

Principles of Planning for Disaster Risk Reduction

Clinician Outreach and Communication Activity (COCA) Conference Call September 18, 2012

Objectives

At the conclusion of this session, the participant will be able to accomplish the following:

- ❑ Describe the characteristics of an effective disaster risk reduction plan**
- ❑ Compare and contrast objective-based planning, operational level planning, and capacity-based planning**
- ❑ List steps required for exposure reduction, susceptibility reduction, and resilience strengthening following a disaster**

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TODAY'S PRESENTER



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Principles of Planning for Disaster Risk Reduction

Mark Keim, MD

Senior Science Advisor

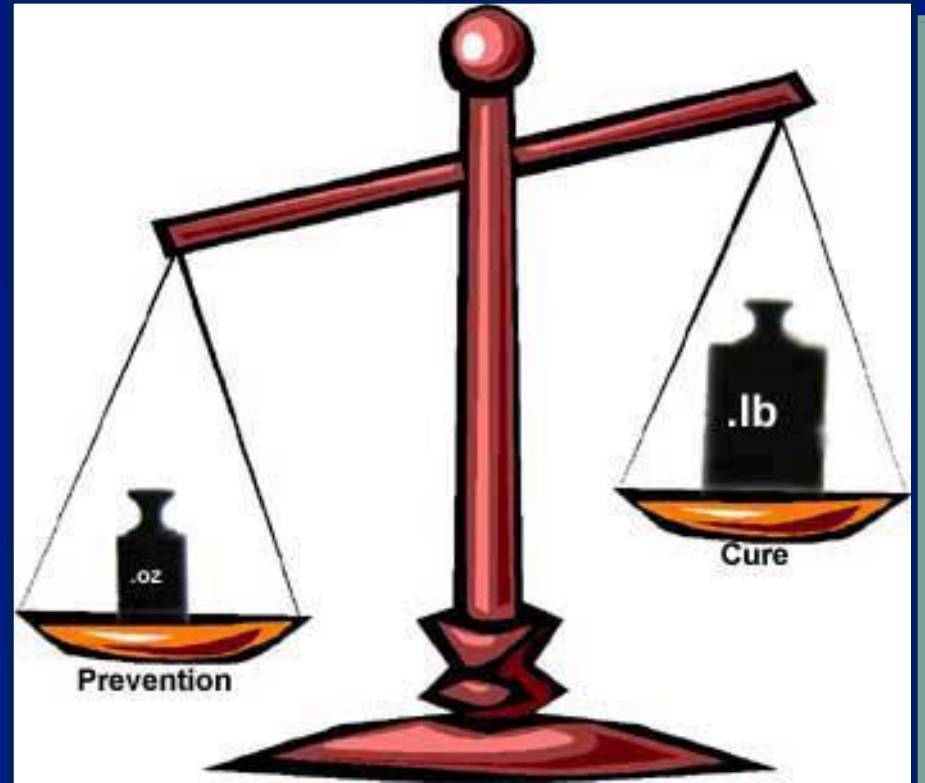
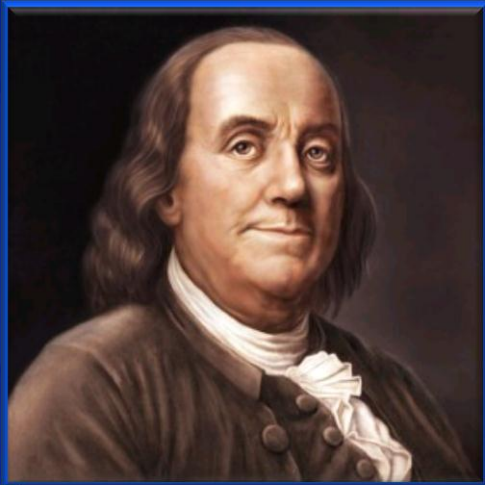
Why do we plan for health emergencies?

- To save lives and lessen suffering



Why do we plan for disaster risk reduction ?

- To **prevent** illness, injury and deaths



Good plans are:

- **Simple** to use
- Written by a **group**
- Written by the **people that will do the work**
- Based upon **goals** set by leadership



Good goals are SMART

- **Specific**
 - Good goals state exactly how tasks are to be performed
- **Measurable**
 - Good goals describe measurable signs of progress
- **Attainable**
 - Good goals are within our ability to achieve
- **Realistic**
 - Good goals are based upon realistic expectations
- **Time-based**
 - Good goals have a time schedule for completion



Good plans

answer 5 questions:

- **WHAT** tasks should we perform?
- **WHO** will we perform the tasks?
- **HOW** will we perform the tasks?
- **WHEN** will we perform the tasks?
- **WHERE** will we perform the tasks?

Good plans are O²C³:

- **Objective-based**
 - Include measurable objectives
- **Operational**
 - Written to include operational-level detail
- **Consensus-based**
 - Are developed by consensus among stakeholders
- **Capability-based**
 - Based upon what we are actually capable of doing
- **Compliant** with local, state and national strategies
 - Follows guidance from leadership

Objective-Based Planning

Establishes a set of objectives and identifies activities that will accomplish each objective



Operational Level Planning

Details how strategic objectives, goals, or plans will be accomplished:

- Where are we now?
- Where do we want to be?
- How do we get there?
- How do we measure progress?

Consensus-based planning

- The best plans are written by those whom will actually *implement* the plan
- Plans can be viewed as “contracts” that result from the negotiation of various stakeholders
 - “The planning is more important than the plan”
- Requires a *very* well-organized facilitation process in order to save time

Capability-based planning

Focus is on capability,
not hazards

Capabilities for Disaster Risk
Reduction

- Hazard avoidance
- **Vulnerability reduction**
 - Exposure reduction
 - Susceptibility reduction
 - Resilience building



The "SOARS" Model for Objective-based Planning

Capability

Strategic Objective

Operational Objective

Activities for each objective

Responsibility assigned each activity

Specific timeline (or procedure)



S-O-A-R-S Planning Matrix

Strategic objective	Operational objectives	Activities	Responsible parties	Specifics		

What is Disaster Risk Reduction?

- Risk Management
 - Prevention
 - Mitigation
 - Preparedness
 - Response
 - Recovery



- Risk Reduction
 - Prevention
 - Mitigation
 - Preparedness

Risk Reduction
lessens
the *likelihood*
of disaster

How Do We Estimate Disaster Risk?

$$D = H \times V$$

D = Risk of disaster

H = Hazard

V = Vulnerability of population



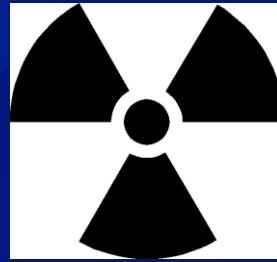
What is a hazard?

- Definition of a **hazard**
 - “A dangerous phenomenon, substance, human activity or condition that may cause *loss of life, injury or other health impacts*, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage”



Examples of hazards

Floods



Radiation

Earthquakes



Typhoons



Outbreaks



Tornadoes

What is vulnerability?

“The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effect of a hazard” **UNISDR 2009**

Or simply put...

Likely to incur physical or emotional illness or injury



Public health vulnerability

- Certain populations are more vulnerable to disaster-related morbidity and mortality



$$\text{Vulnerability} = (E \times S) / R$$

- Factors affecting vulnerability:
 - Exposure
 - Susceptibility
 - Resilience



What is exposure?

- Exposure
 - “People, property, systems, or other elements present in hazard zones that are thereby subject to potential losses”
- Example of exposure
 - Living in an area that floods



What is susceptibility?

- Susceptibility
 - “The state of being at risk, if exposed to a hazard”
- Example of susceptibility
 - Not being able to swim



What is resilience?

- 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”
- *Example of resilience*
 - *Living among healthy people who can help you*

CASE STUDY: Heat Wave Disasters

❑ Europe 2003

- Hottest summer on record
- Death toll exceeded 70,000
- Most deaths were among isolated elderly
- Occurred when many physicians were on vacation

❑ Chicago 1995

- 2nd hottest on record
- 750 deaths
- Most deaths were among isolated elderly
- Power failures
- Inadequate ambulance service and hospital facilities
- Cooling centers not fully utilized

Jean-Marie R, Cheung S, Le Roy S, Van Oyen H, et al. (2008). "Death toll exceeded 70,000 in Europe during the summer of 2003". *Comptes Rendus Biologies* **331** (2): 171–178.

Klinenberg, Eric (2002). *Heat Wave: A Social Autopsy of Disaster in Chicago*. Chicago, IL: Chicago University Press.

CAPABILITY : Exposure Reduction

Strategic Objective	Operational Objective	Activity	Responsible Party	Specific timeline
Hazard exposures are reduced	People are warned	Develop public service announcements	Public health	
		Identify people at risk	Charities, churches, outreach groups	
	The need for evacuation is lessened	Perform needs assessments	Public health	
		Provide home cooling for high risk groups	Charities, churches, outreach groups	
	People are evacuated	Identify cooling shelters	Public health Local EMA	

CAPABILITY: Reducing Susceptibility

Strategic Objective	Operational Objective	Activity	Responsible Party	Specific timeline
People are made less susceptible to illness	People are healthier	Promote healthy lifestyles: activity, diet, etc.	Public health, MRC	
		Promote healthy homes	Public health	
		Improve access to healthcare	Public health, medical care	
		Eliminate health disparities	Public health	
	At risk groups are not isolated	Improve social networks for elderly	Public health, charities, churches	

CAPABILITY: Building Resilience

Strategic Objective	Operational Objective	Activity	Responsible Party	Specific timeline
Lives are saved during the emergency	People are able to recognize heat illness	Provide public education	Public health	
	Emergency medical services are fully operational	Ensure 911 is adequately staffed	Public safety	
		Ensure EMS has adequate resources	EMS	
	Hospitals and clinics are fully operational	Ensure hospitals have adequate resources	Medical system	



Centers for Disease Control and Prevention Atlanta, Georgia


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Continuing Education Credit/Contact Hours for COCA Conference Calls

Continuing Education guidelines require that the attendance of all who participate in COCA Conference Calls be properly documented. All Continuing Education credits/contact hours (CME, CNE, CEU, CECH, and ACPE) for COCA Conference Calls are issued online through the CDC Training & Continuing Education Online system

<http://www2a.cdc.gov/TCEOnline/>

Those who participate in the COCA Conference Calls and who wish to receive CE credit/contact hours and will complete the online evaluation by **October 17, 2012** will use the course code **EC1648**. Those who wish to receive CE credits/contact hours and will complete the online evaluation between **October 18, 2012** and **September 17, 2013** will use course code **WD1648**. CE certificates can be printed immediately upon completion of your online evaluation. A cumulative transcript of all CDC/ATSDR CE's obtained through the CDC Training & Continuing Education Online System will be maintained for each user.

Thank you for joining!
Please email us questions at
coca@cdc.gov

The screenshot shows the CDC website interface. At the top, the CDC logo and name are visible, along with the tagline "CDC 24/7: Saving lives, protecting people, reducing health costs". A search bar is located in the top right. Below the navigation menu, the page title "Emergency Preparedness and Response" is displayed. The main content area features a section titled "COCA and MRC Outreach Call Series" with a detailed description of the call series. Below this, there is a section for "Principles of Planning for Disaster Risk Reduction" with a list of details including date, time, and contact information. A sidebar on the left contains a navigation menu with options like "Specific Hazards", "Preparedness for All Hazards", and "What CDC Is Doing". A right sidebar includes utility links such as "Email page", "Print page", and "Subscribe to RSS", along with contact information for the CDC.

COCA and MRC Outreach Call Series

COCA has partnered with NCEH/ATSDR Office for Environmental Health Emergencies and the Medical Reserve Corps (MRC) on a conference call series related to Disaster Risk Reduction. The call series will provide MRC volunteers and clinicians with an accurate understanding of the public health and medical consequences of natural and man-made disasters (including terrorism); and the principles taught in the Disaster Risk Reduction curriculum will assist them in making decisions that support community public health resiliency. This is the second call in the series. [Learn more about MRC](#)

Principles of Planning for Disaster Risk Reduction

= Free Continuing Education Credits

Date: Tuesday, September 18, 2012

Time: 2:00 - 3:00 pm (Eastern Time)

Join By Phone:

Dial-in Number: 1-800-619-2865

Passcode: COCA

Join By Webinar:

Conference Number: PWS191467

<https://www.mymeetings.com/nc/join.php?i=PWS191467&p=COCA&t=c>

Presenter(s):

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Senior Science Advisor
Office for Environmental Health Emergencies
National Center for Environmental Health
Centers for Disease and Control and Prevention

Overview:

Public health emergencies often evolve rapidly and become too complex for effective improvisation; therefore, an effective response requires planning in advance of the event. Effective planning strategies should include Disaster Risk Reduction tactics to mitigate the health impact of disasters. CDC is working in partnership with the Medical Reserve Corps to provide public health, medical and other volunteers with an accurate understanding of the principles of Disaster Risk Reduction. These principles will assist volunteers to make decisions that support building community public health resiliency. Please join us for this COCA call where a subject matter expert will discuss the principles for effective, efficient and orderly processes for disaster planning.

<http://emergency.cdc.gov/coca>

Join Us on Facebook

CDC Facebook page for Health Partners! “Like” our page today to receive COCA updates, guidance, and situational awareness about preparing for and responding to public health emergencies.



The screenshot shows the Facebook profile for CDC Health Partners Outreach. The page header includes the Facebook logo, a 'Sign Up' button, and a navigation bar with 'Email', 'Password', and 'Log In' fields. Below the header, the page title 'CDC Health Partners Outreach' is displayed with a 'Like' button and the location 'Government Organization · Atlanta, Georgia'. The main content area features a 'Wall' section with a post from CDC Health Partners Outreach. The post text reads: 'CDC is partnering with NPHIC to host a webinar July 21 (3:00pm ET) on Crisis and Emergency Risk Communication – Radiation. A subject matter expert from the Oak Ridge Institute for Science and Education (ORISE) will address key elements of communicating during a radiation disaster, share CDC research on messaging, and provide lessons learned from Japan's recent nuclear emergency. Register for this FREE webinar today!'. The post includes a 'Crisis and Emergency Risk Communication - Radiation Webinar' event link and a 'Monday at 7:08am · Like · Comment' timestamp. Below the post, it shows 'Jessica Guidry, Marta Lugo, Marcy Dalziel Belvin and 3 others like this.' The left sidebar contains navigation links for 'Wall', 'Info', 'Photos', 'About', '2 check-ins', and '1,187 like this'. The 'About' section states: 'Health Partners Outreach Team is with the CDC Emergency Risk Communication...'. The 'Likes' section shows 'CDC Emergency Preparedness and Response' and 'CDC' as users who liked the page.

<http://www.facebook.com/CDCHealthPartnersOutreach>