



*KNOWLEDGE ENHANCEMENT EVENTS:
BEHAVIORAL HEALTH WORKING GROUP
AFTER ACTION REPORT*

FEMA PARFET BUILDING

LAKEWOOD, CO

AUGUST 27, 2012

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14. ABSTRACT The effects of a disaster are not always physical. Houses and roads can be rebuilt and physical wounds will heal, but the emotional scars from a disaster can often be harder to fix. Disaster survivors must pick up the pieces often while struggling with incredible emotional hardships. The objective of the Behavioral Health working group was to identify the key recovery issues to be addressed from a behavioral health perspective after a large-scale incident. The focus was to provide general strategies of how to consolidate, organize, and facilitate the following: (1) Connecting individuals to behavioral health and mental health resiliency services offered by local organizations immediately after the disaster; (2) Connecting individuals to behavioral health resources for up to three years post incident; (3) Advancing Mental Health resiliency resources to help promote resiliency for responders and relief workers; (4) Monitoring of the psycho-social impacts over time; (5) Funding for behavioral health services during all phases of recovery (regardless of religious affiliation or preference [or lack thereof]). (6) Understanding policy relating to how the funding is routed to local mental health clinics during a wide urban area event.					
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1.0 Executive Summary

This After Action Report (AAR) was developed following the Behavioral Health Knowledge Enhancement Event which occurred on August 27, 2012, at the FEMA Parfet Building, in Lakewood, Colorado. This AAR incorporates information from recorder notes, including questions, comments, recommendations, and includes information from the feedback forms. The AAR was distributed to the planning team and members from the WARRP Leadership Team for review and comment prior to final release.

The effects of a disaster are larger than the physical. Houses and roads can be rebuilt and physical wounds will heal, but the emotional scars from a disaster can often be harder to fix. Disaster survivors must pick up the pieces often while struggling with incredible emotional hardships. Primary goals for behavioral health experts after a disaster are to normalize feelings of those affected, reassure survivors that the strange and upsetting feelings they experience after a disaster are normal and help victims find effective ways of coping with their ongoing stress.

This workshop identified a communication challenge for Behavioral Health Professionals and Emergency Managers and a deficiency in the Incident Command Structure to notify Behavioral Health professionals at the onset of a disaster operation. Additional challenges surround organizing and vetting the various volunteer groups responding.

Marlene Husson, American Red Cross, Mental Health Manager, spoke of her extensive disaster response experience. She responded as a mental health professional to the Oklahoma Bombing in 1995 and most recently to the Colorado Wildfires, June and July 2012. Her view is that the overall goal of disaster mental health response is to reduce the initial adverse reactions in the hope of eliminating more costly future mental health services, involving addiction, disrupted employment or divorce.

Jonathan Gunderson, Behavioral Health Specialist for the Colorado Department of Public Health, spoke next, explaining Behavioral Health Disaster Phases (shown below), Sequence of Crisis Counseling, and the process followed for the recent FEMA declaration monies.

Garry Briese, Denver Area WARRP Local Program Integrator asked what the Return on Investment is estimated to be on the FEMA monies of 1.2 million declared for Behavioral Health services to Colorado Wildfire residents? The group discussed ideas to develop a community mental health baseline from available public information such as increased driving under the influence arrests, school absences, and hospital emergency visits involving mental health problems which could then be used to evaluate the benefit the community receives from early mental health intervention in disaster.

Additional data regarding workshop outcomes are found in section [5.0 Key Discussion Areas & Outcomes](#)

Note: The content of this After Action Report represents the best efforts of the participants based on the information available at the time of publication, but is not intended to convey formal guidance or policy of the federal government or other participating agencies. The views and opinions expressed herein do not necessarily state or reflect those of their respective organizations or the US Government.

2.0 Background

The Departments of Defense and Homeland Security, in close coordination with the Denver Urban Area Security Initiative (UASI), have partnered to establish the Wide Area Recovery and Resiliency Program (WARRP). The purpose of this collaborative program is to study, develop and demonstrate frameworks, operational capabilities and interagency coordination, enabling a timely return to functionality and re-establishment of socio-economic order and basic services through execution of recovery and resiliency activities, as applicable. This program will explore a coordinated systems approach to the recovery and resiliency of wide urban areas, including meeting public health requirements and restoring all types of critical infrastructure, key resources (both civilian and military) and high traffic areas (transit/transportation facilities) following a chemical, biological or radiological (CBR) incident.

3.0 Goal & Objectives

Goal

The focus of the Knowledge Enhancement Working Group was to connect local behavioral health professionals and emergency management professionals to discuss strategies for coordinating behavioral health services after a wide urban area event, during all phases of recovery. Primary goals of behavioral health providers after a disaster are to normalize feelings of those affected, reassure survivors, and help victims find effective ways of coping with their ongoing stress.

Objectives

- Identify the key behavioral health recovery issues after a wide area urban event.
- Identify the process to connect individuals of the impacted community to behavioral health and mental health resiliency services available after a wide urban area event.
- Advance the understanding of resiliency for responders and relief workers.
- Monitoring of the psycho-social impacts on the affected community over time.
- Funding policy for behavioral health services during all phases of recovery.

4.0 Scope & Format

Scope

Perhaps the most significant enhancement to the long-term recovery of a community after a catastrophic disaster, either natural or man-made is the resiliency of the community members. Behavioral Health Professionals regularly respond to community disasters, of all size and scope. Emergency Managers generally recognize the value behavioral health professionals provide to recovery but don't always understand how or when to activate them. This workshop sought to bring together community behavioral health professionals and emergency managers to strategize how the groups can work together effectively during an urban area recovery.

Format

The workshop was held on August 27, 2012, for additional information on format, see [Annex A – Agenda](#). Participants from various organizations attended and are listed in [Annex B – Participants](#). Feedback was captured using a standard feedback form and a summary of workshop findings are found in [Annex C – Participant Feedback](#). For information on the planning team, or to get more information on this after action report, see [Annex D – Key Points of Contact](#).

This event used the standard WARRP scenarios to base workshop content. For a summary of these scenarios, see [Annex E – Scenarios](#)

5.0 Key Discussion Areas & Outcomes

Table 1 - Key Outcomes from Group Sessions

Category	Discussion Items	Recommendations
Terminology	- There isn't an agreed upon name for what we refer to as Behavioral Health Disaster Mental Health. - There is a difference between Behavioral Health and Mental health... it is the implication.	- Behavioral Health is what it is referred to in FEMA Department of Health & Human Services. - It is a more excepted term. - It covers both substance abuse and mental health.
ICS Structure	- Is there an ICS structure for Behavioral Health - Behavioral Health has many components and arms due to the multiple agencies that are involved as well as groups like non-profits, VA's, etc. - Emergency management generally Behavioral Health process is too complicated and involved, they prefer to stay away from it.	- Home Rule States allows each community to structure according to their needs, without state recommendations. - Invitation from Emergency Management to the table. - Identify the Behavioral Health Lead - Create a separate ESF function for behavioral health - Plug into the ICS structure (create the structure) to add - Liaison with emergency managers
Importance of Behavioral Health	- Not evident in NIMS, therefore it doesn't exist to Emergency Managers. - Not represented into the WARRP Framework. - Another problem is FEMA recovery money refers to it as Crisis Counseling.	Psych first aid for FEMA responders or any responders from local and state levels as well.
FEMA step to Crisis Recovery	Crisis counseling is not therapy. It is education, getting people through recovery stage	
CISM	- CISM is not typically used during disasters in Colorado - It is the only thing regarding behavioral health that is mentioned in the FEMA ICS field guide	
The disillusionment phase	- What resources are available to the community? - After the Theater shootings the mayor and the chief of police in Aurora both mentioned that people should seek help.	- Have resources set up ahead of time. - Have PIO's messaging the need to seek help. - Have list serves and PIO's pass along information to seek help. - Removing stigma would be extremely helpful.

Tracking

- Current mental health indicator for a community.
- Set of people who get stuck, productivity goes down, children are neglected or abused, increased substance abuse, dui's, prescription drug abuse, people in recovery stop treatment
- Figure out a community baseline.
- CDPHE starting to do some research on it but don't have resources.
- Mental Health professionals don't report out any data so it might be hard to measure.
- Opportunity at Aurora school system to start looking at indicators such as school absences.
- Can you pick an X amount of indicator can you track over a period of multiple years.
- Start somewhere. Ask the Police chief if you can gather DUI's after an incident.
- Use data from other agencies.
- Possibly Track liquor sales

6.0 Conclusion

The Behavioral Health, Knowledge Enhancement Working Group identified a communication challenge for Behavioral Health Professionals and Emergency Managers and a deficiency in the Incident Command Structure to notify Behavioral Health professionals at the onset of a disaster operation. Behavioral Health Professionals would like “to be invited to the table” by Emergency Managers but currently they are not called at the onset of an emergency. Discussions centered on including Behavioral Health in the ICS checklist so they are not an afterthought to the process. Additional challenges surround organizing and vetting the various volunteer groups responding. CDPHE has prepared a document that outlines the organization and vetting of volunteers but the knowledge of it and its use are sporadic. Discussions also revealed the need to create a community mental health baseline from data already being collected by other agencies. Monies to prepare a baseline study are not currently available to CDPHE.

Annex A – Agenda

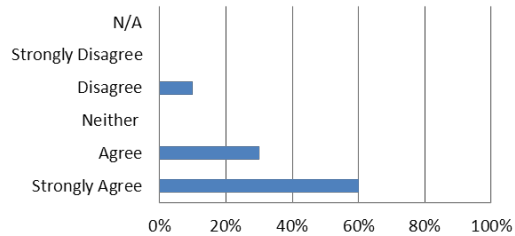
800 - 830	Registration
0830 – 0850	Welcome: Introductions, Review of Workshop Objectives, Agenda
0850 - 0900	Framework Overview / Connection to Workshop
0900 – 0915	Behavioral Health Overview
0915 – 1015	Guest Speaker - Marlene Husson Community Recovery & Resiliency
1015 – 1030	Break
1030 – 1050	Sequence of Crisis Counseling Federal Declaration Jonathan Gunderson (CDPHE)
1050 – 1145	Introduction to Chemical Scenario & Breakout Session 1 – Short Term Response & Recovery
1145 – 1200	Report out from Breakout Session
1200 – 1245	Lunch
1245 – 1330	Facilitated Discussion Regarding Behavioral Health & Connection to recent tragedies in Colorado
1330 – 1415	Breakout Session 2 – Intermediate Term Recovery
1415 – 1430	Break
1430 – 1445	Report Out from Breakout Session
1445 – 1530	Recap & Next Steps – Day Ends

Annex B –Participants

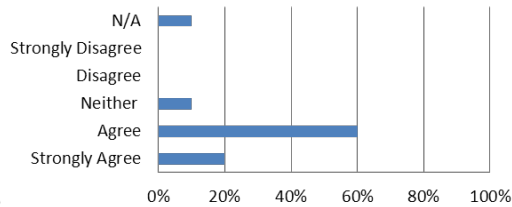
Last Name	First Name	Organization
Briese	Garry	Cubic Applications Inc.
DiPaolo	Elizabeth	Cubic Applications, Inc.
Drennen	Curt	CDPHE - OEPR
Garst	Lynn	Mental Health Center of Denver
Gunderson	Jonathan	CDPHE-Emergency Preparedness & Response
Husson	Marlene	American Red Cross
Jackson	Heather	Aurora Mental Health Center
McNair	Bryan	Arapahoe House
Pearce	Martha	Colorado Psychological Assn; CoCERN council
Slade	Kelly	North Range Behavioral Health
Swanson	Todd	State of Colorado
Voth Siebert	Aimee	Colorado Department of Public Health & Environment
Wolfe	Teri	WARRP
Zamore	Ysaye	Mental Health Partners

Annex C – Participant Feedback

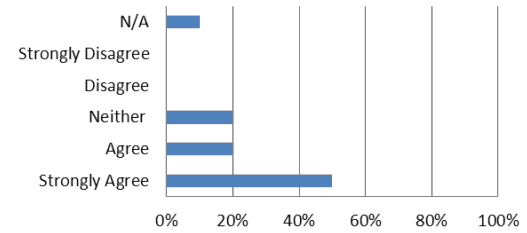
Working Group Was Valuable Use of Time



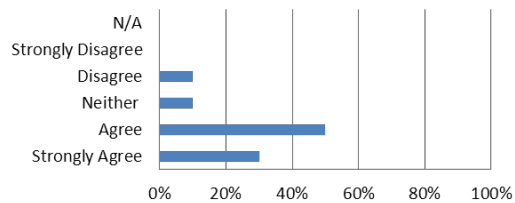
Working Group Expanded Professional Network



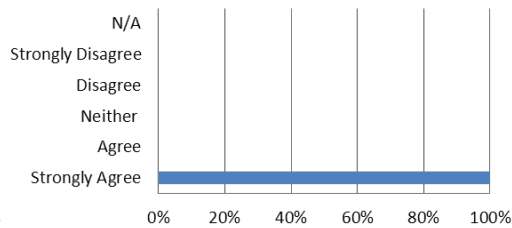
Facilities Contributed to Success



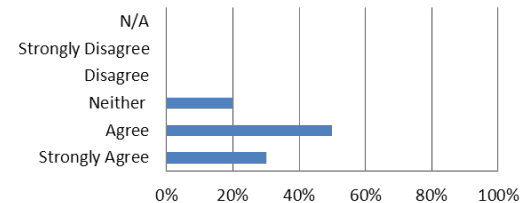
Working Group Increased Awareness of CBR Incident



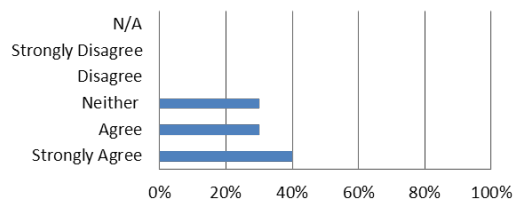
Professional Staff



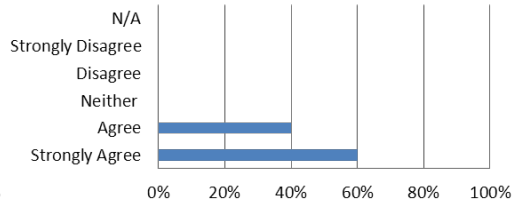
Recommend WARRP Working Groups to Colleagues



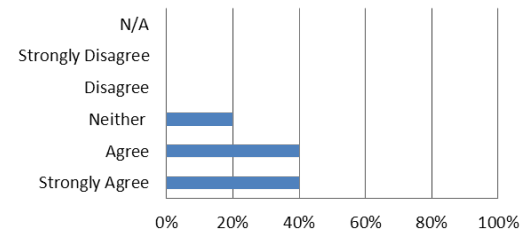
Learned Something New From Working Group



Working Group Identified & Addressed Relevant Issues



Working Group Met Expectations



Annex D – Key Points of Contact

Planning Team

Eilizabeth DiPaolo, Cubic Applications, Inc.
Jonathan Gunderson, Behavioral Health Specialist
Marlene Husson, American Red Cross, Mental Health Manager
Teri Wolfe, Cubic Applications, Inc.

For questions about this report, contact:

Cubic Applications, Inc.

Garry Briese, WARRP Local Integrator
Phone: (571) 221-3319 (mobile)
E-mail: gbriese@brieseandassociates.com

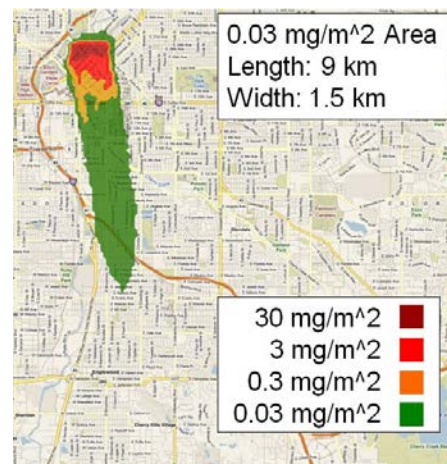
Stacey Tyler, WARRP Integrator
Phone: (858) 810 -5783 (office)
E-mail: stacey.tyler@cubic.com

Annex E – WARRP Scenarios

CHEMICAL SCENARIO

National Planning Scenario #5: Chemical Attack – Blister Agent

- **Blister agent attack on a packed Coors Field (Downtown Denver).** 95 fatalities; over 1,000 hospitalized (max. capacity of field is 55,445)
- **Evacuations/Displaced Persons:** Tens of thousands evacuated and thousands seeking shelter (decontamination required)
- **Significant contamination in affected areas, including the stadium and surrounding area.** Agent has generated a downwind vapor hazard. Approx. contamination = over 5 miles
 - o Several high value properties contaminated including Coors Field, Pepsi Center, and Invesco Field Mile High
 - o Basic services affected
 - o Local businesses affected



Agent Background

Agent YELLOW, which is a mixture of the chemical warfare agents Sulfur Mustard and Lewisite, is a liquid with a garlic-like odor. Sulfur mustard, also known as **mustard gas**, has the ability to form large blisters on exposed skin. Lewisite is a blister agent that contains arsenic, a poisonous element. Skin irritation from sulfur mustard gradually turns into large blisters filled with yellow fluid wherever the agent contacted the skin. Temporary blindness can occur if a victim's eyes are exposed. At very high concentrations, if inhaled, mustard agent causes bleeding and blistering within the respiratory system, damaging mucous membranes and causing pulmonary edema. Severe mustard gas burns (i.e., where more than 50% of the victim's skin has been burned) are often fatal, with death occurring after some days or even weeks have passed. The blister effects of Lewisite occur sooner, and extensive eye exposure can cause permanent blindness.



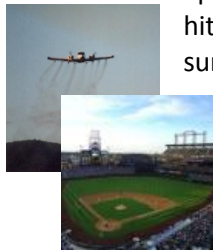
Scenario

Terrorist agents acquire 175 gallons of Agent YELLOW, equip a small airplane with sprayers and fly the plane at low altitude over **Denver's Coors Field** during a Rockies baseball game. At his closest approach to the stadium, the pilot veers directly towards the target. Ignoring frantic air traffic control calls and an

approaching police helicopter, he cuts his speed and drops over the stadium, simultaneously hitting the spray release button. A coarse spray of Agent YELLOW is released. In the stadium, surprise at the appearance of the aircraft turns to panic when the spray is observed coming

out of the rear of the plane. **In total, 53,000 people have been either hit by, or breathe vapors of, the Agent YELLOW spray.** Thousands are injured and many are killed in the rush to exit the stadium. People hit in the eyes experience immediate pain, and the first ones out of the stadium are trying to get away as soon and as far as possible. Numerous auto accidents occur in the parking lot and access roads. Some people track

contamination into nearby residences, onto public transportation and into hospitals.



BIOLOGICAL SCENARIO

National Planning Scenario #2: Biological Attack – Aerosol Anthrax

- **Two covert anthrax aerosol attacks by an organized worldwide terrorist group.** Tens of thousands of people exposed and thousands of deaths.
- **Evacuations/Displaced Persons:** Tens of thousands evacuated, thousands seek shelter in immediate area (decontamination required)
- **Significant contamination in affected areas, including critical infrastructure, commercial, military & private property.**

Approx. contamination = 2 areas of 10 sq. miles each

- | | |
|---|---|
| o Hundreds of buildings contaminated | o Local government operations relocated |
| o Basic services affected | o Local businesses affected |
| o Local military installations affected | |



Agent Background



Anthrax is a bacterial disease caused by *Bacillus anthracis*. There are three types of this disease: cutaneous anthrax, gastrointestinal anthrax, and inhalation anthrax. Anthrax spores delivered by aerosol spray result in inhalation anthrax, which develops when the bacterial organism is inhaled into the lungs. A progressive infection follows. In most people, a lethal infection is expected to result from inhalation of about 8,000 spores however, a small number of people (particularly the elderly, very young and immunocompromised) may become ill from an exposure as small as 2-4 spores.

Respiratory infection in humans initially presents with cold or flu-like symptoms for several days, followed by severe (and often fatal) respiratory collapse. Historical mortality was 92%, but when treated early (as seen in the 2001 anthrax attacks) observed mortality was 45%. Distinguishing pulmonary anthrax from more common causes of respiratory illness is essential to avoiding delays in diagnosis and thereby improving outcomes. Illness progressing to the fulminant phase has a 97% mortality regardless of treatment.

Scenario

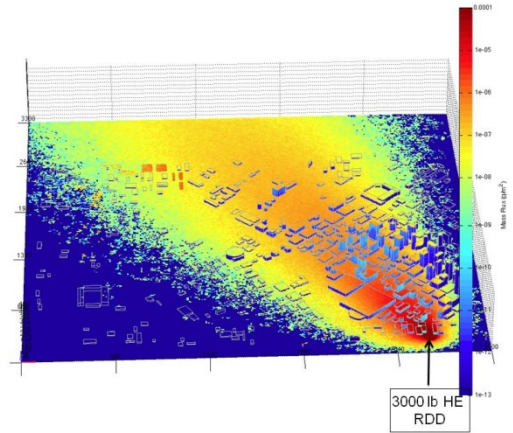
On an autumn Monday morning, a specially fitted truck drives north on I-25. When the truck reaches the Auraria section, the driver's companion turns on a concealed improvised spraying device with a conventional nozzle that rapidly aerosolizes approximately 100 liters of wet-fill *Bacillus anthracis* (anthrax) slurry. The release is sufficient to result in the potential exposure of tens of thousands of persons. Approximately 50 minutes later, a second truck drives along E. Alameda Pkwy. in Aurora, CO releasing a second cloud of anthrax. The wind blows the cloud over Buckley Air Force Base (AFB) contaminating the airstrip and an area extending nearly to the Denver airport.

Two days later, Denver area BioWatch samplers detect the presence of anthrax and it is determined that a bioterrorism event has occurred. The appropriate notifications are made, and patients begin to report to area hospitals.

RADIOLOGICAL SCENARIO

National Planning Scenario #11: Radiological Attack – Radiological Dispersal Devices

- **Two Radiological Dispersal Device (RDD) attacks at the U.S. Mint (downtown) and the Anschutz Medical Campus (Aurora).** Tens of thousands of people exposed and hundreds of deaths.
- **Evacuations/Displaced Persons** 10,000 evacuated to shelters in safe areas (decontamination required prior to entering shelters) 25,000 in each city are given shelter-in-place instructions. Hundreds of thousands self-evacuate from major urban areas in anticipation of future attacks
- **Most radioactive fallout is within tens of miles**, some may be carried up to hundreds of miles.
 - Hundreds of buildings contaminated
 - Basic services affected
 - Local businesses affected
 - Government operations relocated
 - Mass Transit (East-West rail line) affected
 - Local military installations affected



Radioisotope Background

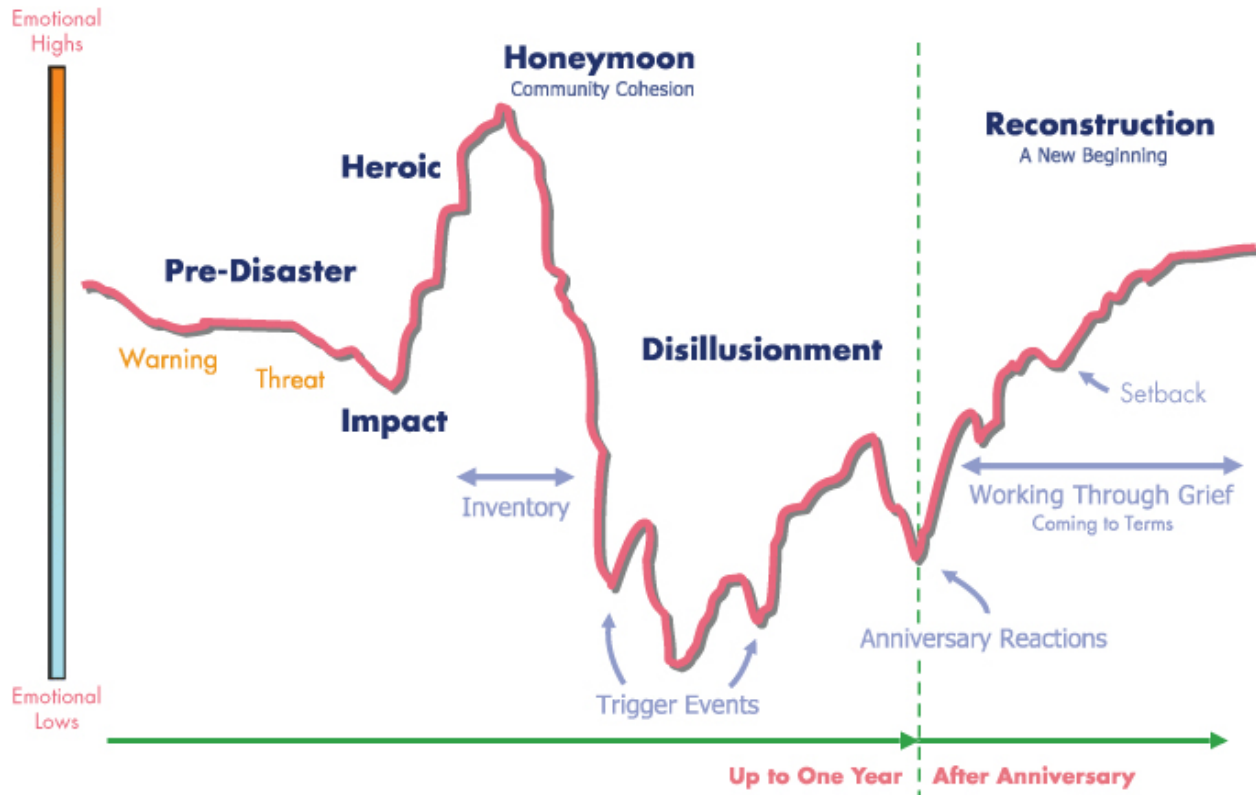
Cesium-137 (^{137}Cs) is a radioactive isotope of cesium. **The half-life of cesium-137 is 30.17 years.** Because of the chemical nature of cesium, it moves easily through the environment. This makes the cleanup of cesium-137 difficult. People may ingest cesium-137 with food and water, or may inhale it as dust. If cesium-137 enters the body, it is distributed fairly uniformly throughout the body's soft tissues, resulting in exposure of those tissues. Exposure to cesium-137 may also be external (that is, exposure to its gamma radiation from outside the body). If exposures to cesium-137 are very high, serious burns, and even death, can result. People may become internally contaminated (inside their bodies) with radioactive materials by accidentally ingesting (eating or drinking) or inhaling (breathing) them, or through direct contact (open wounds). The sooner these materials are removed from the body, the fewer and less severe the health effects of the contamination will be.

Scenario

Terrorist obtain approximately **2,300 curies of ^{137}Cs (CsCl)**, and 1.5 tones of Ammonium nitrate/Fuel oil (ANFO). The explosive and the shielded CsCl sources are packaged into bombs and loaded onto a truck. The total explosive yield in each device is approximately 3,000 pounds. At 11:15 a.m. during the school year, terrorists detonate the **3,000-pound truck bomb** containing the 2,300 curies of ^{137}Cs outside the U.S. Mint in the downtown business district of Denver. The explosion collapses the front of one building and causes severe damage to three others. Windows are blown out of five other buildings. Amid the destruction, ^{137}Cs contamination covers the scene and the contaminated detonation aerosol is lifted more than 100 feet into the air and spread across a wide area.

In Aurora, a second explosion is timed to go off at approximately 12:30 p.m. on the same day outside The Children's Hospital's Emergency Department, the only Level I Pediatric Trauma Center in Colorado, located in the middle of sprawling Anschutz Medical Campus. The time lag is intended to maximize press coverage and spread fear and uncertainty. Local first-response capacity, however, is depleted in cities two and three because many responder assets have been dispatched to assist nearby Denver during the response.

Annex F – Behavioral Health Phases of Disaster



Annex G – Acronyms

After Action Report (AAR)
Chemical, Biological, Radiological (CBR)
Centers for Disease Control (CDC)
Colorado Division of Emergency Management (CDEM)
Colorado Department of Public Health (CDPHE)
Colorado Emergency Preparedness Partnership (CEPP)
Critical Incident Stress Management (CISM)
Department of Homeland Security (DHS)
Department of Defense (DoD)
Department of Energy (DOE)
Defense Threat Reduction Agency (DTRA)
Emergency Management (EM)
Frequently Asked Question (FAQ)
Federal Emergency Management Agency (FEMA)
Health and Human Services (HHS)
Interagency Biological Restoration Demonstration (IBRD)
Lawrence Livermore National Laboratories (LLNL)
Multi-Agency Coordination (MAC)
National Disaster Recovery Framework (NDRF)
Office of Emergency Management (OEM)
Pacific Northwest National Laboratory (PNNL)
Recovery Support Function (RSF)
Subject Matter Expert (SME)
Sandia National Laboratory (SNL)
Science and Technology (S&T)
Urban Area Security Initiative (UASI)
Wide Area Recovery & Resiliency Program (WARRP)