



# Packing your “Digital Go-Bag”

## Essential Disaster Health Information on your Mobile Device

April 25, 2013



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# Presenters

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# Agenda

- Introduction
- What's in Your Go-Bag?
- Apps 101
- DIMRC List of Disaster Apps and Mobile Optimized Web Pages
- Highlights of Useful Apps
- Questions?



# Objectives

By the end of this session, you will:

1. Understand the value of a digital go-bag
2. Know where to locate the best disaster and public health preparedness and response apps
3. Know how to organize and use these apps



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## Mission

Collect, organize, and disseminate health-related information

- World's largest biomedical library
  - 9 million items in collection
- PubMed, MedlinePlus and many other resources
  - 900 million searches of PubMed done each year
  - Index to articles from 5,200 journals
- Research and Development
  - Biomedical informatics and communications
- New focus: Disaster information



**Disaster Information Management Research Center**  
IMPROVING ACCESS TO DISASTER HEALTH INFORMATION



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# Disaster Information Management Research Center (DIMRC)

U.S. Department of Health & Human Services | www.hhs.gov

Disaster Information Management Research Center  
IMPROVING ACCESS TO DISASTER HEALTH INFORMATION

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National Institutes of Health  
SPECIALIZED INFORMATION SERVICES | NLM

SIS Home | About Us | Site Map & Search | SIS News | Contact Us | Search This Site

Disaster Types and Topics  
Emergency Response Tools  
Disaster Health Literature  
Disaster Information Specialist  
Librarians & Disasters  
NLM Projects & Research  
Search TOXNET® Databases  
Health Organizations

**New Disaster Health Information Outreach Projects**

United States

**In the Spotlight**

- New Pages: Avian Influenza A(H7N9) Information Resources
- Resources about Coping with Disasters, Violence and Traumatic Events
- 2012 Disaster Health Information Outreach & Collaboration Projects
- Disaster Apps and Mobile Web Sites

**New Documents from the Resource Guide**

- Safe Drug Use After a Natural Disaster
- More...

**New in PubMed**

- Managing Multiple-Casualty Incidents: A Rural Medical Preparedness Training Assessment.
- More...

**News about Disasters**

**DISASTR List Archives**

**Free Webinar**  
Thursday, April 25, 2013 at 1:30 pm ET  
*Packing Your Digital Go-Bag: Essential Disaster Health Information on Your Mobile Device*  
Meeting details...

**Disaster Medicine and Public Health Literature**

**Resource Guide**  
Guide to disaster medicine and public health literature and related information.

**PubMed**  
Database of biomedical journal citations and abstracts.

**HazMat/CBRN (Chem, Bio, Rad, Nuclear)**

**WISER: Wireless Information System for Emergency Responders**  
System to assist first responders and first receivers in hazardous material incidents. WISER for iOS 3.1 now available!

**REHM: Radiation Emergency Medical Management**  
Guidance about clinical diagnosis and treatment of radiation injuries during radiological and nuclear emergencies.

**CHEMM: Chemical Hazards Emergency Medical Management**  
Guidance on planning, response and recovery related to chemical mass casualty incidents.

**Stay Connected**

- Join the Listserv
- Subscribe to RSS
- Follow us on Twitter
- Bookmark and share

**About the Center**

- Fact Sheet
- News
- Publications about the Center
- Staff Publications
- Promotional Materials
- Collaborations & Partnerships

**Find Disaster Organizations**

Limit to state: -- All -- (Optional)  
NLM | Get this widget  
Get More Widgets

**Tweets**

- NLM Disaster @NLM\_DIMRC: See resources & link to #bostonmarathon twitter chat on #medlib last night ow.ly/KelUL
- NLM Disaster @NLM\_DIMRC: MT @samhsagov: Many people who have sheltered in place can successfully cope with an emergency: bit.ly/15VzT5. #Watertown #Boston

## Mission

To develop and provide access to health information resources and technology for disaster preparedness, response, and recovery

- Connect people to quality disaster health information and foster a culture of community resiliency

<http://disasterinfo.nlm.nih.gov>

# Disaster Workforce: Licensed/Credentialed Health Professionals (ESAR – VHP, 2011)



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# WHAT'S IN YOUR GO-BAG?



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# What's Missing?



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# INFORMATION!

- Why need information?
  - Preparedness
  - Decision making
  - Situational awareness
  - Informed response
  - Recovery
- Know before you go!



“In the wake of Hurricane Sandy, a large number of people extensively downloaded and accessed emergency preparedness smartphone applications (apps). The use of these apps helped responders and survivors access critical disaster-related information despite widespread power outages throughout the disaster areas”

Source: Hurricane Sandy: Smartphone Applications Provide  
Critical Information to Sandy Responders and Survivors  
With permission from LLIS.gov



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# Information You Might Need

- Evidence-based public health information
- Maps
- Situation status
- Decision tools
- Alerts/News
- Social media/Connectivity
- Reference tools



# Why a Digital Go-Bag?

- Internet can be unreliable in emergencies
- Information portability
- Space saver; nearly unlimited capacity
- Information literally at your fingertips



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# **APPS 101: CAPABILITIES & LIMITATIONS**



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# Know Your Apps

- What's the difference?



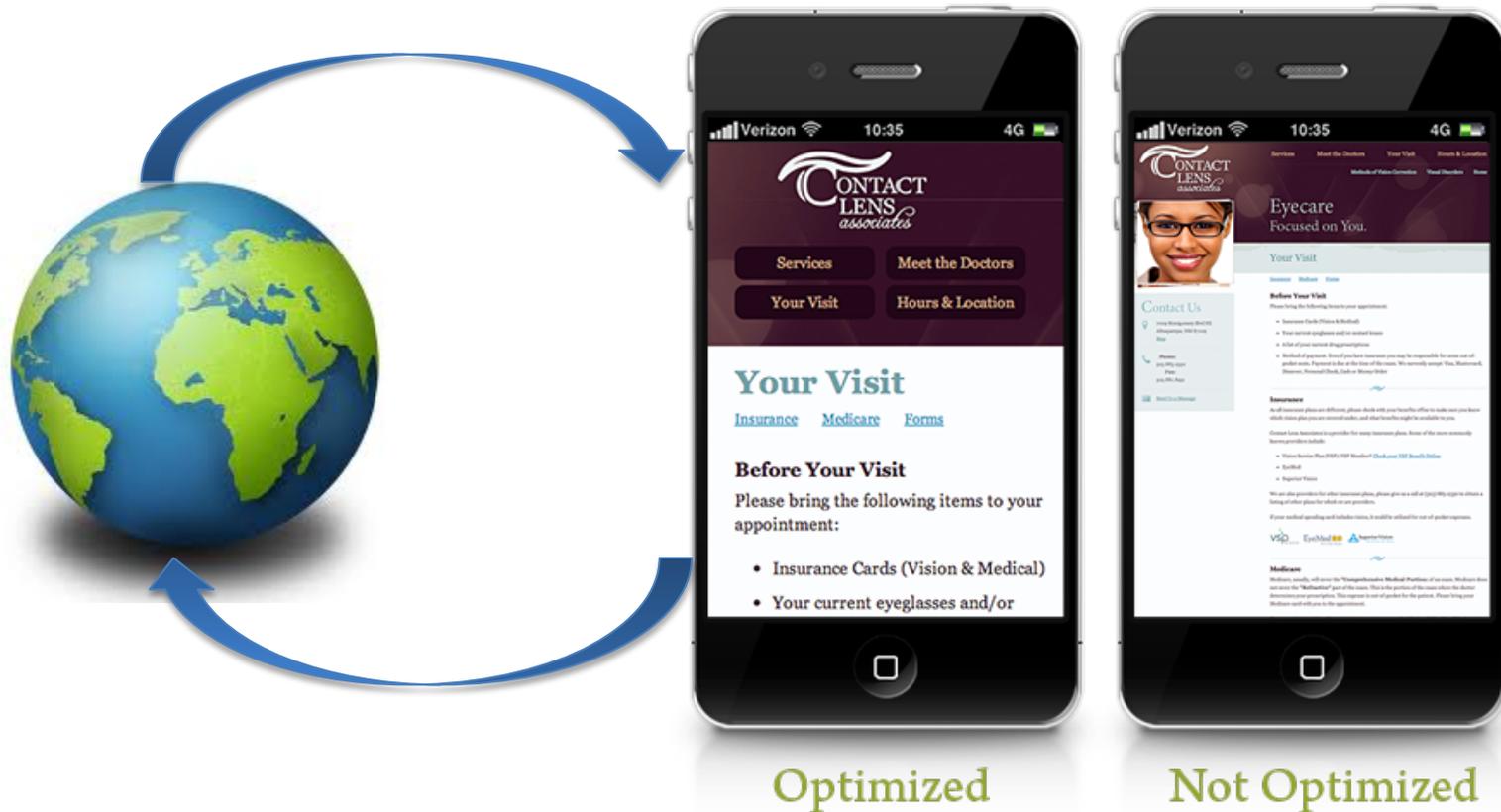
# Know Your Apps

- What's the difference?

**The need for connectivity!**



# Mobile Optimized Websites



# Apps: All are Not Created Equal

- Apps = Easy shortcut to information
- Connectivity may be needed:
  - all of the time
  - part of the time (hybrid) or
  - none of the time (stand-alone)

**Knowing your app is part of  
being prepared!**



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# **DIMRC LIST OF APPS AND MOBILE ENHANCED WEB PAGES**



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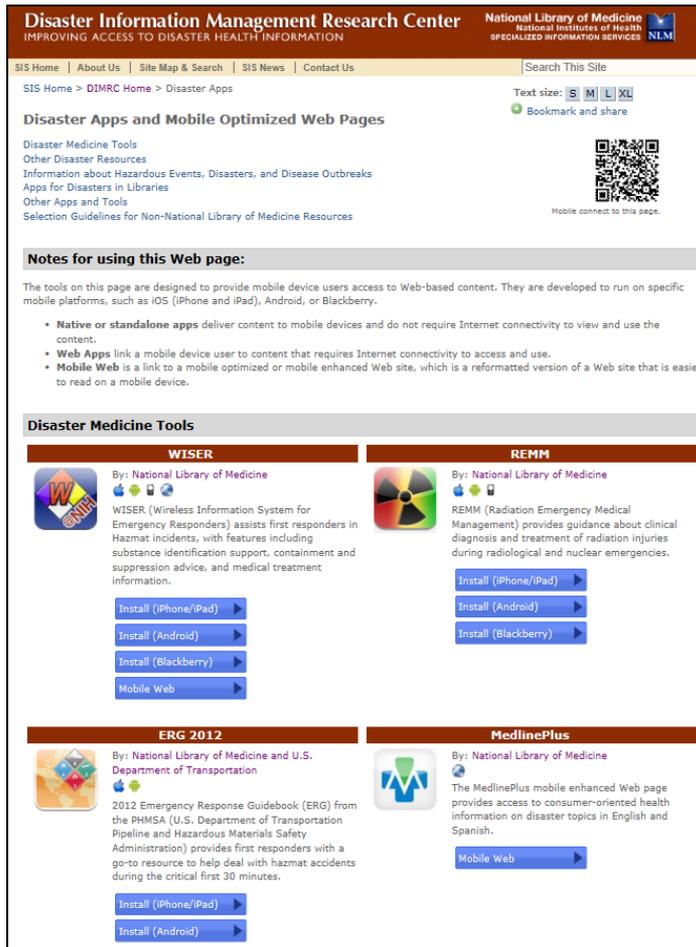
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# List of Apps

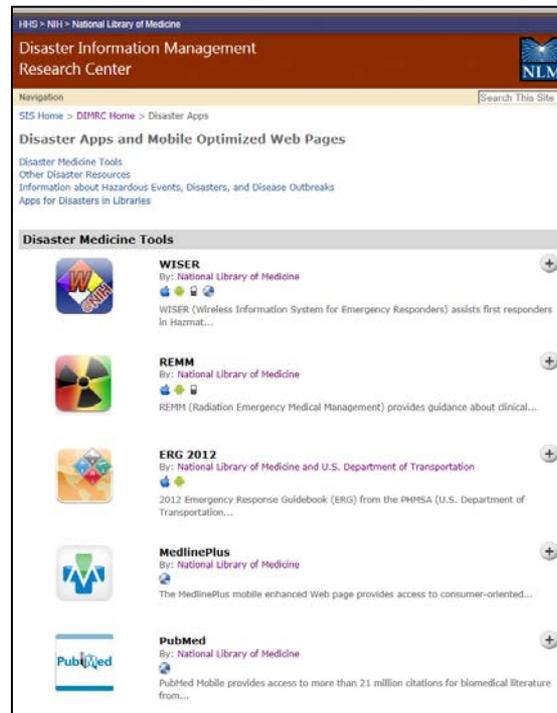
<http://disasterinfo.nlm.nih.gov/dimrc/disasterapps.html>



Page adjusts for web, tablet or smartphone



The desktop screenshot shows the top navigation bar with links for Home, About Us, Site Map & Search, SIS News, and Contact Us. Below the navigation is a search bar and a text size selector. The main content area is titled "Disaster Apps and Mobile Optimized Web Pages" and includes a QR code for mobile access. A "Notes for using this Web page:" section explains that tools are designed for mobile devices. The "Disaster Medicine Tools" section is divided into two columns: WISER (Wireless Information System for Emergency Responders) and REMM (Radiation Emergency Medical Management). Each tool has an icon, a description, and buttons for installation on iPhone/iPad, Android, and BlackBerry, as well as a Mobile Web link. Below this, the ERG 2012 (2012 Emergency Response Guidebook) and MedlinePlus are also listed with similar installation options.



The tablet screenshot shows the website content adjusted to a wider, shorter format. The navigation bar and search bar are visible at the top. The "Disaster Medicine Tools" section is displayed in a single column, with each tool (WISER, REMM, ERG 2012, MedlinePlus, and PubMed) having its icon, name, and a brief description. The installation buttons for each app are still present but are smaller and more compactly arranged.



The smartphone screenshot shows the website content adjusted to a narrow, vertical format. The navigation bar and search bar are at the top. The "Disaster Medicine Tools" section is displayed in a single column, with each tool (WISER, REMM, ERG 2012) having its icon, name, and a brief description. The installation buttons are the smallest and most compactly arranged of the three versions.



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# App/Web Page Selection Criteria

- Authoritative and credible source
- Provides useful, current content
- No point of view
- Ease of use
- Free (with some exceptions)



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# **PREPAREDNESS & RESPONSE**



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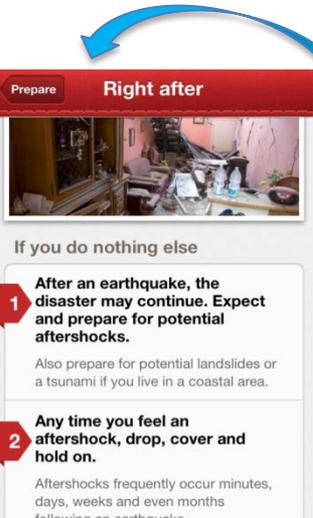
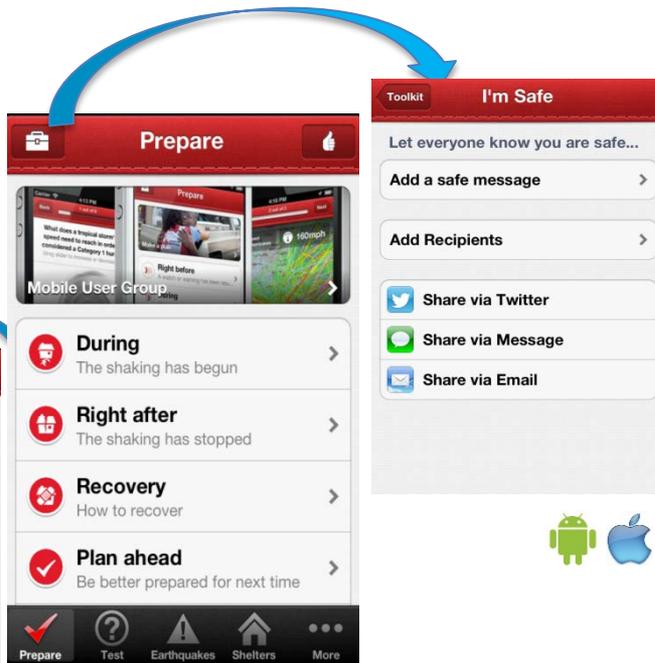
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# American Red Cross App Series



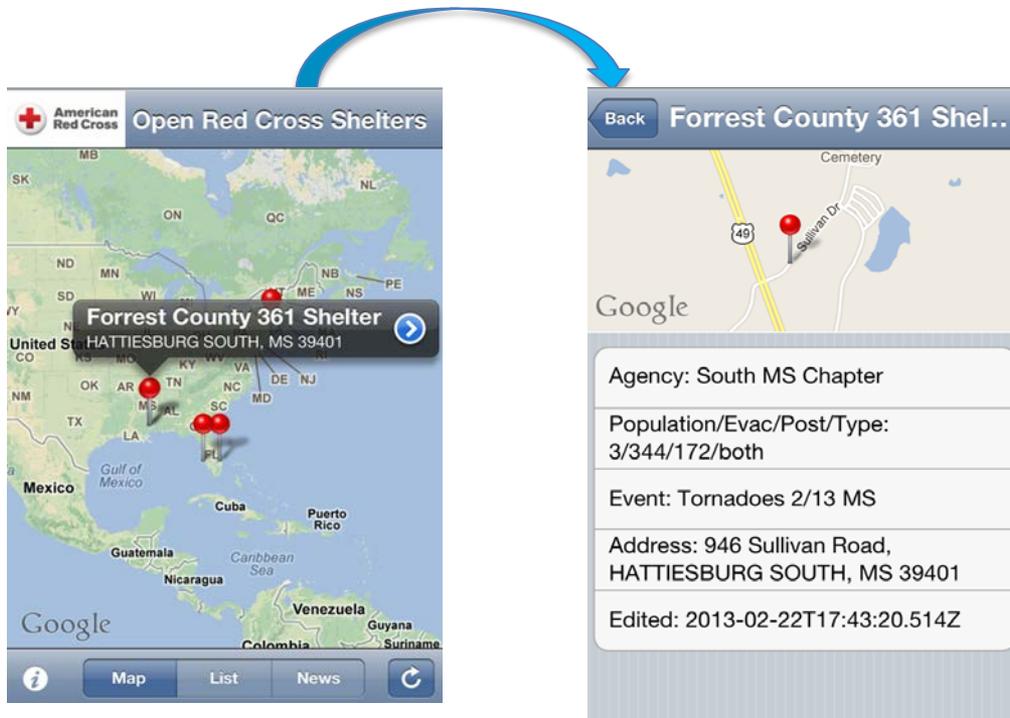
- NOAA weather or USGS alerts and maps - personalized
- Location of shelters
- Pre-loaded content on safety, preparedness and response information
- One-touch “I’m safe” message to friends/family and social media contacts
- Toolkit with flashlight, strobe light and alarm



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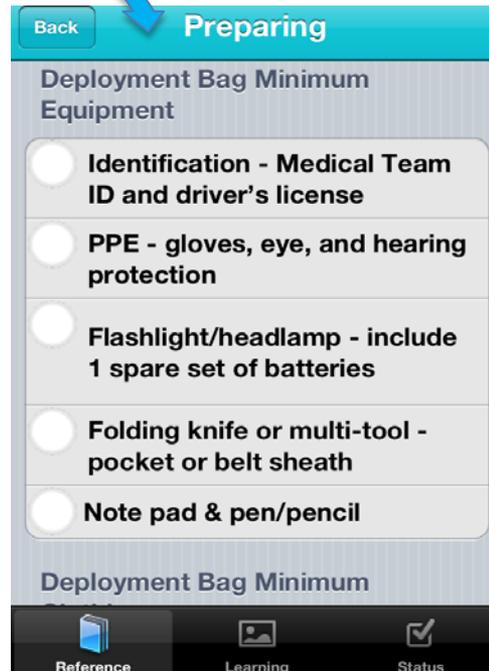
# American Red Cross Shelters



- Requires connectivity
- Map and list of open shelter locations
- Connects from other Red Cross Apps
- International disaster news



# Med Field Ops



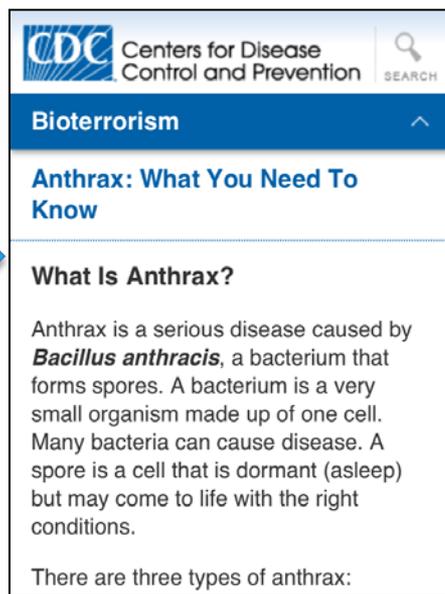
- Based on Mobile Medical Unit Field Operations Guide
- Quick reference for responders preparing for deployment
- Includes packing lists, treatment guidelines, training modules, and entire field guide in text.
- Stand-alone app



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# CDC – Emergency Preparedness & Response



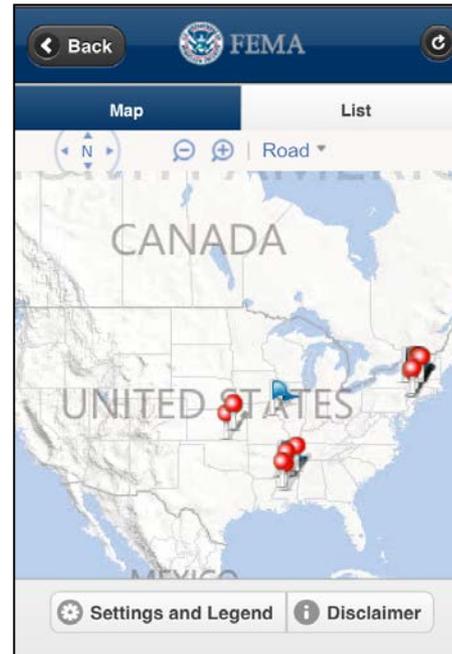
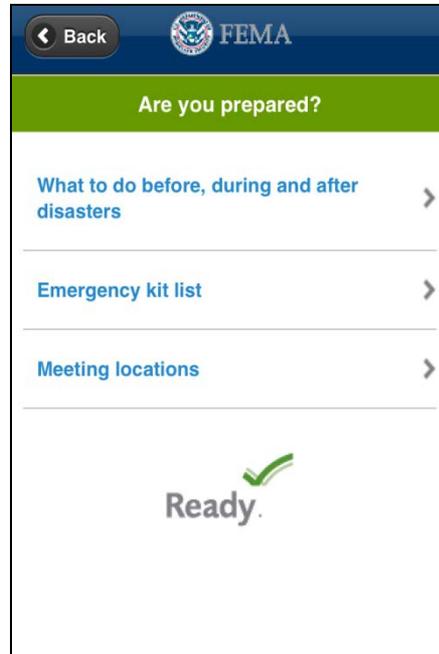
- Connectivity required
- Consumer-oriented
- CDC advice on 6 categories with link to full CDC site (not mobile optimized)
- Links to external sites



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# FEMA



- Requires connectivity for full features
- Consumer-oriented advice for preparedness
- Maps and list of shelters and disaster recovery centers
- Includes content on getting assistance after disaster
- FEMA blog posts



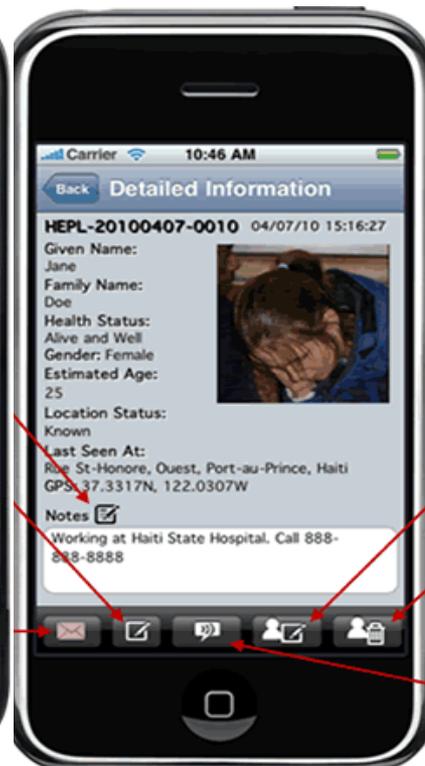
# ReUnite App for Family Reunification



Home page



Enter data



Record with picture

- Collects data on missing or found people
- Upload to web site when connectivity available



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# Lost Person Finder Web Site

<http://lpf.nlm.nih.gov>

CMAX 2010 People Locator Beta  
U.S. National Library of Medicine  
Lister Hill National Center for Biomedical Communications

Logged in: [User Name]

Event: CMAX 2010

Search For...  
Enter a name...

Found 49 out of 80 Records [Print Results](#)

Page - 1 2 | Results Per Page - 25

 <b>William Duran</b> Age Group: Unknown Gender: Male Updated: 10/15/10 @ 10:48 AM <b>Injured</b>	 <b>Janie Daniel</b> Age Group: Unknown Gender: Female Updated: 10/15/10 @ 10:47 AM <b>Injured</b>
 <b>Dolores Smith</b> Age Group: Unknown Gender: Female Updated: 10/15/10 @ 10:45 AM <b>Injured</b>	 <b>Pat Brosius</b> Age Group: Unknown Gender: Female Updated: 10/15/10 @ 10:42 AM <b>Injured</b>
 <b>Josie cmax</b> Age Group: Unknown Gender: Female Updated: 10/14/10 @ 12:39 PM <b>Injured</b>	 <b>Unknown name</b> Age Group: Adult Gender: Male Updated: 10/14/10 @ 12:21 PM <b>Alive and well</b>
 <b>Unknown name</b> Age Group: Adult Gender: Female Updated: 10/14/10 @ 12:20 PM <b>Alive and well</b>	 <b>Unknown name</b> Age Group: Adult Gender: Male Updated: 10/14/10 @ 12:18 PM <b>Alive and well</b>

CMAX 2010 People Locator Beta  
U.S. National Library of Medicine  
Lister Hill National Center for Biomedical Communications

Logged in: [User Name]



**ID**  
pl.nlm.nih.gov/person.10196

**Name**  
Janie Daniel

**Age Group**  
Unknown

**Gender**  
Female

**Status**  
injured

**When Reported**  
10/15/10 @ 10:47:09 AM

**Last Known Location**  
N/A

[View/Edit Full Record](#)

 <b>Unknown name</b> Age Group: Unknown Gender: Female Updated: 10/14/10 @ 12:39 PM <b>Injured</b>	 <b>Unknown name</b> Age Group: Adult Gender: Male Updated: 10/14/10 @ 12:21 PM <b>Alive and well</b>
 <b>Unknown name</b> Age Group: Adult Gender: Female Updated: 10/14/10 @ 12:20 PM <b>Alive and well</b>	 <b>Unknown name</b> Age Group: Adult Gender: Male Updated: 10/14/10 @ 12:18 PM <b>Alive and well</b>



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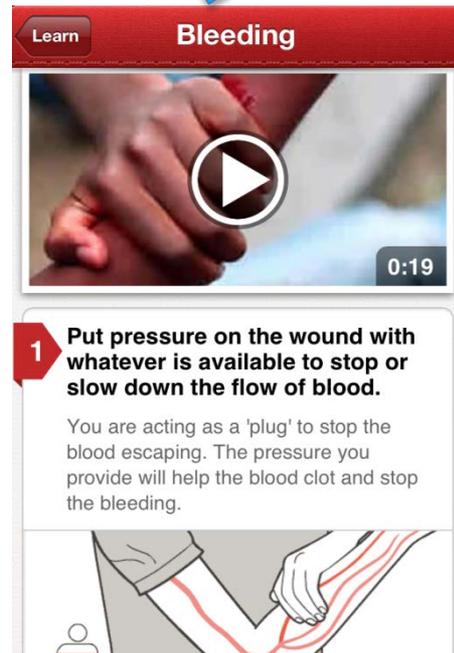
# FIRST AID



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# American Red Cross



First Aid



S.O.S. 

- Both require web or cell service for some features such as alerts and emergency calls



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# American Heart Association



- Stand-alone app
- Videos and illustrations
- Can store medical profile
- Cost \$1.99

Pocket First Aid & CPR



- Quick, simple
- Connectivity required to call 911
- Provides animated illustration of technique with beeps for recommended tempo

Hands-Only CPR



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# HEALTH INFORMATION



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# PubMed (m.pubmed.gov)



"mass vaccination" bioterrorism

Search Results (25) - Filtered Full Text

Filter by [Free Full Text](#) or [Review](#)

[Countermeasures and vaccination against terrorism using smallpox: pre-event event smallpox vaccination and its contraindications.](#)

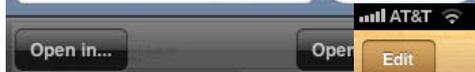
Sato H, et al. Environ Health Prev Med. 2011. Free full text



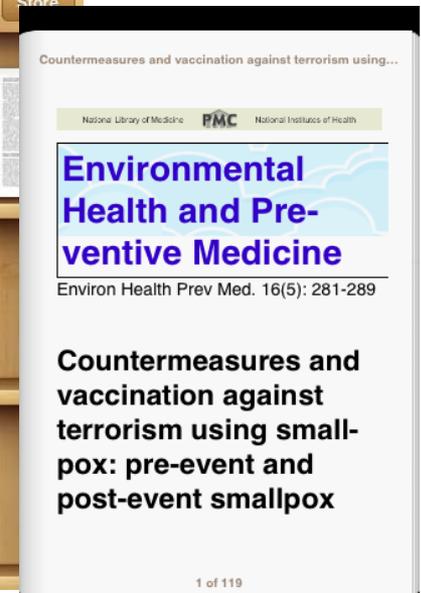
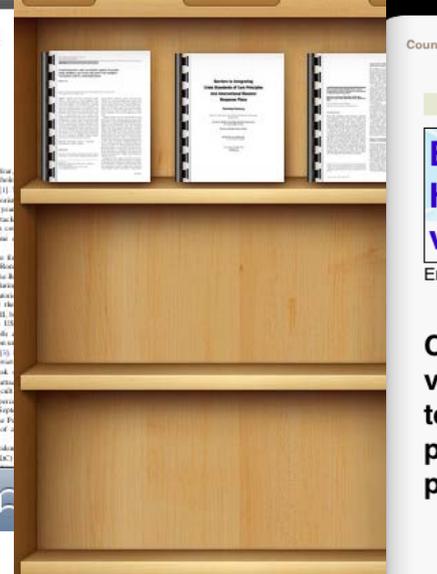
PubMed Search



Free article (HTML)



Free article (PDF)



Ex: iBooks

PubMed Reader

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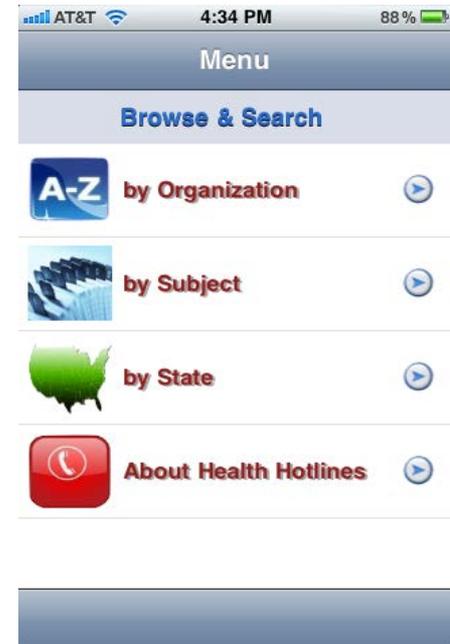
# MedlinePlus and Health Hotlines



MedlinePlus – info for the general public  
[m.medlineplus.gov](http://m.medlineplus.gov)



MedlinePlus in Spanish



Health organizations



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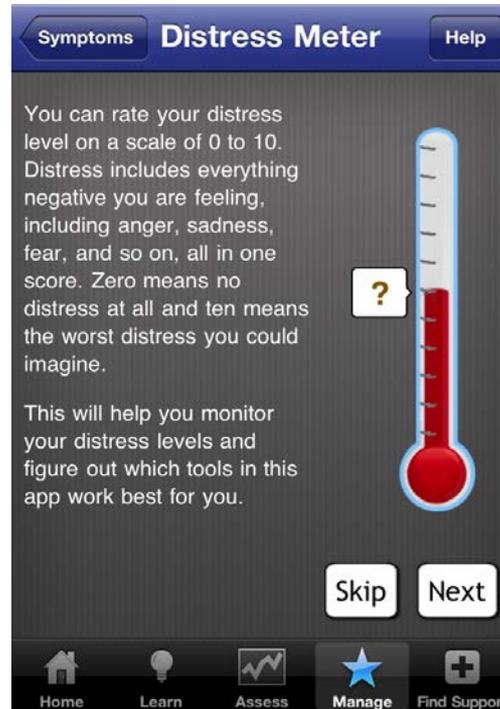
# BEHAVIORAL HEALTH



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# PTSD Coach



- Stand-alone education tool
- Connectivity needed for direct connections to crisis support
- Offers self-assessment tool
- Tools for managing stress



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# Psychological First Aid (PFA)



Home

About Help

- Learn About PFA
- Core Actions
- Survivor Stress Reactions
- Survivor Needs Form
- Provider

Provider Self-Care

Providing care and support in the immediate aftermath of disaster can be an enriching professional and personal experience that enhances life satisfaction through helping others. It can also be physically and emotionally exhausting. The following sections provide information to consider before, during, and after engaging in disaster relief work.

- Before Relief Work >
- During Relief Work >
- After Relief Work >

Provider Self-Care Do's

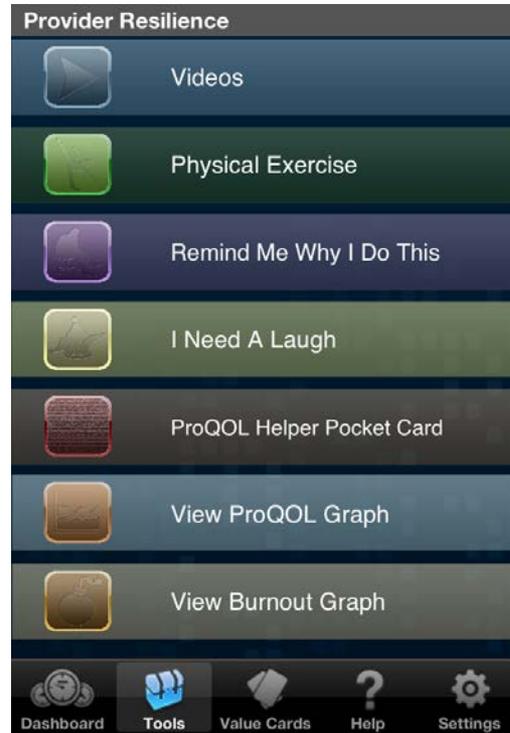
Make every effort to:

- Seek out and give social support
- Check in with other relief colleagues to discuss relief work
- Increase collegial support
- Schedule time for a vacation or gradual reintegration into normal life
- Prepare for worldview changes that may not be mirrored by others in your life

- Helps providers learn about conducting PFA
- Assists providers tracking survivor's needs in response
- Provider self-assessment with feedback
- Provider self-care support



# Provider Resilience



- For health care providers to help prevent compassion fatigue and burnout
- Can track self-assessment ratings over time
- Provides tips to fight stress, including exercises, Dilbert cartoons, and videos



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# HAZMAT/CBRNE

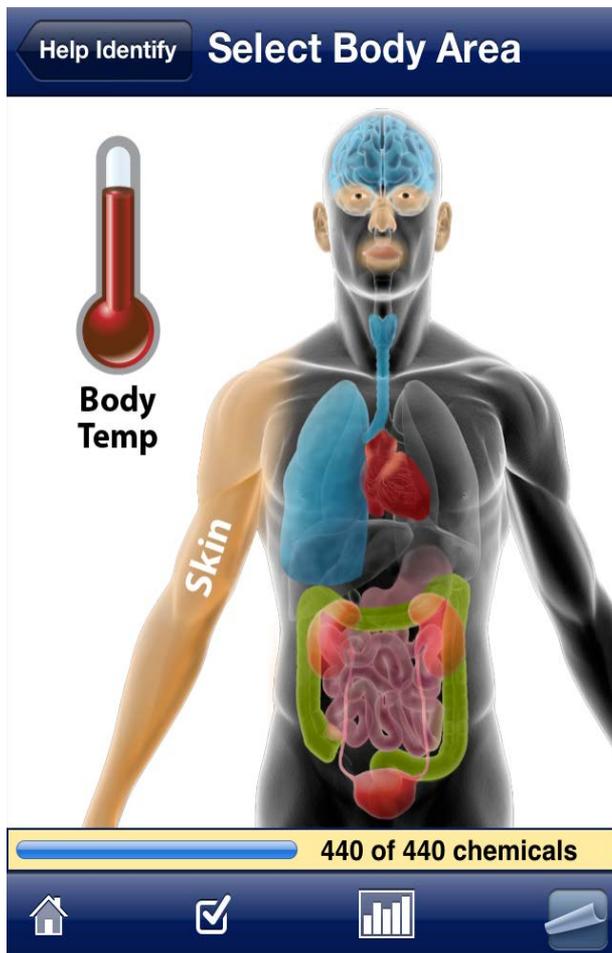


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# WISER



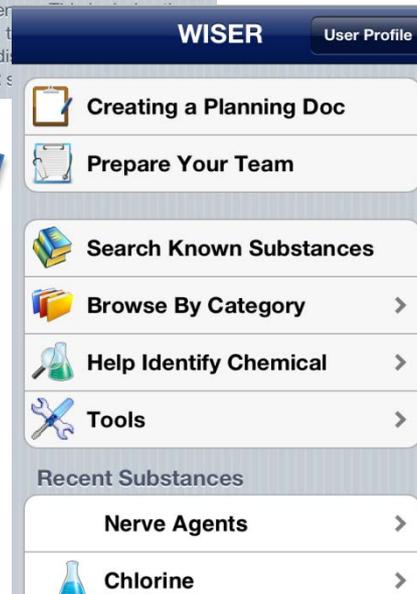
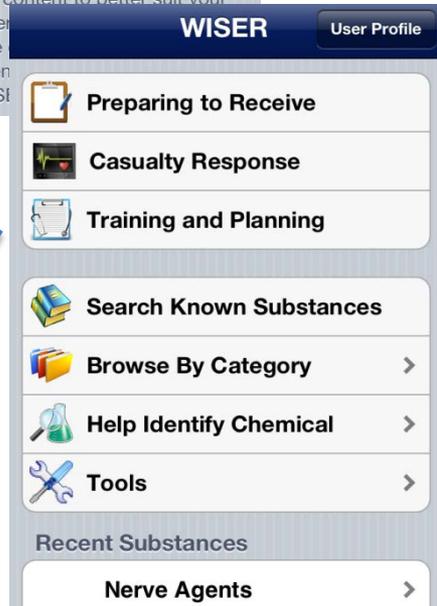
- Wireless Information System for Emergency Responders
- Integrates :
  - Chemical information (HSDB)
  - Fire/clean-up, PPE, & protective distance information (ERG)
  - Medical treatment information (Poisindex/Meditext)
  - **CHEMM (for mass casualty chemical incidents) information – *New!***



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# WISER Profiles



- Information appropriate to your user role is brought to the top
- Easy navigation



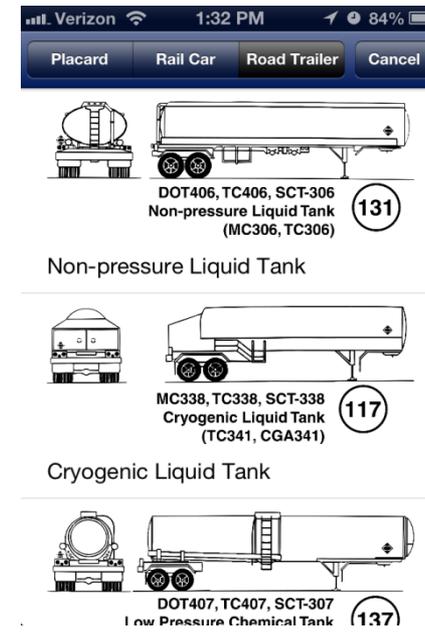
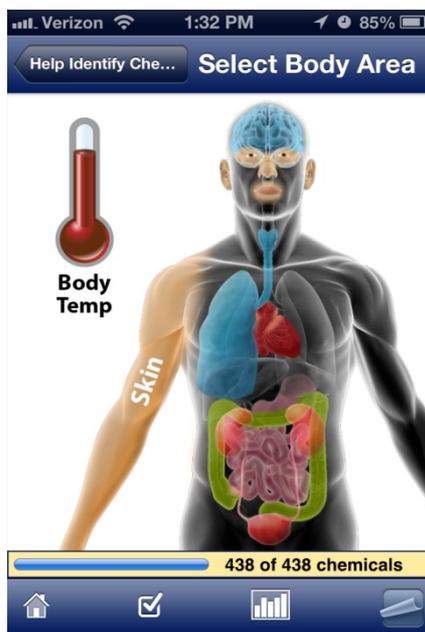
# WISER - Help Identify

## Options

## Add Signs/Symptoms

## Placards

## Transport Type

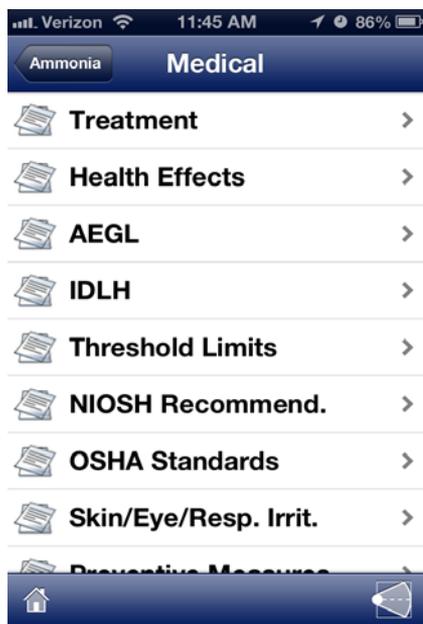


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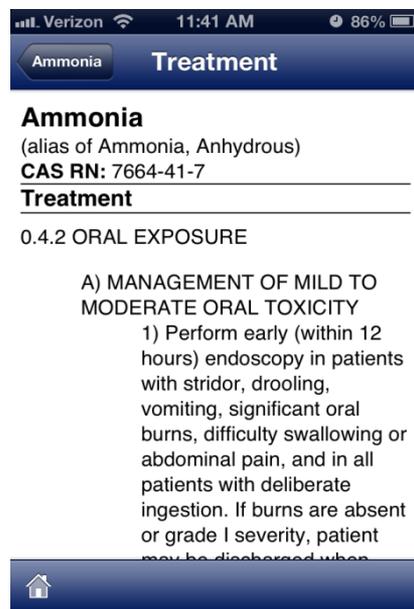
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# Ammonia – Medical Info

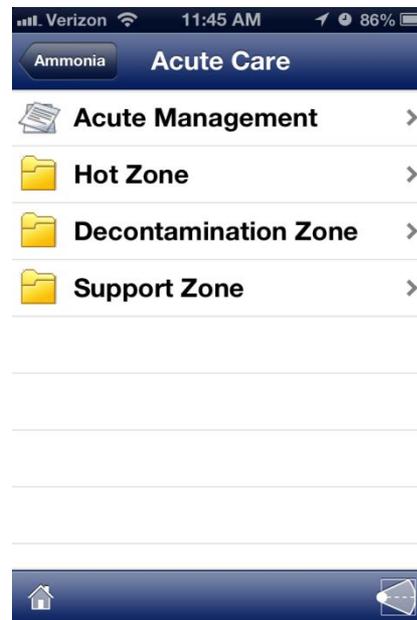
## Outline Info



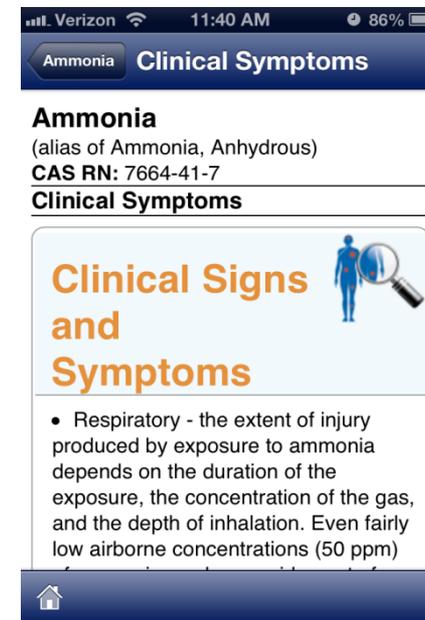
## Treatment



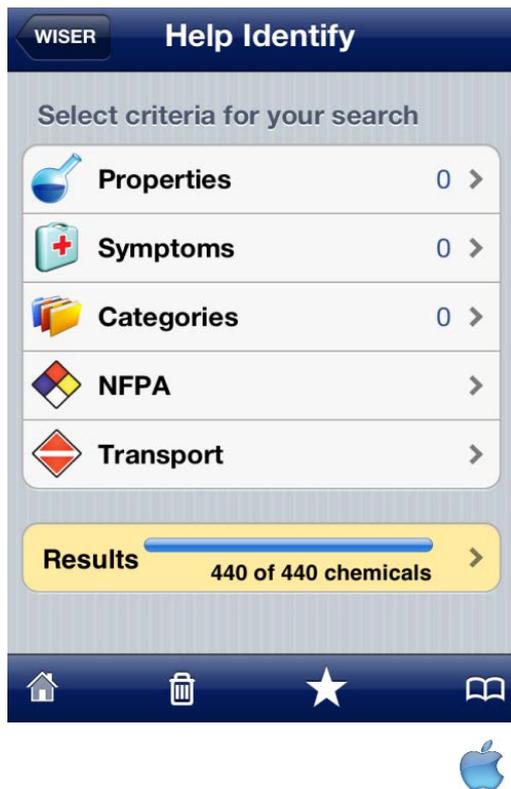
## Acute Care (CHEMM)



## Clinical Signs/Symptoms (CHEMM)

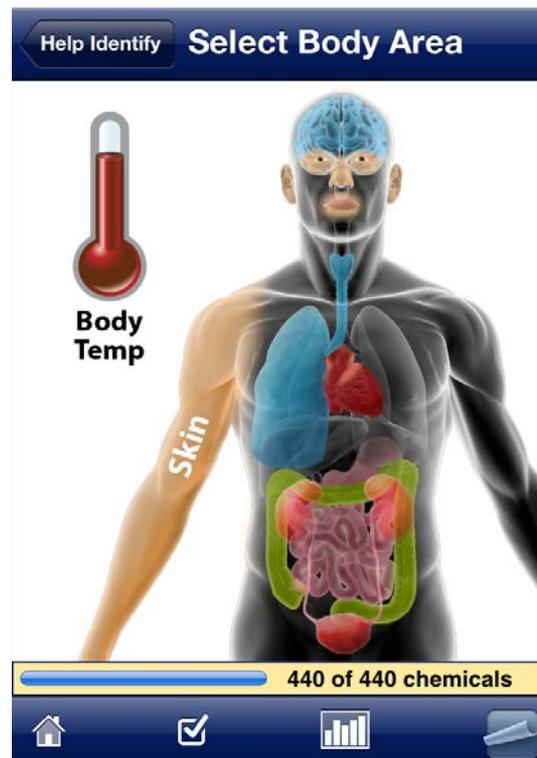


# WISER – Help Identify



Help Identify an unknown chemical based on:

- Properties
- Signs/symptoms (shown at right)
- Categories
- NFPA placard
- Transportation type



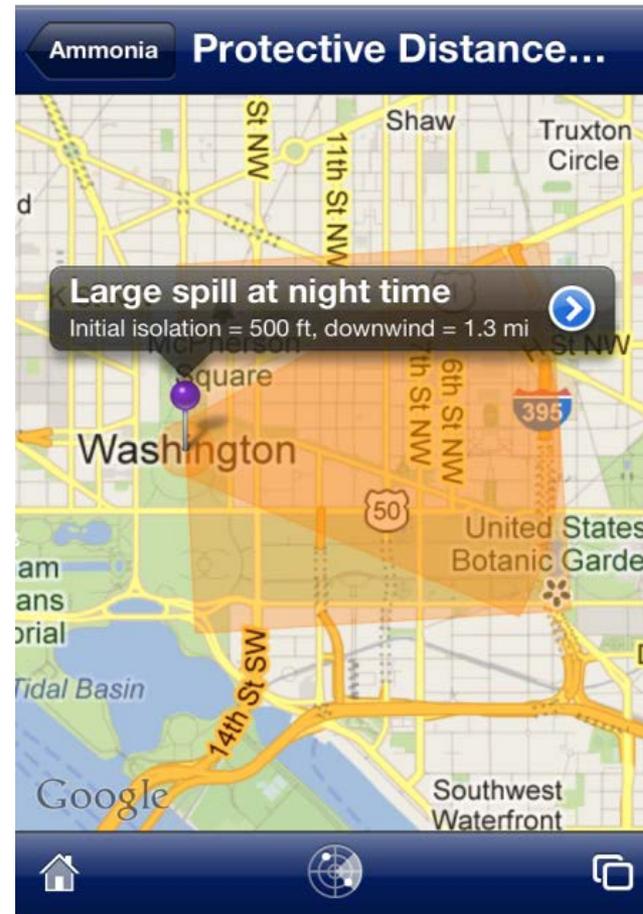
# WISER

## Protective Distance Mapping

Initial isolation & downwind evacuation distances plotted onto GIS map

- ERG protective distance data
- Select location
- Select wind direction
- Select spill size
- Plot

Connectivity required!



# WISER – CHEMM Integration

Chlorine Agent Specific Triage

**Chlorine**  
CAS RN: 7782-50-5  
Agent Specific Triage

**Chlorine Specific Triage**

- In a mass casualty situation, asymptomatic patients who are reliable historians and those who experienced only minor sensations of burning of the nose, throat, eyes, and respiratory tract (with perhaps a slight cough) may be released. In most instances, these patients will

Chlorine Clinical Symptoms

**Chlorine**  
CAS RN: 7782-50-5  
Clinical Symptoms

**Clinical Signs and Symptoms**

- Respiratory - being water soluble, is primarily absorbed by the upper airway.
- Exposure to low concentrations (1-10ppm) may cause eye and nasal irritation, sore throat and cough.

Chlorine Decontamination

**Chlorine**  
CAS RN: 7782-50-5  
Decontamination

**Basic Decontamination**

**Set up Considerations**

- Use pictorial and written posted instructions for victims to self-decontamiate when able, use locale-appropriate multilingual signage.

- **Mass casualty** chemical incident information from CHEMM
- **Integration** - users won't remember multiple apps



# WISER – CHEMM-IST

## Toxic Syndrome Prediction

- Determine toxic syndrome/group (rather than individual chemical) based on signs/symptoms
- Specific questions asked – answers drive prediction tool to most likely syndrome

The image displays five sequential screenshots of the CHEMM-IST mobile application interface, illustrating the workflow for toxic syndrome prediction.

- Screen 1:** "CHEMM Tools CHEMM-IST" header. Question: "State of Alertness?". Options: Unconscious, Altered, Awake, Anxious. Progress bar is at 0%.
- Screen 2:** "CHEMM Tools CHEMM-IST" header. Question: "SLUDGE?". Options: Yes, No, Can't Assess. Progress bar is at approximately 25%.
- Screen 3:** "Syndrome Prediction Done" header. Text: "Select a toxic syndrome for the medical management guidelines". Four syndromes are listed with progress bars: Knockdown Syndrome (1.1), Pesticide Syndrome (9.2), Acute Solvent Syndrome (1.0), and Irritant Gas Syndrome (1.2).
- Screen 4:** "Syndrome Prediction" header. Title: "Organophosphorus Pesticides and Nerve Agents - Tabun (GA), Sarin (GB), Soman (GD), and VX". Description: "Nerve agents are highly poisonous chemicals that work by preventing the nervous system from working properly. Nerve agents and other organophosphate pesticides cause acetylcholinesterase inhibition, resulting in signs and symptoms such as pinpoint pupils, eye pain, sweating, drooling, tearing, vomiting, and seizure, also known as Pesticide Syndrome."
- Screen 5:** "Cancel History" header. A list of symptoms and their predicted values: State of Alertness (Unconscious), Sudden Unconsciousness (Ca...), Pinpoint Pupil (Yes), Seizure (No), Cardiac Signs (No), Wheezing (No), Wet lungs/Rales (No), Sweaty (Yes), Irritated or Burning Skin (No).



# ERG 2012



- Emergency Response Guidebook (ERG) by U.S. Department of Transportation (DOT)
- “Bible” for 1<sup>st</sup> Responders & Hazmat
- Information on :
  - Fire suppression/clean-up
  - PPE
  - Protective distance
  - & more...
- New version ever 4 years



# ERG 2012 - Example

ERG 2012 UN 1017  
Chlorine

**GUIDE 124** ERG2012  
GASES - TOXIC and/or  
CORROSIVE - OXIDIZING

**POTENTIAL HAZARDS**

**HEALTH**

- TOXIC; may be fatal if inhaled or absorbed through skin.
- Fire will produce irritating, corrosive and/or toxic gases.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Runoff from fire control may cause pollution.

**FIRE OR EXPLOSION**

- Substance does not burn but will support combustion.
- Vapors from liquefied gas are initially heavier than air and spread along ground.

Guide 124 Protective Distance Table 3

ERG 2012 UN 1017  
Chlorine

[Go to Large Spills](#)

**SMALL SPILLS** - (From a small package or small leak from a large package)

ID	MATERIAL	First ISOLATE in all Directions	Then PROTECT Downwind
1017	Chlorine	60 m 200 ft	<b>DAY</b> 0.4 km 0.2 mi <b>NIGHT</b> 1.5 km 1.0 mi

[Go to Small Spills](#)

**LARGE SPILLS** - (From a large package or many small packages)

Guide 124 Protective Distance Table 3

ERG 2012 UN 1017  
Chlorine

[Rail tank car](#)  
[Highway tank truck or trailer](#)  
[Multiple ton cylinders](#)  
[Multiple small cylinders or single ton cylinder](#)

Transport Container	Rail tank car	
First ISOLATE in all Directions	3000 ft (1000 m)	
DAY	Low	7+ mi (11+ km)
	Moderate	5.6 mi (9 km)
	High	3.4 mi (5.5 km)
NIGHT	Low	7+ mi (11+ km)
	Moderate	7+ mi (11+ km)

Guide 124 Protective Distance Table 3

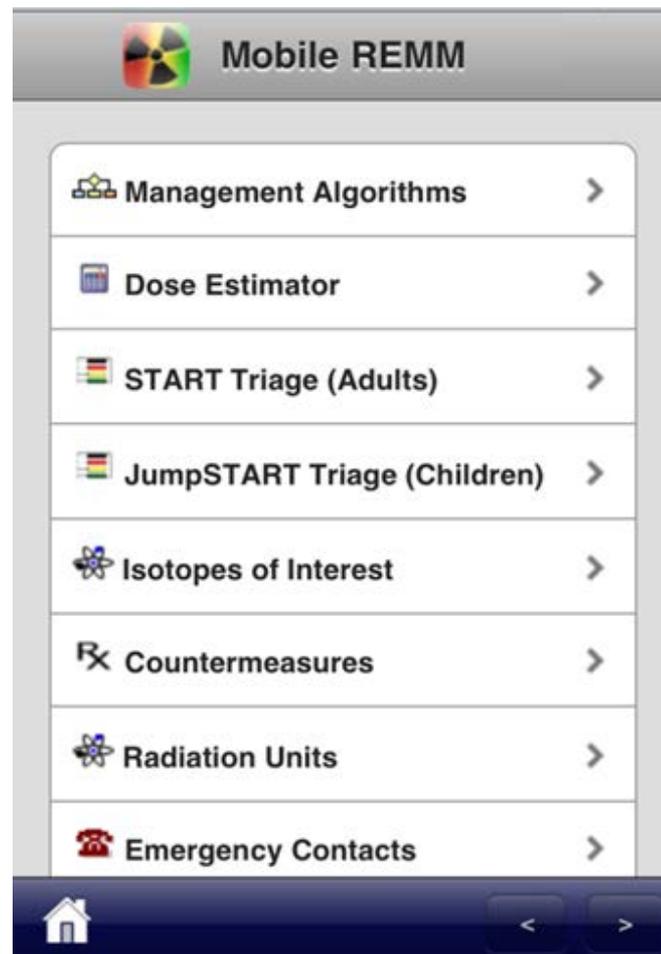
Example – Chlorine (UN 1017):

- Guide page 124
- Protective Distance data
- Table 3 data (transport isolation tables)



# REMM

- Radiation Emergency Medical Management
- Provide guidance for healthcare providers about clinical diagnosis & treatment of radiation injuries during radiation/nuclear emergencies.



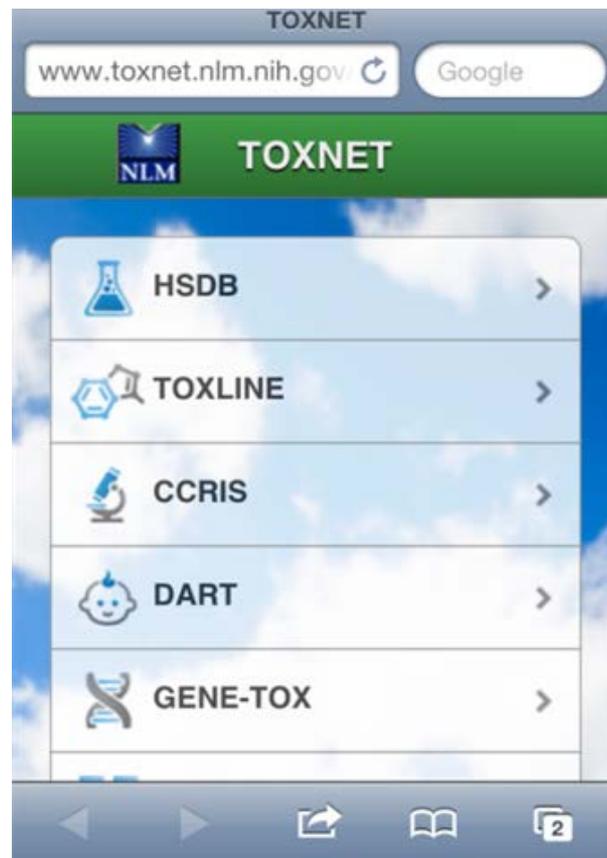
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# Mobile TOXNET



- Access multiple chemical databases (HSDB, TOXLINE, CCRIS, DART, GENE-TOX, etc.) on your mobile device.
- Easy to use
- Mobile-optimized web interface
- Information on:
  - Toxicology
  - Hazardous Chemicals
  - Environmental Health



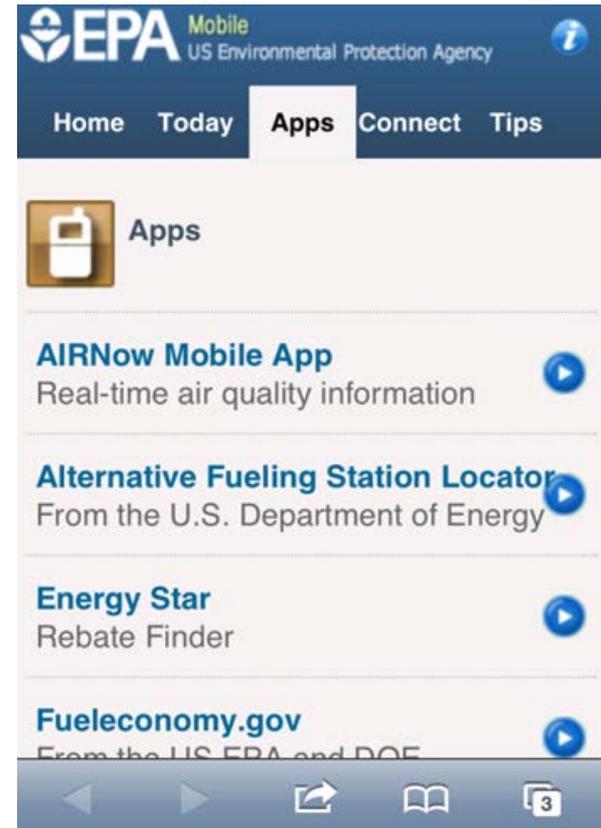
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# Mobile EPA



- Environmental Protection Agency's (EPA) mobile-enhanced web site.
- Identifies nearby industrial facilities & toxic chemical releases (as reported through Toxic Release Inventory [TRI] program)
- Select the "Learn about your environment" tab.



# Center for Biosecurity



## BioAgent Facts app

- For the public
- Facts on major bioterrorism agents & natural epidemics

## Clinicians' Biosecurity Resource app

- Clinical reference for healthcare providers & public health officials
- Information on disease symptoms, PPE, treatment & prevention for CDC Category A bioterrorism agents
- Access to Clinicians' Biosecurity News (CBN) – newsletter with timely updates on biodefense research



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Essential Disaster Health Information on your Mobile Device

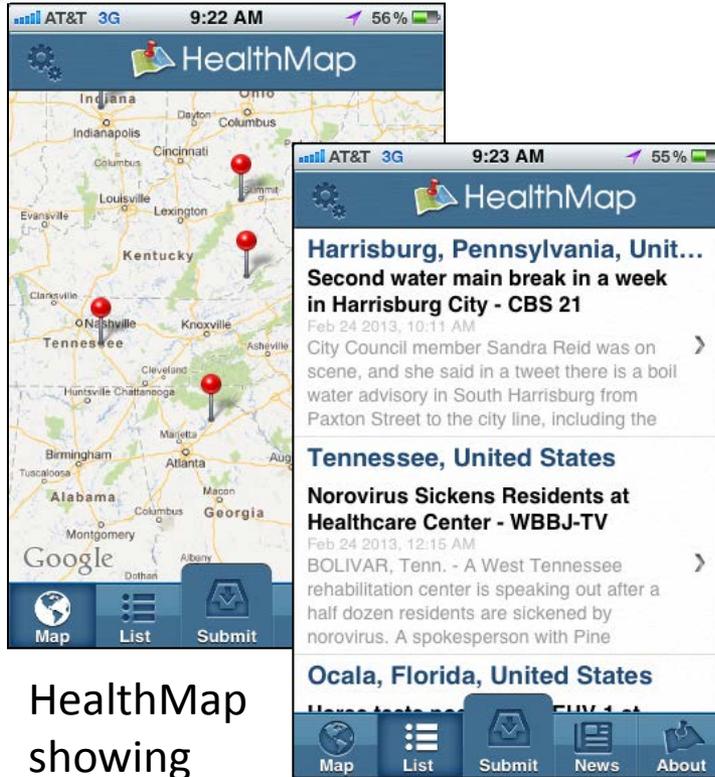
# MAPPING



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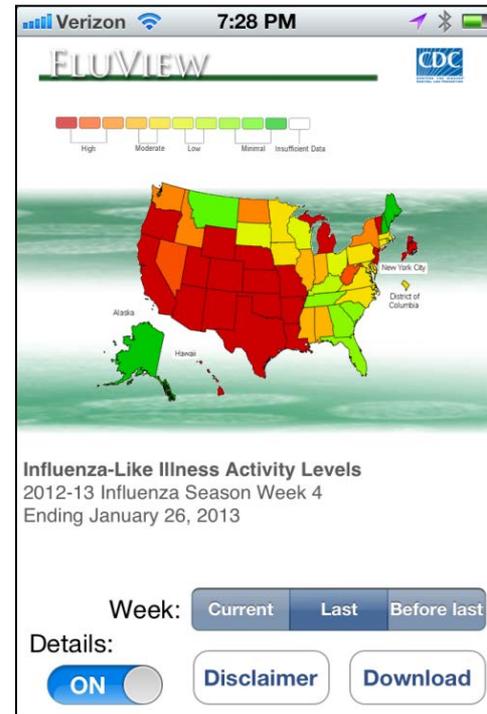
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# Outbreaks Near Me and FluView



HealthMap showing incidents

Details of incidents



CDC's FluView 



Essential Disaster Health Information on your Mobile Device

# ALERTS



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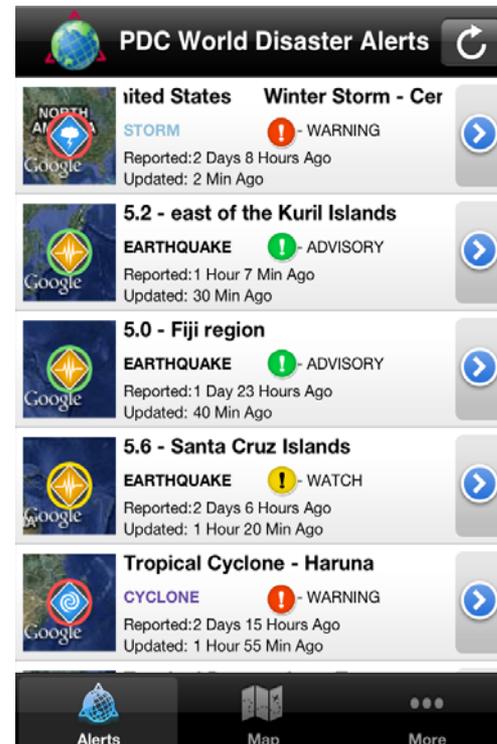
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# World Disaster Alerts



- Requires connectivity
- Icons for “Hot spots” showing type and severity of natural disasters/events
- Click on icons for event-specific information



- Alerts tab
- Scrolling list of current natural disasters or events



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# Weather



2 Miles ESE Atlanta GA

**Watch In Effect**  
Updated 11:53 AM EST

**Current Conditions**

Hartsfield-Jackson/Atlanta International Airport  
Lat: 33.66 N Lon: -84.42 W Elev: 1010 ft  
Last Updated: Feb 21 2013 10:52:00

**Wind Speed**  
E 8 MPH

**A Few Clouds**  
50°F

- Requires connectivity
- Current conditions and forecast
- Rivers/lakes flooding conditions
- Text, graphics, maps

National Weather Service



NHC Mobile

www.nhc.noaa.gov/mob

National Weather Service  
**National Hurricane Center**  
Last update:  
Thu, 21 Feb 2013 17:36:33 UTC

**Atlantic-Carib-Gulf Mex**  
The Atlantic hurricane season runs from June 1st through November 30th.

**East Pacific**  
The East Pacific hurricane season runs from May 15th through November 30th.

**Tropical Weather Discussion**  
[Atlantic](#)  
105 PM EST THU FEB 21 2013



- Requires connectivity
- Text and maps

NHC Satellite (Large)

www.nhc.noaa.gov/mob

US East Coast - [Loop](#)  
Image updated:  
Fri Feb 22 2013 15:15 UTC  
[Zoom Out](#) [Zoom In](#)

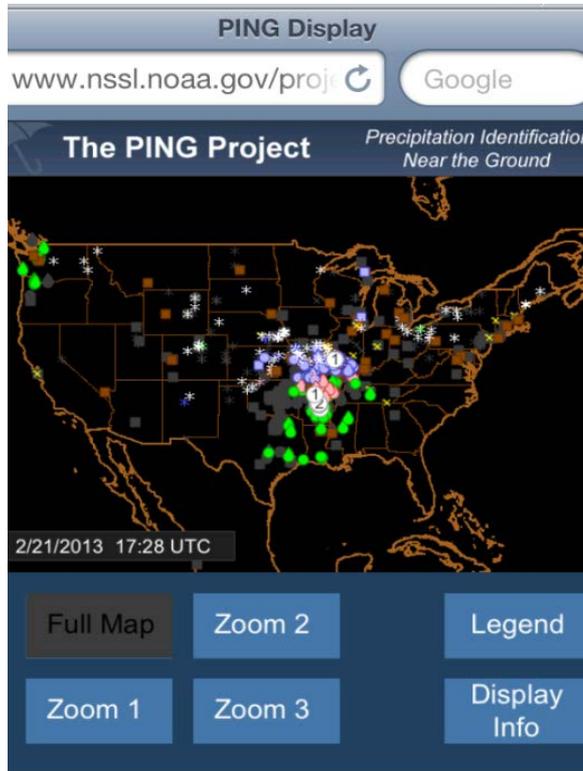
[Satellite Menu](#)  
[Home](#)  
NHC Homepage: [www.nhc.noaa.gov](http://www.nhc.noaa.gov)

National Hurricane Center





# Weather – The Ping Project



NOAA – National Severe  
Storms Laboratory



- Research project
- Report type of precipitation at your location
- Observe collective reports
- Requires connectivity



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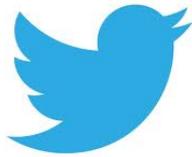
# **SOCIAL MEDIA: SITUATIONAL AWARENESS & COMMUNICATION**



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# Twitter



 **NLM Disaster Info**  
@NLM\_DIMRC

First responders and receivers - new to CHEMM? Learn how to use this tool at [go.usa.gov/frX](http://go.usa.gov/frX)

2/22/13 11:02 AM

 **NCDMPH**  
@NCDMPH

Report on power and communication problems in the aftermath of the June 2012 Derecho [fcc.us/13vCE7h](http://fcc.us/13vCE7h)

2/25/13 8:31 AM



Streams

-  **Mentions**  
nortonef
-  **Sent Tweets**  
nortonef
-  **#smem**  
Keyword
-  **#hsem**  
Keyword
-  **#earthquake | earthquake**  
Keyword
-  **@nlm\_dimrc**  
Keyword
-  **#smemnlm**  
Keyword
-  **nlm\_dimrc**  
Keyword

Streams Search Stats Contacts Settings



Streams #hsem Keyword

-  **Eric\_Holdeman** 13 mins ago  
Near Earth Objects Finally Land on Public's Radar: #smem #hsem #nema #iaem #dhs #FEMA #neo lnkd.in/3WYw5C
-  **DisasterPIO** 24 mins ago  
Transportation Secretary Warns of Long Flight Delays Due to FAA Sequester [dvr.it/30VL0n](http://dvr.it/30VL0n) #hsem
-  **CACPGT** 1 hour ago  
Social Media Survey for Emergency Managers [emergencymgmt.com/emergency-blog...](http://emergencymgmt.com/emergency-blog...) #socmed #sm4em #smem #smemchat #hsem
-  **ShannonBuckland** 6 hours ago  
Emergency-Management-Degree.org: A New Web Guide for the Emergency Management Field [binad.it/138Szk](http://binad.it/138Szk)

Streams Search Stats Contacts Settings



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# Facebook and Skype



**Maryland Emergency Management Agency (MEMA)**  
29,072 likes · 521 talking about this · 40 were here

Government Organization  
Official Facebook page of the Maryland Emergency Management Agency. All-hazard emergency preparedness and disaster information for Maryland. These accounts are

2/25 NWS 8:07 am: A Winter Storm Watch is in effect for Garrett and Allegany County from late tonight through Tuesday morning. A wintry mix of freezing rain, sleet and snow is expected.

2/22 NWS 12:12 pm: A Winter Weather Advisory for sleet and freezing rain is in effect for Northern Baltimore, Carroll, Frederick, and Washington Counties until 10 am Saturday.

Recommendations

- Christie Nelson Daniel**  
Do Marylanders have anything like this that we could utilize...  
1 · last Tuesday
- Summer Downs**  
Could you please help us by sharing our pages https://ww...  
1 · about a month ago
- Sarah Smith**  
SAFEHUT needs your help to spread the word. Emergency,...  
about 2 weeks ago
- Jerry Kurtz Sr.**  
Focus on School Safety. The thumb print and keyed entry d...  
1 · about a month ago

Likes

- Howard County Government**  
Government Organization



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**OTHER**



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# NLM App of Apps

(list of NLM mobile web sites and apps)

<http://www.nlm.nih.gov/mobile>



NLM App of Apps 



Organized by subject,  
device and type



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# Other Useful Types of Apps



Flashlight



QR Code Reader



In Case of Emergency



News



Drug Reference



Journals/Newsletter



Interactive Earthquake Mapping



Ushahidi



Flood and Water Level Monitoring



Relief Central



E-Reader

- **Examples only**
- **Not endorsing any particular developer or product**
- **Search iTunes Store, Google Play, BlackBerry World**



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# Organizing your Apps



# Final Words of Preparedness

- Know your apps and what they can and cannot do for you
- Keep your apps updated
- Remember your password for Apple iTunes, Google Play or BlackBerry World!



Essential Disaster Health Information on your Mobile Device

**QUESTIONS?**



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# Contact Information

**Disaster Information Management Research Center apps page:**

<http://disasterinfo.nlm.nih.gov/dimrc/disasterapps.html>

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