MHPC

METROLINA HEALTHCARE PREPAREDNESS COALITION

ASSESSMENT OF VULNERABILITY OF REGIONAL HEALTHCARE CAPABILITY

Spring 2016

www.MetrolinaPreparedness.org

Metrolina Healthcare Preparedness Coalition
Assessment of Vulnerability of the Regional Healthcare Capability

Project Overview

The Metrolina Healthcare Preparedness Coalition (MHPC) initiated this project in order to better understand the relationship between the hazard and vulnerability assessments (HVAs) conducted by the MHPC partners and the risks that threaten the region's ability to continue the provision of healthcare. Each healthcare partner and county emergency management agency regularly conducts an HVA or Risk Assessment focused on the potential impacts to that local facility or community and the operations therein. This project is a foundational step for understanding the events and circumstances that may reduce the capability and capacity of healthcare provision throughout the MHPC region. All Clear Emergency Management Group, LLC (All Clear) was retained to support the MHPC in the facilitation of this project.

Conditions Creating the Highest Risk to Regional Healthcare Capability

A list of "top hazards" served as a starting point for participants to conduct a root cause analysis and understand the elements that were consistent among hazards or that contributed to the hazard being a part of the "top hazards" list. This examination of the top hazards led the group to identify five areas that significantly contributed to the vulnerability that the hazards present to the region's healthcare capability. These conditions were not prioritized during the workshop but a root-cause analysis was performed and mitigation strategies discussed. Further explanation of how these hazards were derived can be found below.

Condition	Issue
Communications	Issues with current communications technology and plans are present.
Human Capital	Operating with limited staffing and elevated census. Will impact the ability to manage a patient surge.
Evacuation	Evacuation plans are inadequate and do not integrate regional partners.
Loss of Regional Infrastructure	Current regional capabilities are unclear and facilities are not completely aware of the impact one facility issue can have on the entire region.
Inclement Weather	Creates widespread challenges with all partners that include staffing, transportation, and resource issues.

Methodology

The assessment of the vulnerability of regional healthcare capability was developed in a multi-faceted approach. The initial step was for the MHPC to gather data about facility vulnerabilities. To accomplish this the MHPC collected facility HVAs and Risk Assessments from regional partners. Prior to the collection of HVAs, the MHPC participated in the HVA development process for the previous two years with the majority of the regional hospitals. This participation allowed for greater insight into the internal processes of development.

As facility data was collected, MHPC staff met with 15 facilities during meetings when the facilities were conducting annual HVA review. The MHPC staff asked standardized questions to ascertain a facility's perception of local and regional gaps in healthcare capability. This information was provided to All Clear prior to the workshops and was summarized in preparation for the workshop. The vulnerabilities impacting facilities and the region were compiled so that each could be analyzed during the workshop.

The workshop was structured so that the facility and regional healthcare vulnerabilities could be reviewed and validated. Participants at the workshop included emergency management representatives from numerous hospitals, EMS agencies, Continuing Care facilities, and local Public Health jurisdictions.

Participants examined the relationship between facility and regional vulnerabilities. Through workshop discussion a list of the highest risk regional hazards was compiled. This list of hazards contained those that were most probable, were perceived to have the highest impact on the regional healthcare capability, or demonstrated the lowest level of mitigation and preparedness.

The workshop process was developed to progressively analyze vulnerability. First, participants began by reviewing and validating the most common facility vulnerabilities. Second, regional healthcare vulnerabilities were discussed. Third, an analysis of facility and regional vulnerabilities provided a foundation for discussion about the issues, events, conditions and situations that comprise to the regional healthcare vulnerability.

As the lists of facility and regional vulnerabilities were analyzed several events and conditions were identified as those that are most likely to impact the regional healthcare capability. A list of 12 issues was identified and further analyzed to determine common themes or connections among the 12. From the list of 12 the participants selected five events and conditions for which to conduct a root cause analysis and create mitigation strategies.

The list of five can be found in the second section of this document. The analysis of these can be found below in the chart titled "Analysis of Conditions."

Events and conditions identified as likely to impact regional healthcare capability

Significant weather (+4 or ¼ inch of flooding, dam failure)
Bed capacity
Drought
Highly Infectious disease
Supply resources, management and distribution
Communications and interoperability (risk communications and operational communication) Regional mass notification
Staffing and the resource of personnel
Ability to provide for staff and visitors
Power grid
Extraordinary event
Regional evacuation coordination and agreements
Regional coordination, agreements, understanding one another's roles and expectations in an emergency

The following sections provide detail about the root-cause analysis and mitigation strategies of the identified top five events and conditions likely to impact regional healthcare capability.

Analysis of Conditions			
Condition	**Current Status**	**Issues**	**Mitigation**
Communications			
Operational	MHPC has multiple communication systems (SMARTT, WebEOC, VIPER 800, NCMCN, Email, Telephone, Internal systems of Coalition partners).	None of the systems meet all of the MHPC needs and interoperability can be difficult.	Work with State and partners to develop more effective communication systems.
			Identify a better resource for regional mass communication that includes a plan, process, and technology.
		Not all partners understand the current systems available.	Provide training to appropriate personnel.
	Communication difficult within some facilities	Radios may not work in all areas of the hospital is one example.	Work with partners to develop and test plans for internal communication.
Coordination	Communication amongst partners is insufficient	"Silo Effect": Typically planning has occurred internally and is not shared externally.	Ensure that plans are written and that each agen has a basic understanding of one another's plans.
			Develop and distribute contact information for regional partners to include the roles and responsibilities of each.
		Plans do not exist to demonstrate how and what to communicate to partners either regionally or within the MHPC.	Develop a process to utilize the MHPC to disseminate information regionally (serve as a liaison). - Consider developing a brief hospital/healthcare Liaison Officer course
			Create a situational awareness tool or process for the region that will allow healthcare partners to more quickly develop an understanding of issues

			and impacts concerning the regional healthcare capability. - Include method to share current status ar availability - Include method to request needed resources
			Create a regional template of "question/trigger, answer, authority" for sharing information about facility impact events.
			Include the Telehealth/ Physician Connection Lin from the regional hospitals in the development o plans and processes.
	There is no written agreement or process developed for the protection of proprietary information from regional partners.	Information released must have senior leader approval. This delays and often prevents notification.	Develop an agreement for sharing information ar list of information that can be shared during an emergency. The agreement should detail necessary agreements, plans, pre-scripted messages, or go-kits.
			Garner senior leadership buy-in/support for communication and coordination of certain information.

Condition	Current Status	Issues	Mitigation
Human Capital	All partners are operating with minimal staffing required to conduct business.	Limited staff results in limited ability to receive patient surge.	Explore the use of regional hospitals and EMS agencies, ServNC and SMAT and NDMS for certain events. Create triggers for activation of each.
	The healthcare worker resource is potentially widely impacted by a variety of events. The availability of healthcare workers can be impacted by physical	Plans to support volunteers within healthcare facilities are lacking or untested.	Explore the development of an MOU amongst regional hospitals to share staff. Ensure that evacuation plans include sending the staff current caring for the patient to the receiving facility.

	fatigue, psychological fatigue, a shortage of licensed or skilled workers, the need for healthcare workers to care for their families, a shortage of food or supplies needed to sustain workers, or a shortage of physical space to house or support the workers.		
			Encourage internal planning for utilization of volunteers and visiting staff.
			Consider developing a workgroup among systems and facilities for establishing primary source verification testing, determining the mutual expectation, and establishing a mechanism to enhance regional collaboration.
			Explore laws and regulations for relaxing licensure and applying those exceptions.

Event	Current Status	Issues	Mitigation
Evacuation	There is a lack of regional healthcare evacuation coordination process that includes authority and addresses legal concerns.		Create an evacuation workgroup to address the need for a regional evacuation plan or process. Th process should address the issues listed as well as how to send staff or resources (medical equipmen and medications) with a patient and manage financial implications.
			Share event reviews and best practices to educate senior leadership. Key points to share include: - How quickly the event unfolded - Details about what happened

			- The downstream impact on other facilities and agencies - Succession planning and lines of authority
	Family reunification plans are inadequate. Family reunification will be labor intensive and will require cooperation across the region.	Currently, plans are developed without coordination among facilities.	Family reunification plans should be reviewed and integrated across the MHPC.
	Evacuation of a facility creates numerous issues that include transport of staff, specialty patients, determining routes for transport, and the physical ability of staff to move patients.	Plans that involve hospital, EMS, healthcare coalition, fire, and emergency management have not been developed. Most plans that are in existence involve only hospitals.	
	When an evacuation occurs there is a strong likelihood that all other facilities and resources are also busy.	Most healthcare facilities are occupied to capacity. Often it is a regional event that would cause an evacuation. This would mean that the receiving facility may have fewer beds available.	
	Coordination is necessary to determine the destination or available locations as well as vehicle access in and out of the evacuating and receiving facility. Alternative care facilities may need to be activated as stopover points.	Regional Alternate Care Facility (ACF) plans have not been developed. Internal ACF plans are not complete or haven't been tested.	

	Plans for record sharing and maintaining patient privacy have not been developed or exercised		
	Regional process for patient tracking does not exist		NC OEMS has a new patient tracking tool. A plan c the process of tracking must be developed.
			Training should be conducted with appropriate personnel regarding when and how to use the patient tracking tool.
Event	**Current Status**	**Issues**	**Mitigation**
Loss of Regional Infrastructure	Lack of awareness regarding the impact of a change in capability or capacity would have on regional partners.		Provide education to improve the mutual understanding of the reliance and interaction of facilities.
	No clear process for communicating loss of regional infrastructure.	Plans not developed.	Develop regional communication plans.
	Current regional capabilities are unclear.		Conduct an assessment of essential healthcare services and the overall capacity and capability of those services. Utilize the assessment to prioritiz what needs to be addressed.

Event	**Current Status**	**Issues**	**Mitigation**
Inclement Weather	Weather events create infrastructure damage, patient surge, consume resources, and tax systems.		Ensure that healthcare partners have functional continuity of operations plans (COOP).
		Staff are widely impacted by weather. Weather events present problems for getting staff into the facility or supporting the staff, and their	Enhance preparedness for housing plans for staff, visitors and discharged patients.

		families, while staff work during a weather event.	
		Transportation for patients, staff, & public is impacted by weather.	
		Resources are difficult to get into and out of a facility. Services, such as waste disposal, are impacted.	
		Communications, utilities and services can be damaged or interrupted due to a weather event.	Create a proactive approach to communication & coordination during weather events. Ensure that trigger points are clearly defined and widely understood. This should include a communication plan and utilization of available technology like WebEOC and SMARTT.
		Regional partners are often overwhelmed during a weather event.	
		Financial loses are experienced by partners during inclement weather due to inability to open and treat patients.	

Appendix A: Participants

Hospitals	
Caromont Health	John Watts
CHS Blue Ridge	Thomas Logan
CHS Cleveland CHS Kings Mountain CHS Lincoln	Noreen Minogue
CHS Pineville CHS Union CHS Anson	Robbie Ossman
CHS Northeast	Heather Harper
CHS University	
CHS Mercy CHS Rehabilitation	Derrell Clark
Novant Health Charlotte Novant Health Matthews Novant Health Huntersville	Kip Clark Ted Aston Jeremiah Fennessy Ben Homan
Emergency Management	
Mecklenburg County	Elaney Katsafanas

EMS	
Cabarrus County EMS	Jimmy Lentz
Cleveland County EMS	Joe Lord
Gaston County EMS	Clyde Cantrell
Lincoln County EMS	Kim Green
Mecklenburg County EMS	Michael Stanford
Public Health	
Cabarrus Health Alliance	Darnell Boyd
Iredell Public Health	Sam Migit
Lincoln County Public Health	Lera Allen Kellie Harkin
Mecklenburg County Public Health	Bobby Kennedy
Union County Public Health	Emily Walmsley
Continuing Care	
CHS Continuing Care	Jill DeMuth