G0557: Rapid Needs Assessment



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Unit 1: Course Administration and Safety

Visual 1:

G0557 Rapid Needs Assessment

Course Administration and Safety

Visual 2: Objectives

At the end of this unit participants will:

- Be properly registered
- Understand the required safety procedures
- Meet the course facilitators and other participants

Visual 3: <u>Course Facilitators</u>

- Name
- Background Information
- Other points of interest

Visual 4: <u>Registration</u>

Please check roster for:

- Proper spelling of name
- Preferred contact information
- Make corrections as necessary

Visual 5: Safety and Other Information

- Fire exit and assembly point
- Severe weather safety
- Accident or illness
- Emergency calls
- Cancellation procedure/notification

Visual 6: Building Information

- Restrooms
- Parking
- Break rooms
- Access restrictions/security procedures
- Smoking regulations
- Other

Visual 7: <u>Classroom Etiquette</u>

- Turn cell phones and pagers off or to silent
- Safe learning environment:
 - What is said in the room, stays in the room
 - Tolerate differing opinions
- Use microphone when presenting or answering/ asking questions
- No sidebar conversations!
- Please clean up after yourself

Visual 8: <u>Course Materials</u>

- Student Manual
- Evaluation form
- Other

Visual 9: Class Agenda

- 08:00 Unit 1: Administration and Safety
- 09:00 Unit 2: Starting Points and Exercise 1
- 10:00 Unit 3: Planning and Priorities
- 11:00 Unit 4: Data Collection and Transmission
- 12:00 Lunch
- 13:00 Unit 5: Analysis of Information
- 14:00 Unit 6: Training and Exercise
- 15:00 Unit 7: Review and Final Test

Visual 10: Participant Introductions

- Name
- Agency/Organization
- Experience
- What do you want to get out of this course?

Visual 11: <u>Requirements</u>

To receive a certificate for this courses...

- You must attend all sessions
- You must complete the final test with a 70% or better score

Visual 12: <u>Review</u>

At the end of this unit

- Participants will be properly registered
- Participants will understand the required safety procedures
- Participants will meet the course facilitators and other participants

Visual 13: And now...

Take a 10 minute break!

Unit 2: Planning

Visual 1: Rapid Needs Assessment

Planning

Visual 2: Objectives

At the end of this unit participants will be able to:

- Explain the purpose of a Rapid Needs Assessment
- Describe the starting point for planning for a Rapid Needs Assessment

Visual 3: Importance

Why is a Rapid Needs Assessment important?

Visual 4: Importance

The ability of local governments to perform a Rapid Needs Assessment accurately and within the first few hours after an incident or emergency is critical to providing a response designed to save lives and support life sustaining actions.

Note:

This is the official answer to the question on the previous visual.

Visual 5: <u>Benefits</u>

Rapid Needs Assessments provide:

- Effective life-saving and life-sustaining measures
- Tools for response prioritization
- Effective resource requests
- Disaster Public Information

Note:

These are some of the benefits of an effective Rapid Needs Assessment. A good assessment will allow community leaders to prioritize response actions to have the greatest life-saving and life sustaining benefits. As resources will be limited on the local level during the first few hours of a disaster or emergency event, the Rapid Needs Assessment should allow for the effective use of resources. Likewise, it will allow local officials to request those resources that are not available locally and are needed to support life sustaining and life saving measures.

Visual 6: <u>Requirements</u>

To be effective, Rapid Needs Assessments must be:

- Planned
- Effectively and rapidly initiated
- Effectively analyzed and prioritized

Note:

In order to receive the benefits of a Rapid Needs Assessment the assessment process must be effectively planned. Assessments just do not happen when a disaster or emergency occurs. They require planning and training to support the planned activity if they are to realize their greatest potential. When needed, the Rapid Needs Assessment must be rapidly implemented by local governments. Assessment teams must be identified and trained together. The field teams need to be supported by personnel who can rapidly analyze the findings of the individual teams and presented to management to support prioritization and decision-making.

Visual 7: <u>Coordination and Involvement</u>

Planning and response involves participation from:

- Law Enforcement
- Fire, EMS, Hospitals and medical providers
- Public Works
- Volunteer Organizations Active in Disasters
- Emergency Management Agencies

Note:

An effective Rapid Needs Assessment requires planning and participation from a variety of agencies. The basic agencies that are commonly used are law enforcement, fire and EMS, hospitals and medical providers, public works, volunteer disaster response agencies and organizations such as the Red Cross and Salvation Army and emergency management agencies.

Visual 8: Assessment

Assessment *must* focus on:

- Issues directly related to life-saving or life-sustaining needs
- On areas that are known to be problematic
- Data collection on information that is essential for analysis

Note:

It is important to always remember that the Rapid Needs Assessment is not a complete damage assessment. The Rapid Needs Assessment *must* focus on issues related to life-sustaining or life-saving needs and operations. In addition, other areas that are known to be problematic must be included in the process. For example, a local campground may be subject to flash flooding during heavy rains. Plans should be made for this area to be assessed if a major rainfall event occurs.

The data collected by the Rapid Needs Assessment must focus on those subjects and areas that are essential for analysts to review to derive further information and data to be used by decision-makers.

Visual 9: <u>Remember</u>

Prioritization is a must

- You *must* understand what is important to assess
- You must understand the cause and effect relationship of what you are assessing
- The assessment *must* look beyond the obvious

Note:

One of the most critical aspects of the process is the ability to prioritize. This is essential, as in an emergency you simply do not have time to look at everything. The prioritization must be based on what is really important which many times must look beyond the obvious. Causes and effects can play a big role in the process too.

Visual 10: Starting Point

- Review the hazard analysis
- Review the risk analysis
- Determine vulnerability
- Determine effects
- Determine consequences

Note:

Your starting point to plan for a rapid needs assessment begins with a review of the hazard analysis for the community. What types of hazards do you face? Each community will face different hazards and therefore there is not a book solution to this question. Next you need to review what are the risks associated with those hazards. For example, a risk associated with a number of weather disasters is high winds. You start prioritizing you work by focusing on those risks that reappear most often in the analysis and therefore pose the greatest likelihood of being problematic. Once you know the risks, you need to look at the vulnerabilities in the community associated with those risks. While high winds may be expected throughout the community, you need to look at what those high winds will do. For example, they may bring down trees and cause large amounts of debris. They may cause structural collapse. Be careful that you do not lump everything into the same category. For example, older construction with basements will pose different vulnerabilities than new home construction on slabs or wide span steel buildings. Then you need to assess the specific effect of each vulnerability.

The effects of a building collapse involving wood structures with basements may be that people seeking refuge from the storm are trapped in rubble below grade. Or that a structural collapse involving a steel building may require heavy rescue equipment to rescue trapped survivors.

Finally, you must determine the consequences of that effect. This is where priorities are really set. In a flood event, would it be a greater priority to assess the life saving and life sustaining needs of a manufactured home park in the flood plain or that with an area of multi-floored masonry construction? And finally, determine the consequence of each effect. This will also help you set priorities for the actual assessment process. Some consequences may have a higher assessment and response priority than others, particularly when you are looking at the limitations immediately following a disaster or major emergency event.

Visual 11: History

- Does the hazard analysis identify areas more likely to be impacted?
- Have past events impacted some areas more than others?

Note:

Another starting point for an analysis would be past history. Has the community hazard analysis identified any types of disasters or location of a disaster in the community that can be researched to determine if there is a possibility of a similar event?

Visual 12: Planning and Resources

Reviewing the Hazard Analysis for the community can help set priorities and resource needs for the rapid needs assessment

Note:

By reviewing the hazard analysis, you can also get a sense of what the priorities may be in an emergency and what resources may be required to adequately perform the rapid needs assessment.

Visual 13: <u>Hazards (High Winds, Tornado)</u>



Hazards (High Winds, Tornado) Image Description

This is a schematic diagram of the process. In this case, the hazard is high winds or a tornado. The currently identified risks are: Power Outage, Building Collapse, and Hazmat release. Let's look at the power outage risk. One of the vulnerabilities identified is a power loss at the hospital. Through research, you find that while the hospital has a generator to provide service in the event of a power loss, the Heating, Ventilation, Air Condition system is not on the generator due to the large amount of power it would consume.

This is fairly typical of most hospitals. So in the event of a power loss even if the generator is running, the effect of the power outage would be the loss of HVAC systems. The loss of an HVAC system has both immediate and delayed effects on a facility. If the HVAC system is not restored in about 36 hours during summer, the facility will become uninhabitable due to high temperatures. But a more immediate concern is what does the loss of the HVAC do *now*. The loss of an HVAC system in a hospital may have the immediate effect of shutting down surgical operations as ventilation is essential for climate and infection control in operating suites.

By reviewing the hazard analysis, you can also get a sense of what the priorities may be in an emergency and what resource may be required to adequately perform the rapid needs assessment. The next activity will allow you to put this process to use. In a disaster where there are many critically injured people, this could have devastating results. Therefore, if this community has a disaster that includes a power loss at the local hospital, a rapid needs assessment should be made to determine what critical services have been lost at the facility due to the power loss. Other complications at the hospital may include the loss of advanced medical imaging, such as CAT scans and MRI's which are heavy power consumers that are frequently not on emergency generator circuits.

Visual 14: Group Activity 1

- Form groups of 3–5 people
- Pick a spokesperson for the group
- Using the next visual as an example discuss a **FLOOD** Hazard and identify at least three Risks associated with a flood
- Be prepared to report your findings to the class
- You have 15 minutes for this activity

Visual 15: Hazard Flood



Visual 16: <u>Group Activity 3</u>

Report Out Time!

Visual 17: <u>Review</u>

At the end of this unit participants will be able to:

- Explain the purpose of a Rapid Needs Assessment
- Describe the starting point for planning for a Rapid Needs Assessment

Visual 18: And now...

Take a 10 minute break!
Unit 3: Priorities

Visual 1: Rapid Needs Assessment

Priorities

Visual 2: Objectives

At the end of this unit participants will be able to:

- Describe the process for staffing a rapid needs assessment.
- Describe the basic tools required to support the rapid needs assessment process.

Visual 3: Planning

After you have identified potential key problem areas, you must plan for an organized assessment process

Note:

After you have identified potential problem areas, you need to plan how you will assess those points quickly and efficiently in an emergency to determine the required lifesustaining and life-supporting requirements.

Visual 4: Group Activity 2

Review the next visual:

- Based on a probable incident in your community
- Identify times from the incident to each other point on the visual

Visual 5: <u>Planning Time Line</u>



Visual 6: <u>Group Activity 2</u>

Report Out Time!

Visual 7: Skills

Match the skills required to perform an assessment with the identified areas.

- Waste Water Treatment facility public works or engineering
- Rescue fire service, law enforcement
- Medical public heath or EMS

Note:

Once you have identified the areas that require assessment, you need to identify who will assess those concerns in an emergency. This will require a variety of skill sets and one size does not definitely fit all. For example, to evaluate the impacts of a lift station being out, you may require the services of public works personnel or engineering staff that can look at the problem. For rescue of survivors you may turn to the fire service or law enforcement personnel, medical issues may be evaluated by public health or EMS personnel.

Visual 8: <u>Matching Skills</u>

Who would evaluate:

- Structural issues involving bridges?
- Mass fatalities?
- Hazardous materials release?
- Communication outages?
- Debris issues?

Visual 9: Group Activity 3

Who would possess the skills to evaluate:

- A. Emergency Shelters
- B. Schools
- C. Industrial Hazardous Materials Facilities
- D. Dams & Levees
- E. Healthcare Facilities
- F. Potable Water Treatment Facilities
- G. Airports

Visual 10: Group Activity 3

Report Out Time!

Note:

Some possible answers include:

Emergency Shelters – Red Cross, Salvation Army, Human Services Department, Health Department

Schools - Department of Education, Building Department and Inspectors

Industrial Hazardous Materials Facilities – Hazardous Material Teams, Industry Representatives

Dams and Levees – Natural Resource Agencies, Flood Control Districts, Public Engineers

Hospice Facilities – Medical Representatives, Health Departments

Potable Water Treatment Facilities – Health Department, Natural Resource Department, Facility Engineers

Airports – Highway and Transportation Departments, Civil Air Patrol

Visual 11: Job Aids



Note:

Planners need to consider how things will be prioritized during an actual emergency. Job aids, such as decision trees can be helpful to provide solid methodology for emergency implementation. When creating decision trees, remember the KISS principal (Keep It Simple S) and avoid making the process overly complex. When exercises are conducted, decision trees should be tested and refined if possible.

Visual 12: Set Overall Priorities

Which is more important?

- Hospital or medical clinic?
- Hospital or nursing home?
- Nursing home or day care center?
- Day care center or school?
- School or nursing home?
- School or hospital?

Note:

These priorities may change if and when an event occurs, but the relative calm during the planning phase allows for a thoughtful process to take place in setting some priorities rather than a gut reaction to a crisis event. The process of setting priorities is not easy, but since evaluation staff will always be in short supply, you need to establish some criteria for how you are going to assess your needs.

Visual 13: Factors

Variables may effect prioritization:

- Time (day or night)
- Season (winter, summer, tourist)
- Special community events
- Continuing or Developing threats

Note:

Time of Day – suggested answers may include: A facility may not be operating or closed and therefore receives a lower priority than a site operating 24 hours a day.

Time of Year – suggested answers may include: A facility may only be seasonal or have a higher priority at certain times of the year. For example, a lift station may be more important during the spring snowmelt than during the dead of winter.

Special Community Events – suggested answers may include: A special event may bring people into the community into more susceptible areas and therefore require a higher priority for evaluation at certain times of the year.

Developing Threats – suggested answers may include: There may be secondary or developing threats that impact prioritization. For example, flooding may be the primary need for the rapid needs assessment, but a threat to dam upstream may create a greater evaluation need in certain areas than others.

Resources Immediately Available – suggested answers may include: If you have a hazmat release in a winter storm and the responding team may not be able to respond immediately, there may be changes to the prioritization for assessment.

Importance to the Community – suggested answers may include: If the community has only one hospital, the need to quickly assess that facility may be higher than a community with multiple hospitals available.

Political Issues – suggested answers may include media coverage or public interest may cause political issues that can impact the priority of a site or facility for evaluation.

Visual 14: <u>Review</u>

At the end of this unit participants will be able to:

- Describe the process for staffing a rapid needs assessment.
- Describe the basic tools required to prioritize the rapid needs assessment process

Visual 15: And now...

Take a 10 minute break!

Unit 4: Data Collection and Transmission

Visual 1: Rapid Needs Assessment

Data Collection and Transmission

Visual 2: Objectives

At the end of this unit participants will be able to:

- Describe the importance of planning for data collection
- Describe the importance of redundant data transmission systems and means

Visual 3: <u>What is important?</u>

As part of the planning process

- A standardized means of data collection should be implemented
- Regional or statewide systems are best to assure uniformity
- Focus on what data you need to interpret what is really going on!

Note:

Data collection must focus on those elements that are the most important. In order to assure that the proper data is collected so that an accurate analysis of the current situation can be made, data collection should be a formalized process and procedure. It is important that a standardized means of data collection be a part of the planning and implementation system.

The best way of dealing with data collection is use a system that is uniform throughout a state or region. This allows for easy sharing of resources in an emergency. Remember, you must focus on data that is going to allow for analysis and interpretation to determine what is needed to support life supporting and life sustaining operations.

Visual 4: Data

Data is simple information

- It provides a base, but not a means
- It is just facts and figures until the data is analyzed

Note:

It is important to understand the difference between data and intelligence which is produced from data by analysis to provide useful information. Data is raw facts and figures. While it is essential to have good data, this information has value added when it is analyzed. Analysis turns raw data into useful information that can be used by decision-makers.

Visual 5: Data Analysis

Analysis provides useful intelligence

- It turns facts and figures into useful information
- To be effective, analysis requires the collection of the proper data

Note:

Generally speaking, the more specific the data the more useful it becomes. But all data with proper analysis can be valuable.

Visual 6: Data Details

The more detailed or specific the data

- The more useful it becomes
- The more focused the analysis

Better intelligence is produced

But all data is useful depending on how it is used

Visual 7: <u>Example</u>

- 1. Debris is widespread
- 2. Debris is blocking roads
- 3. Debris is blocking main roads on the SW side of the city and making travel difficult
- 4. Debris is blocking access to the hospital and preventing ingress of emergency traffic

Note:

Debris is widespread – a wide area has impacted by the event.

Debris is blocking roads – An unknown number of roads have debris blockage, but it is unknown if the debris blockage is complete or what roads are being impacted.

Debris is blocking main roads in the SW side of the city – This is limiting the geographic area and is now providing information on the type of roads that are being impacted and to what extent.

Debris is blocking access to the hospital and preventing ingress of emergency traffic. This is highly specific data that has obvious implications.

Visual 8: Identifying Data Needs

Look at cause and effect relationships

- Power is out therefore MRI scans cannot be made
- If MRI scans cannot be made, medical diagnosis is compromised
- If medical diagnosis is compromised, patient care becomes more difficult

Therefore, power failures complicate patient care and efforts should be made to restore power

Note:

One way to determine data needs is to perform a reverse analysis. That is, look at the impacts and problem areas that compromise life supporting and sustaining activities and determine what data is required to come to those conclusions. This should involve looking at cause and effect relationships. These are some examples of cause and effect relationships.

Look at cause and effect relationships

- Power is out therefore MRI scans cannot be made
- If MRI scans cannot be made, medical diagnosis is compromised
- If medical diagnosis is compromised, patient care becomes more difficult

Therefore, power failures complicate patient care and efforts should be made to restore power.

Visual 9: Formatting Data

- Data should be formatted to ease and speed collection
- Communications *must* be taken into account
- Data collection should support multiple communication platforms
- Data collection should require minimal expertise on the part of field staff

Note:

The collection of data cannot be left to chance. Forms must be created to ensure the proper collection of data. When formats are made for data collection consideration must be given to how that data will be collected. Data collection systems should support multiple data collection systems and should be as foolproof as possible.

Visual 10: Transmission

Think about use of multiple systems

- Plan for system congestion
- Remember stress factor
- Think about minimal training prior to use
- Make everything as simple as possible!

Note:

When thinking about communication and data transmission, you should consider the following items. First, plan for massive system congestion. Real life incidents jam communications systems far in excess of what can be simulated in exercise events. Remember that in a real life event you will be expecting people to function under high stress conditions. This means that complex systems that are only used during emergency conditions are likely to be less effective than simple easy to use systems and methods. Plan that the system may be implemented months after training programs were conducted. Simple directions and easy to use systems are a must. Remember, keeping it simple helps assure success.

Visual 11: <u>Methods</u>

Voice

- Most common method
- Radio, cell phone, landline

Issues

- Data loss in translation
- Time consuming
- May tie up communications channels

Note:

Voice is the most common method of communication. This can use radios, cell phones, or even landlines. However voice communications are not perfect. There can be translation issues between the person transmitting the data and the person receiving. Voice communications can be time consuming, particularly if long narratives are involved. And finally, voice communications may tie up communications channels and interfere with more important messaging.

Visual 12: <u>Methods</u>

Fax

- Available at larger fixed sites
- Usually dependent on landlines

Issues

- Requires fixed equipment
- Subject to connection issues
- Not readily available from mobile operations

Note:

Fax is another communications system. Forms and data can be effectively communicated by fax, but usually fax machines are only available at larger fixed sites and fax machines are usually dependent on the use of landline telephones. Fax machines are subject to user errors (is it transmitted face up or face down?) and is subject to connection issues when circuits are crowded. Finally fax machines are generally not available from mobile locations.

Visual 13: Methods

E-mail

- Message will usually get through, eventually
- Information translation excellent

Issues

- Requires internet connectivity
- Requires electronic equipment
- Requires monitoring on receiving end

Note:

E-mail can be effective communications tool in an emergency. Computer systems will keep "pinging" networks to get the message through even under highly congested conditions, but the time factor for receipt of the message may be highly variable. Since e-mail uses written communications, information translation is excellent. However e-mail requires internet connectivity which may be an issue. It also requires computers and other forms of electronic equipment that may be battery dependent. Finally e-mail traffic requires that the receiver monitor message traffic.

Visual 14: <u>Methods</u>

Data Compression

- Very effective if available
- Much more reliable than e-mail

Issues

- Requires equipment
- Certain level of receiver training required
- Software dependent

Note:

Data compression methods are usually highly reliable and portable. Unlike systems like e-mail that transmit the form and data together, compression systems only transmit the recorded data thus reducing the total transmission package to a fraction. Compression systems usually require a higher level of skill to either set up the system or at times to use it. These systems are also software dependent and unless all users have the appropriate software, translation issues are likely.

Visual 15: Training and Use

System must be

- Self evident
- Provide reference instructions
- Be easy to handle
- Require minimal training

Note:

Whatever system is developed and used, these are some things to remember. First, the system that is developed must be user friendly and as self-evident and explanatory as possible. Reference materials on the use of the system should always be provided. If these concepts are followed, the system should be easy to handle and require minimal training.

Visual 16: Example Form

- Easy to use layout
- Identified lines and boxes for easy transmission.
- Formats available:
 - Paper
 - Electronic
 - Fax
 - Text Only
- Data entry self explanatory

Health Care Facility Report Operational Period:		Incident:		Reporting Unit: Planning		Form: RNA - 003/Rev 07	
		Dat	Date/Time			Prepared by:	
Task/Assignment Number/Name:				Assigned		Opportunistic	
RNA Team ID:				Team Contact Method & Number:			
1. Report Type:	A. Initial B. Foll		-up	C. Final			
2. Survey Method:	A. Aircraft B. Winds		hield	C. Onsite D. Phone/Radio E. Fax			
3. Location:	A. Latitude :			B. Longitude :			
4. Contact Name:				Title:			
5. Street Address:				City:			
6. Facility Type	A. Hospital - General		B. Hospital – Specialty Only		Only	C. Hospital – Veteran's	
	D. Hospital – Mental Only		E. Hospital - Other			F. Day Surgery Center	
	G. Hospice		H. Dialysis Unit			L Extended Care Facility	
	J. Medical Clinic		K. Other			L. Unknown	
7. Bed Capacity	□ A <50		B. 51-100			C. 101-200	
	D. 201-400		E. 401-600			□ F. >601	
	G. Not Applicable		H. Unknown				
8. Operational Status	A. Fully Operational		B. Degraded Major Surgical Capability		gical	C. Degraded Minor Surgica Capability	
	D. Degraded Medical Imaging Capability		E. Degraded Radiology Capability			F. Degraded Emergency Room Capability	
	G. Degraded Pharmacy Capability		H. Degraded Intensive Care Capability		Care	L Degraded Food Service Capability	
	J. Degraded General Patient Care Capability		K. Unknown				
9. Other like Facilities in Jurisdiction	A. None		B. 1-3 Undamaged			C. 4-10+ Undamaged	
	D. 1-3 Damaged		E. 4-10+ Damaged			F. 1-3 Status Unknown	
	G. 4-10+ Status Unknown		H. All Info Unknown				
10. Service Area / Community Population	A. <2,500		B. 2,501-5,000			C. 5,001-10,000	
	D. 10,001-25,000		E. 25,001-50,000			F. 50,001-100,000	
	G. 100,001-150,000		H. 150,001-200,000			L 200,001-500,000	
	J. 500,001-1,000,000		□ K. >1,000,001			L. Unknown	
11. Community Impacts	A. No Impact on Community		B. Minor Impact			C. Moderate Impact	
	D. Major Impact		E. Unknown				
12. Current External Hazards	A. None		B. Urban/Structural Fire			C. Wildfire	
	D. Flash Flooding		E. Riverine Flooding			F. Coastal/Tidal/Surge Floo	
	G. Landslides		H. Sinkhole/Subsidence			L Tsunami	
	J. Hazardous Materials		K. Volcanic Ash			L Pyroclastic Flows	
	M. Aftershocks		N. Civil Disturbance			O. Adjacent Structure Collaps	
	P. Snow/lce		Q. High winds/Hail			R. Radiation Hazards	
	S. Chemical Hazards		T. Biological Hazards			U. Unknown	

Note:

This is an example of a data collection.

Note that the system is laid out so that each data entry can be easily identified and transmitted. For example, the voice data transmission on the bed capacity of the facility would be read as 7-B for a facility with 300 beds. This allows for easy, quick and error free transmission and recording of data.

The data can be obtained and transmitted by a variety of means. It can be collected in paper format, submitted through electronic means via email, faxed to a facility for completion or transmitted by fax to the EOC or other site for analysis, or transmitted in a data compressed format.

Note: This form was created using Adobe Acrobat.

The data entry is self-explanatory and instructions are provided at the end of the document. Finally the form may be printed on 11x17 paper to create a single document that easy to handle and avoids lost pages.

Visual 17: <u>Review</u>

At the end of this unit participants will be able to:

- Describe the importance of planning for data collection
- Describe the importance of redundant data transmission systems and means

Visual 18: And now...

Take a break!

Unit 5: Analysis of Data
Visual 1: Rapid Needs Assessment

Analysis of Data

Visual 2: Objectives

At the end of this unit participants will be able to:

- Describe the importance of analyzing and reviewing data
- Describe additional data sources available to support analysis

Visual 3: Collection

All data should be collected at a central point

- Emergency Operations Center (EOC)
- 911 Center
- Incident Command Post
- Other

Note:

All data should be collected and analyzed at one point. This simplifies the transmission of data and also eliminates the problem of bits and pieces of information floating about. In most communities, the Emergency Operating Center is the focal point for data collection. If the EOC is operating under the incident command system, this data should be routed to the Planning Section for processing and analysis. In some communities, the 911 center is the data reception and analysis point, and in larger operations, the Incident Command Post may also be a reception point.

Visual 4: <u>Three Phases of Analysis</u>

- 1. Evident
- 2. Geographic
- 3. In-depth Review

Note:

Analysis of rapid needs assessment data must be quick and succinct. Therefore, highly detailed analytical procedures are not called for. Instead a simplified analysis is performed that involves three processes. These may be used together or individually. The three phases are evident, geographic and in-depth review. We will look at each of these in the upcoming visuals.

Visual 5: <u>Evident</u>

Problems are obvious:

• People trapped on rooftops after flooding

Little or no analysis required, however...

- Other sources of compounding information
- Flood waters are rapidly rising

Information forwarded to Operations Section for actions to alleviate situation.

Analysis should not delay lifesaving response!

Note:

In evident analysis, the problems are obvious and do not require in depth study. For example, people who are trapped on rooftops after flooding are clearly in need of live saving activities. However, even though the initial reports are obvious, other information can be added into the mix to provide more accurate situational awareness. For example, by combining a weather report that shows that flood waters are rapidly rising adds more information that clearly shows the immediacy factor of the life saving efforts that are required. As with all information on rapid needs assessment, reports and findings such as these should be forwarded immediately to the Operations Section for emergency response and other actions to alleviate the situation. Remember, do not delay emergency reports of any kind for analysis or further interpretation.

Visual 6: <u>Geographic</u>

Problems and issues plotted on map(s)

- Pockets of problem areas become evident
- Additional threats or problems may be anticipated
- Transportation bottlenecks, etc.
- Speed is of the essence

Do not spend significant time on electronic mapping systems when pen and ink will do!

Note:

Geographic analysis can quickly produce good results. Pockets of problem areas, damage paths, and the like can become evident when they are plotted on a map or chart. Additionally, other problem areas can be anticipated or sent out for assessment. Transportation bottlenecks may be noted when information is plotted on a map. When performing geographic analysis like all rapid needs assessments, speed of the essence. While electronically produced geospatial information products look great, they take time to produce that may not be available in rapidly evolving events. You should be prepared to use simplified processes such as base maps, acetate overlays and marking pens and pencils to record data quickly to illustrate the information. Geographic analysis can be combined with evident analysis to provide a synergistic output of greater value.

Visual 7: <u>In-Depth Review</u>

Performed to get value added intelligence from data

- May require special skills
- Does not have to be performed locally
- Anticipates future problems
- Allows for placement of resources
- Allows for preemptive actions to prevent problems.
- Uses two previous methods as basis

Note:

In depth reviews take the most time and talent to produce. A good in depth analysis can provide significant amounts of intelligence that can support and assist decision-making efforts. Because of the special skills occasionally required to perform in depth analysis, it may not be locally produced, but may come from support centers operated by the State or other agencies miles away. In depth analysis looks at problems that have seeded themselves in the current event but have not developed. This analysis allows response planning to take place to either mitigate the problems or respond to them effectively. For example, earlier we used the example of the hospital that lost power and was operating on generator. However, the generator did not provide backup power to the ventilation system. If this facility is located in a hot climate, in as little as 36 hours it may become uninhabitable. The in depth analysis would look at how long the site could remain open and viable under these compromised conditions and the Operations Section could look at options such as restringing power lines, bringing in emergency generators, or evacuating the facility and its patients in an orderly fashion.

Visual 8: Additional Needs

Analysis may produce additional data needs.

- Reshuffle existing priorities
- Ad hoc assignments
- Additional data incorporation.

Note:

When you are performing analytical tasks, you may find that you need or would like additional data. These additional needs can be met by reshuffling existing priorities for assessment, making ad hoc assignments to collect the needed information, or obtaining data from other sources that are readily available to incorporate into the process, such as data from the National Weather Service. Remember, don't get trapped by analysis paralysis. In many emergencies good enough is best you can get.

Visual 9: Additional Data

Use data from *all* sources.

- Real time media reporting can support analysis activities.
 - While watching a live TV newscast, you witness a building collapse.
- 911 and other communications
- Reports from incoming staff

Note:

In addition to the field teams collecting rapid needs assessments, data can be obtained from a variety of sources and effectively used. With the deluge of media that accompanies may disasters and emergency events, live broadcasts from the scene can be a good source of data. Also reports coming in from 911 centers and even reports from staff reporting to work can be a good source of data.

Visual 10: <u>Activity 4</u>

- Work in groups
- Select new leader/spokesperson
- List other sources of data which exist in your community
- How would you access these sources
- How reliable are they?

Visual 11: <u>Activity 4</u>

Report Out Time!

Visual 12: <u>Review</u>

At the end of this unit participants will be able to:

- Describe the importance of analyzing and reviewing data
- Describe additional data sources available to support analysis

Visual 13: And now...

Take a 10 minute break!

Unit 6: Training and Exercises

Visual 1: Rapid Needs Assessment

Training and Exercises

Visual 2: Objectives

At the end of this unit participants will be able to:

- Describe the various methods of training that can be used to support the program.
- Describe how rapid needs assessment plans and actions can be exercised in the community.

Visual 3: <u>Training</u>

Training is an essential component

- Personnel must be trained to do their jobs
- Retraining must be performed periodically
- Exercises support training, but do not replace it.

Note:

Training is an essential component of the planning an implementation process. Since rapid needs assessment procedures may not be used all that often, training takes on greater importance to ensure that the response will be effective and timely. All personnel, whether they are field assessment teams or analysis staff must be trained to do their jobs. And don't forget that after the initial training, refresher training will be required to keep their skill sets up and current. Exercises can support the maintenance of skill sets, but do not replace the need for a good training and education program.

Visual 4: <u>Training Requirements</u>

- Plan implementation
- Assessment process
- Communications and equipment use and protocols
- Analysis procedures

Note:

These are a few of the critical training requirements. Instruction will be needed on how the plan is to be implemented and how the overall assessment process will be incorporated into the emergency response. What communications equipment will be used and with what protocols is an important training item. How will analysis be performed and how will the information be shared is another important training requirement.

Visual 5: <u>Audiences</u>

There is no one set of training activities that will meet the needs of all audiences Training programs must be flexible

Note:

When designing a training program, remember that one size does not fit all. What works well with one group may be a total failure with another group. Training programs must be flexible to meet the needs of the audiences.

Visual 6: <u>Common Training Options</u>

- Briefings
- Classroom sessions
- Hands on sessions
- Refresher sessions

Note:

These are some common training options used for rapid needs assessment instruction. Each one will be reviewed on the following visuals.

Visual 7: Briefings

Briefings

- Shift change, etc.
- Must be broken down into sound bites
- Multi step or sequential offerings may be required

Note:

Briefings are quick and dirty mini-training programs. They are often used when time is short and a lot of information needs to be presented in a tight schedule. Briefings may be packaged into something that can be presented during shift changes or staff rotations. Since time for these briefing is short, a good training package will be broken down into sound bites that hit on the key aspects of the training program. Briefings may require sequential offerings or multi-step presentations.

Visual 8: <u>Classroom Sessions</u>

- More formalized training
- Should evaluate progress
 - Identify student progress
 - Problems with course materials
 - Problems with instruction
 - Problems with procedures or plans
- May be in-person or distance based

Note:

Classroom sessions are more formalized and traditional presentations. One issue that occasionally raises its head is that classroom sessions may not be any more effective briefings. A good classroom session however has a number of advantages over a briefing in that it can identify and measure participant progress as well as identifying issues with instructional delivery, materials or even the procedures or plans themselves. Remember that using modern technology, classroom sessions do not have to be in person and may use distance learning techniques.

Visual 9: <u>Hands on Sessions</u>

- Focus on actually performing and demonstrating skill sets.
- Analysis
- Use of critical thinking skills
- Requires small instructor to student ratio

Note:

Hands on sessions are typically doing sessions. They can be combined with classroom or other training means, but since the focus is on production of simulated items or products, they use the critical thinking skills of the participants. Monitoring hands on sessions requires a small instructor to participant ratio to assure that participants are getting the support they require.

Visual 10: <u>Refresher</u>

Refresher training is essential to keep knowledge and skill sets high.

- Quizzes or questionnaire
- Mini-sessions/Bulletins
- Incorporate exercises
- Actual events

Note:

Refresher training does not have to be repeats of classroom or briefing sessions. Mind joggers such as quizzes or questionnaires can be used to assess the current level of knowledge. Don't forget using motivational techniques that can include rewards for those with the highest scores. Simple one page readings or bulletins can be used to provide refresher training. Mini sessions or previously provided training can also be used. And if exercises are conducted, rapid needs assessment scenarios can be included in the program to review and refresh skills. And, of course, real life events are a great source of refresher training.

Visual 11: <u>Activity 5</u>

- Work in groups
- Select new leader/spokesperson
- For each group listed below identify which of the previous four methods of training will be used to make each group aware of new rapid needs assessment requirements
 - Public Officials
 - EOC Staff
 - Data Collection Staff

Visual 12: <u>Activity 5</u>

Report Out Time!

Visual 13: <u>Exercise Categories</u>

The Department of Homeland Security Exercise Program has two exercise categories.

- Discussion based familiarize participants with or develop new plans, procedures, policies, and agreements
- Operations based validate plans, policies, agreements, and procedures

Note:

The Department of Homeland Security recognizes to exercise category types. These are Discussion Based exercises that are designed to familiarize participants with or develop new plans, procedures, policies, and agreements and Operations Based Exercises that are designed to validate plans, policies and procedures.

Visual 14: Discussion Based

- Seminar Informal discussion designed to orient participants to new plans or procedures.
- Workshop Resembles a seminar, but is used to build specific products, such as draft plans or policies.

Note:

In the category of discussion based exercises, there are four sub-type exercises. The first type of discussion based exercise is the seminar. This is an informal discussion and review of new plans, policies and procedures and it is designed to acquaint personnel to new or revised documents. The seminar is a learning type of exercise that is an important first step as part of the exercise process.

The Workshop is another type of discussion based exercise. It resembles a seminar, but is designed to be a working group that builds or create specific products, such as draft plans, policies, procedures, job aids, and agreements, etc.

Visual 15: Discussion Based

- Tabletop Involves key personnel in simulated scenarios in an informal setting. Used to assess plans and procedures
- Game Simulations that involves two or more teams in a competitive environment to assess plans and procedures under a set of rules to depict an actual or real life situation

Note:

Tabletop exercises involve key personnel that operate in a simulated scenario in an informal setting. Tabletop exercises work through the scenario using existing plans and procedures and is designed to assess and evaluate the adequacy of those documents.

Games are a form of exercise that is widely used in the military. They involve simulations with two or more teams in a competitive environment. Working under a set of specified ground rules, they apply problem solving skills to depict and actual or real life situation.

Visual 16: Operations Based

- Drill Coordinated supervised activity used to test a single specific operation or function within a single entity.
- Functional Exercises validate and evaluate capabilities, multiple functions or interdependent groups of functions, such as EOCs. This type of exercise is conducted in a realistic, real-time environment; however, movement of personnel and equipment is simulated.

Note:

Operations based exercises are more complex than discussions. To be successful, they require greater lead times, more planning, and effective administration to be successful. Drills are the smallest of the operational exercises. These are supervised activities used to test a single specific operation or function within a single entity.

Functional exercises validate and evaluate capabilities, multiple functions or interdependent groups of functions, such as EOCs. This type of exercise is conducted in a realistic, real-time environment; however, movement of personnel and equipment is simulated.

Visual 17: Operations Based

Full-Scale – The largest and most complex of all exercises and requires the most planning and preparation to successfully conduct. Exercises all aspects of the response from command and control functions to boots on the ground response activities of multi-agency participants.

Note:

The largest and most complex of the operations based exercises are Full Scale. These are generally capstone events that are the finale of the exercise program and follow many other discussion and operational exercises that build up these grand events. Full scale exercises test all elements of a plan and response system.

Visual 18: <u>Activity 6</u>

- Work in groups identified on the next visual
- Select new leader/spokesperson
- How would your group incorporate rapid needs assessment planning into the exercise type you have been assigned?

Note:

Have each group select a new leader or spokesperson and discuss the items listed on the visual. If easel pads are available, they can be used to capture the group's responses and support the report out process.

Visual 19: <u>Activity 6</u>

Group 1 – Seminar

- Group 2 Workshop
- Group 3 Tabletop
- Group 4 Game
- Group 5 Drill
- Group 6 Functional
- Group 7 Full Scale

Visual 20: <u>Activity 6</u>

Report Out Time!

Note:

Give each group approximately 5 minutes to report out their findings and take questions either from the instructor or other members of the group. The answers given will vary depending on the communities represented. Answers will be variable and the instructor should look for and support similarities in the reports.

Visual 21: <u>Review</u>

At the end of this unit participants will be able to:

- Describe the various methods of training that can be used to support the program.
- Describe how rapid needs assessment plans and actions can be exercised in the community.

Visual 22: And now...

Take a 10 minute break!

Unit 7: Final Exam and Wrap Up

Visual 1: Rapid Needs Assessment

Final Exam and Wrap Up

Visual 2: Objectives

At the end of this unit participants will be able to:

• Demonstrate their knowledge by passing a written exam.

Visual 3: Final Notes

- Complete your evaluations
- Clean up your space dispose of any trash
- After you have completed the exam, please be quiet until everyone is done

Visual 4: Examination

- The exam is closed book
- This is an individual effort
- A score of 70% is required for passing
- Print your name and answers neatly on the answer sheet
- Turn in your test and answer sheet when completed
- Remain quietly at your seats

Visual 5: <u>Certificates</u>

- Please bring your evaluation to the instructor when your name is called to receive your certificate
- Have a safe trip home

Visual 6: <u>Thank You</u>

Thank you for coming to this training.