

Oakland County Health Division Community Integration and Collaboration

Oakland County Health Division is the lead agency in planning for a public health emergency in our community. In order to maintain on-going emergent care to the community, this Health Division has focused on collaboration within the community as a way to optimize current medical resources.

In an emergency, health care must be efficient and immediate. This often translates to the most readily assessable care at the time, which can lead directly to the hospital emergency room. People seeking immediate care and reassurance of the “worried well” will quickly overwhelm treatment capacity. Oakland County Health Division has instituted a plan, working in collaboration with local hospitals, which maintains the appropriate level of care, increases capacity and provides a model for priority assessment during an emergency.

1. Category

Oakland County Health Division had completed plans, activities and exercises to test the following areas:

- Medical surge capacity
- Emergency healthcare delivery
- Alternative care sites

2. Community Description

Oakland County Michigan covers 910 square miles and has a population of approximately 1.2 million people.

- According to the 2000 Federal Census, the population of Oakland County is 82.7% white, 10.1% black, 4.1% Asian, 2.4% Hispanic, 0.2% American Indian/Alaska native, and 0.5% other.
- Approximately 130 different languages are spoken in Oakland County.

The Oakland County Health Division is the sole public health agency in the county. However, the county is home to thirteen hospitals:

- Wm. Beaumont Hospital in Royal Oak and Troy
- Botsford General Hospital in Farmington
- Providence Hospital in Southfield and Novi
- Henry Ford Medical Center in West Bloomfield
- North Oakland Medical Center in Pontiac
- POH Medical Center in Pontiac

- St Joseph Mercy Hospital-Oakland in Pontiac
 - Crittenton Hospital in Rochester
 - Huron Valley-Sinai Hospital in Commerce Township
 - St John-Oakland Hospital in Madison Heights.
- Number of Hospitals: 13
 - Number of level 1 trauma centers: 1
 - Number of pediatric trauma centers: 1
 - Number of adult/pediatric burn centers: 0
 - Number of ICU beds: 272
 - Number of long term care facilities: 41
 - Number of mental health intake centers: 6
 - Number of mental health inpatient beds: 340

3. Planning Process

Oakland County Health Division called hospital health care providers together with public health representatives to form a workgroup to discuss and implement an emergency response plan. A basic operational philosophy was instituted universally: "In the event of an emergency, the standard of care will have to change." Hospital representatives such as Emergency Room Head Nurses and Facility Administrators were encouraged to attend weekly meetings to provide information regarding staff responsibilities and allocation and medical capability, to name a few. Memorandums of Understanding were developed by Public Health and negotiated with each hospital to share resources and staff should any devastating emergency occur.

Oakland County Health Division presented this workgroup with a plan that provided procedures for addressing hospital capacity to handle a large influx of patients. (Once a hospital reaches surge capacity, they are unable to accept new patients.) A cornerstone of this plan called for collaboration from all hospitals and community health care providers with Public Health. Based on this collaboration, the nationally recognized Modular Emergency Medical System (MEMS) was presented to and adopted by this workgroup as the model for emergency health care response in Oakland County.

Basic in the MEMS model is the understanding that to provide health care to a large amount of people during a small amount of time, requires changes in current policies and protocols. It was often difficult for hospital representatives to accept the limitations that would be placed on their ability to fully address all health needs due to inadequate resources of equipment and personnel. To the hospital personnel, it was a truly troubling to think that some patients might not receive optimal care during an emergency. As a non-primary care provider, Public Health became the change agent in

prompting hospitals to accept and embrace this startling reality of emergency care.

The subject of unilateral communications presented a stumbling block to the planning process. Communication involves a variety of technical and non-technical equipment and personnel to provide written material that can be readily delivered to the media and staff. During an emergency, mass communication through media venues will be the main source for supplying reliable and timely information. The need for providing messages in a multitude of languages and formats to meet the needs of a diverse community necessitated the use of translator and signing personnel. Staff were trained to operate communication equipment and provide on-site repair and assistance should equipment break down.

4. Narrative

After "9/11", a local business was faced with a potential Anthrax exposure through the mail system. Fifteen people faced possible exposure to Anthrax and were sent to a local emergency room. In accordance with strict procedures involving a potential Anthrax attack, the Emergency Room was unable to accept additional patients and was forced to deploy all patients to other local emergency rooms. Though the attack was confirmed false and no one was injured, this incident emphasized the need for advance planning to handle this level of emergency.

The Modular Emergency Medical System, (MEMS), is a national model designed to provide a systematic, coordinated and effective medical response to a large-scale incident where the number of casualties significantly overwhelms a community's existing medical capabilities. It establishes a framework to facilitate augmentation of local response efforts through the rapid organization of outside medical resources and available assets into two types of expandable patient care modules, the Alternate Care Center (ACC) and the Neighborhood Emergency Help Center (NEHC). The built-in flexibility accommodates multiple component modules depending on the nature and extent of the event. Components of the MEMS are Alternative Care Center (ACC) Neighborhood Emergency Health Centers (NEHC)

Alternative Care Center (ACC)

The purpose of the ACC is to provide agent specific therapy and supportive inpatient care until the local healthcare system recovers enough to absorb the extra patient load from the emergency situation.

The national MEMS model states that ACC'S are designed to treat patients who need extensive care, such as hydration or pain management. They are not designed to provide acute critical care for patients requiring ventilator assistance. Patients may be admitted to an ACC for end of life care, utilizing the hospice concept. The ACC concept also facilitates cohorting of patients with the same infectious disease or exposure.

The Health Division has identified facilities with a total bed capacity between 600 and 800 beds. Additionally, these facilities have existing food service and laundry service capabilities readily available. Since each of these facilities can be quickly converted to a 50 bed non-critical care unit, they can provide greater surge capacity for the entire healthcare system. This allows hospitals to direct their resources to patients requiring critical care. By using established standing orders, it is anticipated that non-critical care physicians, such as podiatrists or dentists, could oversee the ACC.

Neighborhood Emergency Help Centers (NEHC)

According to the national MEMS model, the Neighborhood Emergency Help Center, (NEHC), is designed to be the entry point into the medical system for casualties and asymptomatic exposed and non-exposed individuals who present for care when the MEMS is activated.

The purpose of the NEHC is to direct casualties and worried well away from the emergency departments, expand hospital capacity thereby allowing medical providers to focus their efforts and make efficient use of limited resources. It provides basic medical evaluation and triage, limited treatment to people seeking aid, distribution of limited prophylactic medications and self-help information. Medical stabilization can be performed for those needing transfer to an ACC or hospital.

The community is confident in the hospitals expertise in providing emergent care. Public health has been recognized in the community as the point of information and direction during health-related emergencies. Therefore, it is essential that the medical care community and public health work together to ensure an effective medical response during an emergency situation.

Neither the hospitals nor Oakland County Health Division have the ability to operate the MEMS model independently. Specialty skills, resources and development must be done in a joint effort. There is an understanding between the hospitals and OCHD that an ACC or NEHC will open without each

others support. The community trusts the care received at a hospital. The sites will be publicized as a joint staffed operation.

Specific hospital bed capacity will determine the number of patients a hospital is able to admit. This will then determine the location for the ACC and NEHC. Since hospitals often have offices off campus that are associated with the main complex, these are primary locations for ACC's and NEHC's because they usually have medical equipment, supplies, and monitoring capabilities onsite.

Exercise

No plan is complete until tested for operation parameters. The Health Division scheduled workgroup members for participation in a Regional exercise. The purpose of this exercise was to test response measures and identify potential gaps. Each individual hospital developed and instituted plans based on the MEMS model.

In August, 2006, Oakland County Health Division, in collaboration with St. Joseph Hospital in Pontiac, North Oakland Medical Center and Pontiac Osteopathic Hospital Medical Center, simulated a full-scale ACC and NEHC. Local entities worked together to determine if the plans, equipment, locations and design functioned accurately.

Volunteers were given scenarios to "act out". These role-playing situations allowed for staff to react and treat patients as needed. Hospital staff were primarily responsible for the critical care and ACC staff positions. Health Division staff were responsible for the non-critical and command staff positions.

Strengths and weaknesses were identified in the operations of the MEMS plan. An After Action Report (AAR), including a Corrective Action Plan, was completed after the exercise. Follow-up meetings were conducted to decide how to address the gaps or problems identified.

The exercise provided an opportunity for the hospital staff and local government officials to work together. Through this event, additional county hospitals have become more involved in the MEMS planning process. Meetings and site decisions have been completed with the other hospitals in the county.

Community collaboration is the key to responding in an emergency situation. Entities must work together to protect and care for community members. Participating in an exercise is the best way to determine if a plan will be

effective in the event of an emergency. During an exercise, gaps and weaknesses are more readily identifiable, as are problems arising from staffing, equipment and procedures. It is imperative that continual plan updates are maintained and plans are exercised to ensure accuracy and effectiveness.

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