Tab 13 – Medical Surge

Public Health Surge Capacity

Public health surge is the sudden increase of public health personnel and or capacity in order to prevent or mitigate the effects of a disaster or an emergency. An example of public health surge is the use of volunteers and non-health department city employees to establish a mass vaccination center in response to a smallpox attack.

Medical surge is the sudden increase in the capacity of the emergency medical response, transportation, and/or treatment assets in order to respond to a disaster or emergency that is expected to result in, or has resulted in, an increase in injured or ill patients. Examples of medical surge include a mass casualty incident (such as an explosion) or disease outbreaks (such as pandemic flu). Public Health and Medical surges may occur separately or simultaneously.

All Emergency Management Directors within our eight counties have Memorandums of Understanding (MOU) and Mutual Aid Agreements in place with various organizations (to include the private sector, public, city and county). BRDHD would call upon the Emergency Management Director in the respective county to obtain supplies, facilities, staff, etc. during an emergency response (see State of Kentucky Statues, in Appendix, Tab 13).

One important MOU which is in place is the Commonwealth of Kentucky's Statewide Emergency Management Mutual Aid and Assistance Agreement. This MOU helps assure that the BRDHD will have access to any needed supplies; equipment, manpower, and other needed resources.

If public health resources are needed, the BRDHD would contact the Kentucky Department for Public Health. The state would decide if public health resources could be obtained from within the state or if an Emergency Management Assistance Compact (EMAC) is required.

Planning Considerations & Assumptions

- Local Public Health Departments are staffed for their day-to-day operations and are not adequately staffed to manage large-scale public health emergencies without some staffing augmentation. Development of agreements with other city agencies, local non-governmental organizations, businesses, and volunteers, as well as regional mutual aid agreements is necessary to provide enough personnel and resources to respond in these situations
- Mutual Aid Agreements and regional planning efforts among emergency medical response agencies is needed to meet the need of any large scale medical emergency or disaster
- At present, without any increase in demand for medical treatment due to a regional emergency, most healthcare facilities are operated at, or near, capacity. "Surge" is something that occurs on a daily basis as local hospitals and treatment centers routinely tailor their capacity to meet the local community's healthcare demands.

- Major catastrophic events that result in large numbers of casualties may overwhelm the local healthcare community and may require additional resources.
- A strategic plan is needed to maximize local resources and facilitate the reception and integration of regional, State, and Federal medical assets

Incidents that may require an increase in surge capacity:

- A natural disaster that causes large numbers of injuries
- A man-made disaster (accidental or terrorism) that results in large numbers of injuries
- An evacuation of a hospital due to a natural or man-made disaster
- A major disease outbreak (such as pandemic influenza) that results in large numbers of illnesses.

Public Health Surge

Epi Rapid Response Team: Barren River District Health Department maintains a Epi Rapid Response Team (ERRT) that is available 24/7 to respond to all public health emergencies, such as communicable disease outbreaks. The size of the team depends on the situation and subject to selection by the District Director. The standing BRDHD Epi Rapid Response Team (ERRT) consists of the CD Team Nurses, Regional Epidemiologist, Environmentalists, Public Health Preparedness Planners, and Public Information Staff/GIS Specialist, at a minimum.

Barren River District Health Department Surge: In addition to the Public Health Response Team, BRDHD maintains additional capability to surge internally to respond to any emergency or disaster. Certain services or clinics may be temporarily suspended to make more personnel available for emergency response, personnel may be called off of leave or planned leave may be suspended, and normal duty hours may be extended to include evenings and/or weekends.

Recall of Health District Staff: BRDHD utilizes the ReadyOp system to rapidly contact all BRDHD employees in the event of an emergency. This electronic system is designed to contact all employees via email, text message, and telephone. All employees are required to update their contact information in the READYOP system on a quarterly basis. In the event that the READYOP system is not operational, BRDHD will utilize other forms of communications. See tab 7 and Appendices.

HHS Resources and Capabilities

HHS list all resources and capabilities available to Federal, State, and local stakeholders before, during and after public health and medical incidents. HHS Response and Recovery Resources Compendium can be accessed here: http://www.phe.gov/emergency/hhscapabilities/Pages/default.aspx and includes areas for: situational awareness, public health surveillance, medical care personnel, medical equipment and supplies, patient movement, hospital care, outpatient services, decontamination, drug safety, blood products, food safety, agriculture safety, worker

safety, substance abuse, mental health, medical information, vector control, environmental health, mortuary services, vet services, recovery, mass care, and external communications.

Public Health Surge Capacity

See Tab 13 Appendix A

Summary of Surge Responsibilities

(See Appendix-Tab 12)

National Incident Management System (NIMS)

The use of NIMS and the Incident Command System (ICS) is critical for managing all disasters and emergencies because this allows BRDHD to request and receive outside assistance and integrate external agencies seamlessly into the emergency response. Under the NIMS, incident management uses either a single Incident Command Structure (ICS) or a Unified Command Structure, as appropriate. Each employee and volunteer will be provided training on NIMS and ICS.

Alerting Systems for Public Health Surge

Health Alert Network: The READYOP system allows the BRDHD to rapidly contact and provide information to all Health District Employees. The READYOP ties all of the communications systems together (i.e. telephone, email, mobile phones, fax machines) into one easy system that can rapidly contact all employees 24 hours a day. This enables rapid recall of personnel. Communication with agencies outside public health is in place, but limited.
Fax Broadcast: The fax broadcast may be used to notify local agencies across the eight counties that have the potential to respond to an incident. The contact database includes over 1,000 local agencies, responders, medical personnel and other organizations.
Phone or Cell Phone: Telephones or cell phones will be the primary means of communication between agencies during an emergency; however, this service may not be available during some disasters.
Satellite Radios: Satellite radios are located in every hospital and health department within the 10 County BRADD area, as well as selected Emergency Management, EMS and mental health facilities. The Region IV HEART group maintains them for emergency communication purposes.

Please see Tab 7: Communication for more information on these alerting systems and other communication systems.

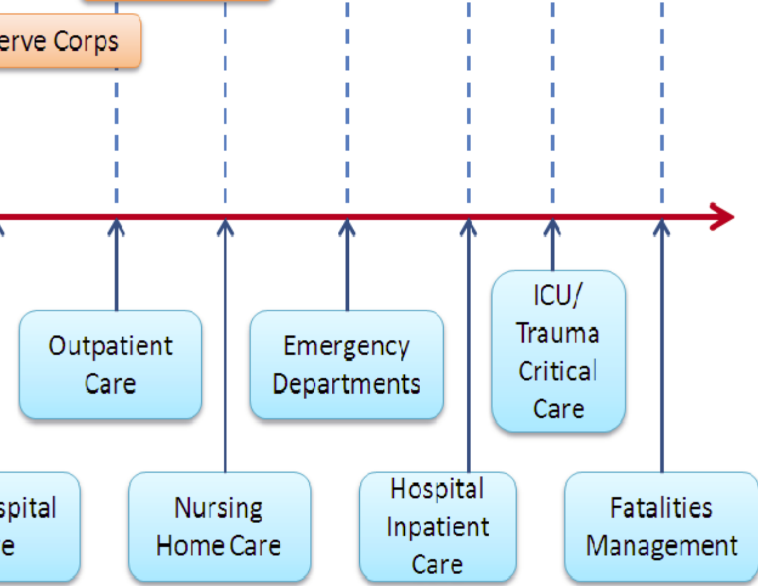
Security

The BRDHD, in coordination with the Warren County Sheriff's Office and the Bowling Green Police Department will coordinate security during an emergency. Security in

4. Regional Voluntee
(Red Cross, MRC, CE
5. Local Health Departme
Statewide
(Requested and deployed thr
6. EMAC Assistanc
(Requested and deployed thr
7. Federal Government – CDC,
(Requested and deployed thr

Barren County will be coordinated with Barren County Emergency Management, Barren County Sheriff's Office, Glasgow Police Department, and Cave City Police Department.
Security in Logan County will be coordinated with Logan County Emergency Management, Logan County Sheriff's Office, and Russellville Police Department.

Hierarchy for Surge Recruitment Local to Federal Level



Federal Spectrum of Care and Phased Deployment

The Spectrum of Care and Phased Deployment illustrates the spectrum of HHS staffing to support the local responders. Chart obtained from:

http://www.phe.gov/Preparedness/planning/nuclearresponsemanual/Documents/medplanresmannucdet-guide-final.pdf

Definition of Healthcare Workers for Immunization

In 2011, CDC released guidelines on "Immunization of Health-Care Personnel: Recommendations of the Advisory Committee on Immunization Practices (ACIP)," [HTML, http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6007a1.htm or PDF, http://www.cdc.gov/mmwr/pdf/rr/rr6007.pdf].

The definition of health-care personnel (HCP) for immunization programs in health care settings is included in detail in the second paragraph of the Introduction to those guidelines:

"HCP are defined as all paid and unpaid persons working in health-care settings who have the potential for exposure to patients and/or to infectious materials, including body substances, contaminated medical supplies and equipment, contaminated environmental surfaces, or contaminated air. HCP might include (but are not limited to) physicians, nurses, nursing assistants, therapists, technicians, emergency medical service personnel, dental personnel, pharmacists, laboratory personnel, autopsy personnel, students and trainees, contractual staff not employed by the health-care facility, and persons (e.g., clerical, dietary, housekeeping, laundry, security, maintenance, administrative, billing, and volunteers) not directly involved in patient care but potentially exposed to infectious agents that can be transmitted to and from HCP and patients."

Another variation of the definition of HCP is included as a footnote to Table 2 in the guidelines:

"Persons who provide health care to patients or work in institutions that provide patient care (e. g., physicians, nurses, emergency medical personnel, dental professionals and students, medical and nursing students, laboratory technicians, hospital volunteers, and administrative and support staff in health-care institutions)."

Kentucky statues governing vaccination of emergency responders are located in Appendix A,Tab 13.

Regional Medical Surge Trailers

In 2007, the Kentucky Department for Public Health purchased fourteen (14) Regional Medical Surge trailers to be housed in Hospital Preparedness Regions across the state.

Each trailer is 24 feet wide, with a 2-5/16 ball hitch, 120 V electrical package, rooftop AC and baseboard heater strip, rooftop vent, and one side door.

Each trailer contains supplies to care for 25 patients for three (3) days and is shown in Appendix A, Tab 13.

Medical Surge Unit Deployment Protocol

Medical Surge Unit Deployment Protocol

I. SITUATION AND ASSUMPTIONS

A. The Kentucky Department for Public Health (KDPH) has pre-positioned fourteen medical surge units, one in each Healthcare Planning Coalition (HPC) region of Kentucky. Each unit contains medical supplies to support surge events for hospitals or alternate care sites and may also be used for special medical needs sheltering or related public health disaster response events.

B. Each region has designated a host organization, in most cases a hospital facility, to house and support the medical surge unit. The host county Emergency Management Agency (EMA) has identified the unit as a pre-positioned state public health asset and will assist in the management and deployment of the medical surge asset.

II. MISSION

The goal of the KDPH and each regional HPC is to develop a coordinated mutual aid response that will enable their jurisdictions to appropriately respond to and minimize the effects of a public health emergency.

III. DIRECTION AND CONTROL

A. All operations will be carried out using the NIMS/ICS management system.

B. A medical surge unit will only be deployed and utilized when it is determined that a risk to the public health exists and resource needs exceed local emergency response capabilities. The following criteria must be met before requesting that a medical surge unit be utilized:

1. The emergency event requires a response that exceeds the capacity of the regional hospitals and regional medical stockpiles.

2. Surge support for hospitals or alternate care sites, special medical needs sheltering, or related medical supplies assistance have been deemed necessary public health response measures.

C. Authority to Deploy Medical Surge Unit

1. As owner of these pre-positioned state public health assets, KDPH has the authority to deploy any or all of the fourteen medical surge units. KDPH will consult with a host organization prior to authorizing the deployment of a medical surge unit. KDPH will make every effort to provide details of the

deployment to the regional HPC, applicable local health departments, KyEM and the local EMA and/or KyEM Area Manager.

2. This protocol includes deployment of a medical surge unit within the HPC region of the host organization. Deployment of a unit outside the host region shall not be authorized by KDPH if it is determined that the unit is needed for public health emergency response within the host region.

3. If multiple requests are made for the same medical surge unit, KDPH will:
   a. determine the availability of a unit or units from other regions,
   b. coordinate deployments with applicable host organizations as stated above, and
   c. notify the requesting jurisdictions on the status of their requests.

IV. CONCEPT OF OPERATIONS

A. Deployment Confirmation

1. With KDPH authorization and notifications as stated above, a recipient jurisdiction shall contact the host organization to confirm deployment and verify the time and location for pick-up or the KDPH arrangements for pick-up and estimated time of delivery.

B. Deployment Response and Operations

1. The recipient jurisdiction shall cover transportation cost and manage the arrangements for pick-up and return of the unit. If the recipient jurisdiction is unable to pick-up the unit or if round trip travel time is prohibitive for response needs, transportation arrangements will be managed by KDPH. The host county EMA Director or KyEM Area Manager may be asked to arrange for a tow vehicle and driver to deliver the medical surge unit to the designated delivery location.

2. The local health department and/or designated healthcare provider in the recipient jurisdiction shall assist in coordinating the personnel necessary to support operations related to the use of the medical surge unit.

C. Demobilization and Resupply

1. As soon as practical the local health department and/or designated healthcare provider in the recipient jurisdiction will conduct an inventory and report the status of all materials utilized from the medical surge unit including any items lost or broken. Reusable items such as the refrigerator and cots will be thoroughly cleaned and disinfected prior to repacking. The trailer interior and exterior shall be inspected to assess any damage and need for repairs.

2. The recipient jurisdiction will identify any funding or resources available to

resupply and restore the unit and will make every effort to cover the full cost of resupply and restoration. If the full initial inventory is not restored during demobilization, a detailed list of all missing and broken items shall be provided in writing to KDPH and the host organization. Any damage to the trailer shall also be reported, regardless of whether repairs were conducted by the recipient jurisdiction.

3. Upon return of the medical surge unit, the host organization will verify the inventory and review the condition of the trailer and its contents. Any concerns will be reported in writing to KDPH and the recipient jurisdiction.

4. If needed, KDPH will take action necessary to resupply and restore a medical surge unit. Full resupply and restoration of each medical surge unit is necessary to assure a consistent level of response capability in these pre-positioned assets.

V. ADMINISTRATIVE SUPPORT

KDPH and KyEM will ensure that emergency response agencies are provided a copy of this protocol and are notified of the pre-positioned locations of the fourteen medical surge units.

Region 4 Pharmaceutical Cache Report

A survey of HEART partners in May 2006 was conducted to ascertain healthcare agencies with pharmaceutical stockpiles. All facilities reported their stockpile was being rotated through the pharmacy, resulting in-date medication.

Agency	Pharmacutical Cache	Number Covered
Barren River District Health Dept	Doxy Cipro Nations Medicine in BG is storing and rotating this stock.	580 This includes all staff and family members of the 8 county Barren River District Health Department.
Greenview Regional Hospital	Atropine 1mg/ml Doxy 100mg IV Doxy 100mg PO Levaquin 500 mg IV Cipro 500 mg Rifampin 300 mg Gentamicin 80 mg/2ml	1,000 – 1,500 Medications for individuals for 3 days.
Logan Memorial Hospital	Cipro	375 Staff and family members.

Medical Center – Bowling Green Hospital	500 tablets Cipro 500mg; 20 jars of Silvadene cream; 250 syringes of atropine; 100 Tamiflu capsules Request for purchase with Pharmaceutical Cache Funds: Additional Cipro Doxy Levaquin 500 mg IV Rifampin 300 mg Gentamicin 80 mg/2ml	6,253 Staff and family members (Total staff and members for all 3 Medical Center Facilities: 7,216)
Medical Center – Franklin Hospital	Included with Medical Center Bowling Green Cache	658 Staff and family
Medical Center – Scottsville Hospital	Included with Medical Center Bowling Green Cache	305 Staff and family
Rivendell	Doxy Rifampin Cyanide Antidote Kit Levaquin Depakote Synthroid Nexium Alegra D Albuterol Inhaler	510 This includes staff and family members.
SKY Rehab Center	Cipro	200 Staff and family members.
TJ Samson Community Hospital	Doxy	1000 To cover employees for 3 days. Enough to cover employees for 3 days.

Laboratory Surge

The Kentucky DPH currently has lab contingency operation plans to assist local health departments and there are contingency operation plans in place with other states to assist as needed.

Medical and Hospital Surge

In response to disasters and emergencies resulting in large numbers of casualties, the local hospital and medical care system must be able to expand beyond current capabilities. This expansion includes increasing Emergency Medical System (EMS) capabilities, expansion of triage and Emergency Room (ER) capability, and expansion of hospital bed capability in the hospital, beyond the hospital, in the hospital region and at the state and national levels. Thus, Mass Patient Care occurs at each of these locations, as is explained in the sections below. Additionally, the expansion of medical care includes a surge in medical supplies and equipment.

In 2006, the 10 hospitals in the region were surveyed to determine the totals of their direct patient care and support services staff. The results of the survey are included.

Direct Patient Care Survey-Region 4 Hospitals

Direct Patient Care	Caverna	Greenview	Logan Memorial	Med Ctr BG	Med Ctr Franklin
RN	32	216	71	513	23
LPN	14	19	14	16	7
CNA	14	22	0	132	7
Resp. Therapists	3	18	12	54	2
Nurse Aids	14		13	7	0
ER Docs	Contract	5	4 Contract	Contract	Contract
Radiologists	Contract	1	0	20	7
Pathologists	0	3	1 Contract	2	0
Hospitalists	0	0	0	0	0
Total	77	284	110	744	46
Support Services					
Registration	7	20	11	66	5
Ward Clerks	3	19	2	48	5
Dietary	6	25	10	49	7
Pharmacists	7	6	3	13	2
Radiology staff	11	32	18	25	2
Labs	10	29	11	48	7
Housekeeping	6	21	7	64	5
Medical Records	5	12	3	28	1
Transcriptions	5	7	3	22	3

Total	60	171	68	363	37

Direct Patient Care	Med Ctr Scottsville	Monroe Medical	Rivendell	SKY	TJ
RN	39	31	34	38	258
LPN	30	29	1	23	102
CNA	55	21	0	0	18
Resp. Therapists	11	11	0	11	24
Nurse Aids	0	7	0	39	34
ER Docs	Contract	1	0	0	4 Contract
Radiologists	10	1	0	4	2 Contract
Pathologists	0	2 Consultant	0	0	2 Contract
Hospitalists	0	0	0	0	0
Total	145	101	35	115	436
Support Services					
Registration	11	7	3	3	24
Ward Clerks	4	7	0	4	20
Dietary	22	15	6	12	29
Pharmacists	3	5	Contract	4	5
Radiology staff	1	13	0	3	49
Labs	6	10	0	4	55
Housekeeping	16	10	4	7	63
Medical Records	3	5	1	3	30
Transcriptions	3	4	2	0	12

Total	69	76	16	40	287

Mental Health Services for BRDHD Staff / Volunteers

BRDHD will utilize Lifeskills, Inc. to provide mental health services to staff as well as patients at mass clinics or mass shelters; and for those under isolation or quarantine or social distancing restrictions. A Memorandum of Understanding has been signed between BRDHD and Lifeskills to provide services during times of disaster. Lifeskills currently has 28 local mental health professionals within our region that are Crisis Prevention Specialists that could be rapidly deployed in the event of a disaster. Additional mental health professionals could be quickly trained, if needed, to assist with crisis counseling.

Lifeskills will assure the following services will be available:

- Debriefing
- Crisis Counseling
- Critical Incident Stress Management
- Links to other mental health service support systems

Lifeskills partners with the Kentucky Community Crisis Response Board (KCCRB) http://kccrb.ky.gov/. This organization ensures rapid and effective mental health response in the aftermath of a crisis or disaster. The KCCRB credentials mental health individuals and maintains a statewide network of trained professional volunteer responders and deploys rapid response teams to crisis sites.