Adaptive Learning and Training in an Austere Fiscal Climate

Skip A. Payne, MSPH, REHS/RS, LCDR, USPHS
Program Officer, Training and Support Services, Division of the Civilian Volunteer Medical Reserve Corps, Office of the Surgeon General
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  - Attempts to provide due credit have been made when possible.
- All other points/comments are mine and not the opinion of the aforementioned contributors or my agency/division.
Attendees will be able to:

- Summarize the DCVMRC/MRC case study
- Recognize the effects of the programmatic lifecycle stage on DCVMRC and MRC training needs
- Explain the effects of network topology in determining modes/methods of training for the MRC
- Restate the fiscal implications related to the training modes discussed in the presentation
A Brief MRC Network Overview

- Following 9/11 and the Anthrax attacks,
- thousands of unaffiliated volunteers showed up at sites to help

- Problems:
  - No way to ID or credential
  - Not covered under liability laws
  - No Incident Command System (ICS) training
  - No management structure
MRC Model - No “typical” MRC

- All MRC units:
  - Provide an organization structure for utilizing members
  - Pre-identify members
  - Verify professional licensure/certification
  - Train/prepare

- Units vary by:
  - Housing organizations – LHD, hospital, CHC, faith-based org.
  - Partner organizations
  - Types/number of volunteers
  - Local mission/activities - emergency response, public health, veterinary
Why One Model Would not Work

- Communities differ by:
  - Population
  - Geography
  - Community government structure
  - Health needs
  - Laws and local government structure

One “size” does not fit all.
MRC Volunteers

- Medical and public health professionals
  - in training
  - active practice
  - inactive/retired
- Students
  - secondary and post secondary
- Other interested individuals
  - can help with leadership, communications, administration, logistics, etc…

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

- Overview:
  - National Network
  - Mission to engage volunteers to strengthen public health, emergency response and COMMUNITY resiliency
  - Operates/utilized LOCALLY
  - Affiliates and integrates with existing programs and resources
Engaging volunteers to strengthen public health, emergency response, and community resiliency.
Key Messages

- Mapping ideas, thoughts and processes
  - easier for leadership
    - early review work output
  - improves efficiency and effectiveness of our staff.
- Focusing some of our resources on a shared distributed learning network
  - increases the provider’s ability to deliver content to the larger Public Health/Medical audience
  - more efficient than increased funding to any single training program.
Natural Question #1

- Has the idea of investing in an elemental infrastructure, over directly funding a given core program, been tried before?
Answer: Question #1

- **Distributed Computing**
  - **Folding@home**: Simulates the folding of proteins by using processing time on otherwise idle computers across the Internet. ([http://folding.stanford.edu/English/HomePage](http://folding.stanford.edu/English/HomePage))

- **Distributed "Gaming"/Peer Networks**
  - Companies allow you to sell your products through their respective platforms direct to others.
  - Even economies have been affected by peer to peer technology with no central authority

- **Distributed Learning Management**
Natural Question #2

- So what do these examples have to do with distributed work and the delivery of work product and distributed learning networks and the delivery of training content?
All deal with limited resources.
- Computer processing power, product viability/market position, ability to track all users’ training in one location, respectively.
- All have a cost, but the costs are born collectively by voluntary participants.
  - NOTE: The costs are not voluntary…used to support the system but participation in the "network" is voluntary. In the case of the DCVMRC, early leadership intervention, as needed, reduces cost and wasted time.
- The systems all operate under a "network of trust" to build a better product/service.
The way this ideology affects

THE DIVISION OF THE CIVILIAN VOLUNTEER MEDICAL RESERVE CORPS

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General Division of the Civilian Volunteer Medical Reserve Corps Overview

- The Division of the Civilian Volunteer Medical Reserve Corps (DCVMRC) is:
  - led by CAPT Robert Tosatto
  - the program office within the Office of the Surgeon General that works on behalf of the Medical Reserve Corps (MRC) Network. We are not the MRC, per se.
  - Split between “home” office staff, contractors, a Cooperative Agreement Partner, and regional representatives.
Internal Training Tool Utilization

DCVMRC

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MindMapping as a Knowledge and Task Capture Tool

- Presentation building/Ideation sharing
- Workload management/SOP generation - Snapshot of work assignments
- SharePoint examples
- Document Writing - FDC devolution example
Example of Presentation Building

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Engaging volunteers to strengthen public health, emergency response, and community resiliency
Ideation Sharing
(Training Dynamics)

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SharePoint Collaboration (SLaTS)

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SharePoint Collaboration (Staff Retreat)

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Engaging volunteers to strengthen public health, emergency response, and community resiliency.
The way this ideology affects

THE MEDICAL RESERVE CORPS

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NETWORK TRAINING TOOLS

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Topology Driven Training Decisions

- Preferential attachment of organic network v. matrix topology of top down organizations.
- Command and Control v. Advise and Link Resources
What type of network are we dealing with?

HUBS: Defined as units who display innovation and organic network leadership.

(a) Random network
(b) Scale-free network
Command and Control vs Advise and Link Resources

Direct connection required to all units

Direct connection required to a select few

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Distributed Learning Platform (MRC-TRAIN Concept) Explanation

Leveraging potential

- DCVMRC offered training
  - Only offered on the most generic of topics, such as MRC 101
  - Psychological First Aid (with partner)
- Partner offered Training
  - CDC-TRAIN example
  - Training Plan example
- Generally offered Training
  - FEMA Training

System is free for course providers and to be a MRC user.
TRAIN Affiliate Coverage

THE NATION'S PREMIER TRAINING PORTAL FOR PUBLIC HEALTH

"For Us, By Us" Designed with Extensive Input from Public Health Professionals

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Psychological First Aid

- The system uses a rating system that helps us “see” the perceived value of the course. For instance one of the PFA courses was rated 4.25/5 stars by 16 users.
  - “Great resources and easy to follow along. I liked that I could take breaks since it was a long program.”
  - “Excellent course”
  - “Covered subject well, would recommend!”
CDC-TRAIN Example

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Training Plan Example

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Many Course Providers, One Transcript

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Limitations

- Need to rely on network feedback.
- Requires staff to proffer expertise to partners.
- Fairly steep learning curve to manage effectively.
- Systematic maintenance fees and "glitch" repairs.
- Update/Upgrading of System features.
- Unknown and unforeseeable limitations due to network topology.
Danger Ahead!

- The Hazard of Over-tweaking
  - Beware of the Braess’s Paradox
    Adding an intuitive, and thought to be helpful, link negatively impacts network users (Braess, Nagurney, & Wakolbinger, 2005),

Summary

- The DCVMRC/MRC case study
- The effects of the programmatic lifecycle stage on DCVMRC and MRC training needs
- The effects of network topology in determining modes/methods of training for the MRC
- The fiscal implications related to the training modes discussed in the presentation
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