Vulnerable Populations: Putting the Pieces Together

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Objectives

- Describe the theoretical basis for the vulnerable populations toolkit
- Apply strategies for identification and planning
- Identify methods for data collection and utilization
How can you get very far,  
If you don’t know **Who** you are?  
How can you do what you ought,  
If you don’t know **What** you’ve got?  
And if you don’t know **Which** to do,  
Of all the things in front of you,  
Then what you’ll have when you are through  
Is just a mess without a clue.  

The Tao of Pooh
Lessons Taught So Far....

- Vulnerable Populations
  - Not just in shelters
  - Need to know the Community BEFORE event
  - Need DATA!!!!
  - Event can effect vulnerability
Lessons Taught So Far.....

- **Planning**
  - Needs to integrate specific at-risk population needs
  - Identify agencies’ ability to support served populations and capacity gaps
  - Develop contingencies for addressing gaps

- **Response**
  - Communication
Theoretical Foundation

- Betty Neuman’s Systems Model
- Flaskerud & Winslow’s Vulnerable Populations Conceptual Model
Program: Vulnerable Populations  Logic Model

Situation: National planning guidelines require states address the needs of vulnerable populations through all phases of preparedness and response. While Florida has made much progress in preparedness planning, gaps remain in development of a systematic planning process for identification and addressing the needs of vulnerable populations.

Inputs
- Populations at risk
- Stakeholders
- Data
- Assessment tools
- Planning requirements
- Regulatory requirements
- Evidence-based research
- Information Technology Support
- After action reports

Activities
Define and quantify vulnerable population groups
Identify critical needs of population groups for sustainment during emergency
Assess individual and agency support capacity Identify gaps in support capacity
Integrate vulnerable populations’ needs into all emergency plans
Develop GIS tools (maps, etc.) to support planning and response
Define effective communication strategies for reaching vulnerable populations

Outputs
Vulnerable populations

Participation

Short

Medium

Long

Determine local capacity to support vulnerable populations’ critical needs during disasters
Disseminate consistent information on individual emergency planning to vulnerable population groups
Evaluate effectiveness of assessment tools and utilization
Utilize GIS capacity to depict identified population concentrations
Aware of and able to utilize available resources to develop individual emergency plans and supply kits

State and local emergency response plans will reflect specific objectives for vulnerable populations
Develop web-accessible GIS interactive application for planning and response utilization
Individual emergency preparedness plans are effective for reducing personal risk and utilize response system resources effectively

External Factors
- Competing health & medical priorities
- Limited fiscal resources to support planning
- Inconsistent definitions of vulnerable populations
- Partner agencies may not engage

Assumptions
- Vulnerable populations are at greater risks for adverse health outcomes during disasters
- Data on vulnerable populations can be obtained and defined to the county level
- Capacity to support vulnerable populations during disasters will vary by county
DEFINING THE POPULATIONS
Starting Point

- Lack of consensus on definition or name
  - Special Needs
  - Vulnerable
  - At-Risk

- Vulnerability can be static or event specific

- Fundamental Expectation—planning must address those most at-risk for an adverse outcome
Phase One

- Focused on response basics
  - Modified Maslow
- Enhanced individual preparedness efforts for vulnerable populations
- Analysis methodology developed
- Partner collaboration increased
Public Health Response Basics-Air

**Why Important?**
Air is critical for life function. During most incidents, the health and medical priority related to air is to ensure that oxygen is available and sustained for oxygen dependent individuals.

**What Is Needed??**
Preparedness Activities:
- Identify the number of oxygen suppliers in the county. If none, determine who supplies oxygen to the county.
- Collect data quarterly on the number of individuals in the community on regular oxygen refills.
- Identify how many respiratory therapists are in the county.
- Special Needs Shelter Activation Planning:
  - Identify how many respiratory therapists can be available to assist in oxygen management in the shelter.
  - Identify person(s) or ESF responsible for providing oxygen canisters to shelter.
  - Distribution plan for oxygen in the shelter (individual cylinders or bulk cylinders with multi-port lines)
    - For multi-port lines, need schematic layout of cylinder placement and patients requiring oxygen.
- Oxygen Concentrators
  - Require continuous power source.
  - Need a schematic layout for concentrator patients in relationship to electrical outlets.
  - Need to know the number of multi-prong power strips needed to meet concentrator demand.
  - If utilizing regular power, need to know the number of outlets available and breaker capacity.
- Alternate Power Supply (ie. Generator)
  - If alternate power supply is not onsite, arrange for delivery to Special Needs Shelter within two hours of opening.
  - Ensure adequate power cords and generator capacity is suitable to meet oxygen concentrator demands.
  - Provide for a minimum of 48 hours of fuel plus a defined refill schedule based on tested consumption rate of the generator.
  - Identify personnel capable of refueling the generator.

Post Impact Activities:
- Identify areas in the community for oxygen tank refill or replacement tank pickup for individuals who are able to stay in homes. Consider using established POD sites.
- If extended sheltering is required, use Special Needs Shelter to evaluate patients presenting in need of oxygen.
- Monitor hospital oxygen capability and potential needs.
Operational Model

- Set of questions focused on:
  - People
  - System
  - Responder/Provider

- Provides data to drive local tactical planning and state coordination/support

- GIS Map Stories

- Contingency Planning
People

- Who is the at-risk population?
- Where is this population located?
- What is the type and number of health care services needed?
- Where does this population seek healthcare services?
System

• What healthcare system components support this population’s ability to maintain health status?
• Where are the healthcare service delivery points located?
• What is the healthcare system component delivery capacity?
• What are the support services needed to facilitate healthcare service delivery?
Provider/Responder

- What type of provider is needed to deliver healthcare services?
- How many are needed?
- What is the availability of the needed providers?
Phase Two

- Vulnerability Profile
- Develop GIS mapping capacity for data
- Develop web-accessible tool kit for counties
- Evaluate the tools
Vulnerable Populations Tool Kit

- Profiles
- Assessment Tools
- Communication Resource Guide
- Population Fact Sheets
- Resources

Vulnerable Populations Tool Kit
Vulnerable Population Profile
Bay County Florida, 2010-11

Florida Region 1 Population by Age Groups, 2010

132,243, 13%
21,656, 2%
858,608, 85%

Demographic Indicators

2010 Population Estimate: 170,367
Percent of Population 65+: 16%
65-84 Population: 23,572
85+ Population: 3,427
Live Births (3 year count): 6,863

Economic Indicators

Population Below Poverty: 22,224
Food Stamps Recipients: 31,009
WIC Eligible: 6,143
Average Monthly Medicaid Enrollment: 29,533
Uninsured (Under 65): 20,166

Vulnerability Indicators

Population with 1 or more disability: 11,853
Elders Living Alone: 9,438
Estimated Oxygen Dependent Clients: 2,322
Children’s Medical Services Clients: 1,214
Medical Foster Care Children: 12
Developmentally Disabled: 719
Dialysis Clients: 198
Percent of Population with 1 or more disability: 7%
Probably Alzheimer’s Cases: 3,688
Brain and/or Spinal Cord Injury Clients: 9
Children in Foster Care: 153
Seriously Emotionally Disturbed Children: 1,414
Seriously Mentally Ill Adults: 3,607
Estimated Homeless: 378

Data Sources:
1. Department of Health (DOH), Office of Planning, Data Analysis, and Evaluation
2. US Census Data
3. Florida End Stage Renal Disease Network
4. Agency for Persons with Disabilities
5. DOH Brain and Spinal Cord Injury Program
6. DOH Division of Children’s Medical Services
7. Dept. of Children and Families
8. Dept. of Elder Affairs
Data Resources

- Federal Data Sets
  - US Census
  - CMS (Medicare/Medicaid)
  - National Weather Service

- State Data Sets
  - Vital Statistics
  - Other State Agencies- DCF, APD, Elder Affairs
  - Health Care Facility Licensure
  - County/City Profiles
  - Environmental Hazards

- Organization Data Sets
  - End Stage Renal Disease Network
Data Management

- Zip code Level
- Aggregate, no individual identifiers
- Available for every county
- Point in time
- Refresh every two years
Advantages

- Systematic approach to identification
- Better able to plan for resource needs
- Planning & Response Utility
Future Needs

- Evaluation
- Dig into the “big buckets” of vulnerable populations
- Mine for more data!
Questions??
Contact Information

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