrhagic Acral Dermatitis with Anesthetic Delirium
  • Many realistic symptoms

• Series of “Edutainment” Videos
  • Featuring yours truly

• Blog with “News” updates
  • Organizational Center
Bounce Day Blog

Bounce Day

Bounce Day aims to improve community resilience through an integrated disaster response experience that provides opportunities for education, collaboration, and innovation. Bounce Day is put on by a collaboration of Mayo Clinic researchers, educators and students, Boy Scouts, Girl Scouts, Military medical personnel, local medical alliances, theatre groups and lay community members. Actors simulating illness (zombies) and those affected by the crumbling of society will interact with participants learning both medical and nonmedical response protocols ranging from vaccination and treatment to refugee camp management and security.

Registration Forms
Sign Up to Receive Information about Bounce Day 2015
Release Forms (Please Print and Bring to Event)

Find Us On
Twitter
Facebook
YouTube

Useful Apps/Tools for Resilience
Responder Self Care
Zombies, Run! (Running Fitness App)

In the News
KTTC 2013
Post Bulletin 2013
My Fox 47 2013

Our Partner Organizations
Mayo Medical School
Mayo Graduate School
Mayo Administrative Fellowship Program
Gamehaven Scout Camp
Zumbro Valley Medical Society
The Medical Reserve Corps
Channel One Food Bank
Salvation Army Rochester
DoIThing.org

Monday, September 15, 2014

News Coverage of the 2014 Bounce Day

Additional Resources
The Centers for Disease Control and Prevention
The CDC Foundation
First Aid Guidelines - American Heart Association

Boy Scout Merit Badge
Boy Scouts may qualify for the Emergency Preparedness Award after completing this event and the other
The Story
A Disease is Born

• HADAD – Hemorrhagic Acral Dermatitis with Anesthetic Delirium
  • Many realistic symptoms
• Series of “Edutainment” Videos
  • Featuring yours truly
• Blog with “News” updates
  • Organizational Center
• Facebook
• Twitter
An Evolving Plot Line

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>• Displaced Refugees</td>
</tr>
<tr>
<td>2012</td>
<td>• Tornado</td>
</tr>
<tr>
<td>2013</td>
<td>• Zombies: Canada vs. Minnesota</td>
</tr>
<tr>
<td>2014</td>
<td>• Zombies: Iowa vs. Minnesota</td>
</tr>
<tr>
<td>2015</td>
<td>• Zombies: School Bus</td>
</tr>
<tr>
<td>2016</td>
<td>• Zombies: Violent Intruder?</td>
</tr>
</tbody>
</table>
Lesson 4: Take Care of Your People
The Known

Disaster Simulation

Real-World Response

Adverse Psychological Events
The Question

Disaster Simulation

Adverse Psychological Events
Psychological First Aid

• Can disaster simulation predispose to adverse psychological events?

• If so, how can we predict at-risk individuals and prevent exposure?
  • WHO-5 Wellbeing Index
Psychological First Aid (PFA)

• What is PFA?

An evidence-informed approach, built on the concept of human resilience, that aims to reduce stress symptoms and assist in a healthy recovery following a traumatic event, natural disaster, public health emergency, or even a personal crisis.

• Goals of PFA

1) Safety
2) Calm & Comfort
3) Connectedness
4) Self-Empowerment/Care
5) Hope

http://www.health.state.mn.us/oep/responsesystems/pfa.html
What Does this Mean for Us?

• Safety briefing
  • Physical, psychological, cultural safety

• Formative learning style
  • Avoid micro-trauma

• teamSTEPPS
  • Debriefing in groups

http://www.health.state.mn.us/oep/responsesystems/pfa.html
Lesson 5: Talk to One Another
Team STEPPS
( Strategies To Enhance Performance and Patient Safety )

See: www.ahrq.gov for more!
Team STEPPS

• Leadership
• Situation monitoring
• Mutual support
• Communication

TeamSTEPPS is comprised of four teachable-learnable skills: Leadership, Situation Monitoring, Mutual Support, and Communication; the core of the TeamSTEPPS framework. The red arrows depict a two-way dynamic interplay between the four skills and the team-related outcomes. Interaction between the outcomes and skills is the basis of a team striving to deliver safe, quality care. Encircling the four skills is the patient care team which not only represents the patient and direct caregivers, but those who play a supportive role within the healthcare delivery system.

...TeamSTEPPS is an evidence-based framework to optimize team performance across the healthcare delivery system.
Lesson 6: This is Only the Beginning
Themes to Explore

• Human rights - "Do the right thing"
  • Refugee camp
  • Our zombies don't die (wide spectrum of learners)

• Public health
  • Natural disasters
  • Interaction of public and private responders
Do the Right Thing
Future Partners

• Doctors of Tomorrow (OYAM)

• American Indian Society of Engineering and Science (AISES)

• UMD-Mayo “Simul-Sim”
Doctors of Tomorrow (OYAM)
NMSA Leaders Conference
Mayo-Cannon Falls In-Situ Sim
Lesson 7: Pass the Torch
## Requirements to Replicate

<table>
<thead>
<tr>
<th>Need</th>
<th>Possibilities</th>
</tr>
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<tbody>
<tr>
<td>“Playing” Field</td>
<td>Boy scouts, State Park, minimal infrastructure</td>
</tr>
<tr>
<td></td>
<td>Where would people assemble in a “real” disaster</td>
</tr>
<tr>
<td>Core group of organizers</td>
<td>Adapt to scale Doctors, PH, Nurses, Med students</td>
</tr>
<tr>
<td>Partners</td>
<td>Local Army or National Guard Local EMS, Fire Department Local Public Health Department Schools</td>
</tr>
<tr>
<td>Community Members</td>
<td>Boy Scouts, Rotary, Lions, High schools “extra credit”</td>
</tr>
<tr>
<td>Fun!</td>
<td>Every step of the way!</td>
</tr>
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Your Turn - UMD

• 5 Minute Scenario
• “Formative learning”
  • Not graded
  • Everyone involved, everyone learns
• “Alibi”
  • No need to apologize
  • Contribute information as available
Thanks

Leona C. Han, MBA
Brynn N. Howard, MHA
Cydni A. Smith, MHSA
Kathryn Zavaleta, MHSA
Lori Scanlan-Hanson, RN, MS
Claudia Swanton, DNP, RN, CNP
Ashok Patel, MD
Robin Molella, MD, MPH
And so many more…
Bounce Day 2016

Sunday, September 25, 2016
Gamehaven Boy Scout Reservation
Rochester, MN

http://www.bounceday.org/

For more info!
Questions & Discussion