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Healthcare safety net providers care for medically vulnerable populations on a daily basis. During disasters they play a crucial role in maintaining the continuity of healthcare services for individuals with chronic illness and limited resources whether they evacuate or remain. This study examines the roles and responsibilities of healthcare safety net providers in Louisiana, and their ability to assist in emergency response and recovery efforts. The research uses case study methodology to examine the roles and responsibilities of healthcare safety net providers during recent hurricane events. Roles examined include operating special needs shelters, mobile medical clinics, coordination of emergency resources and assisting medically vulnerable patients with the location of medications. The research will focus on the Health Resources and Services Administration (HRSA) funded programs in the State of Louisiana. Healthcare safety net programs included in the research include: Louisiana HIV/AIDS Program (Part B), Louisiana Primary Care Association, Louisiana Bureau of Primary Health Care, Louisiana Office of Rural Health, New Orleans and Baton Rouge HIV/AIDS programs (Part A), and Louisiana Maternal and Child Health Program. The research identifies multiple areas in which emergency response and

recovery efforts could be enhanced through a greater integration with healthcare safety net providers.

A CASE STUDY ANALYSIS OF THE HEALTH CARE SAFETY NET'S EMERGENCY RESPONSE CAPABILITIES

Kirk Barnes, M.C.R.P.

APPROVED:

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Major Professor

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Committee Member

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Committee Member

_____
Department Chair

_____
Dean, School of Public Health

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Kirk Barnes, M.C.R.P.

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CHAPTER 1

REVIEW OF THE LITERATURE

This research examines the ability of healthcare safety net programs to participate in emergency response and recovery efforts. The healthcare safety net is defined by the Institute of Medicine (IMO) (2000) as, "Those providers that organize and deliver a significant level of healthcare and other health-related services to uninsured, Medicaid, and other vulnerable patients." IOM committees further defined the core healthcare safety net providers as having a legal mandate and mission to provide services to individuals regardless to ability to pay and receive a significant share of revenue from uninsured, Medicaid, governmental assistance and other charitable organizations. For the purpose of this research, only healthcare safety net providers who receive Health Research and Services Administration funding for medical services are included. HRSA funded safety net programs include: Louisiana HIV/AIDS Program (Part B), Louisiana Primary Care Association, Louisiana Bureau of Primary Health Care, Louisiana Office of Rural Health, New Orleans and Baton Rouge HIV/AIDS programs (Part A and TGA), Louisiana Rural Health Association, and Louisiana Maternal and Child Health Program.

The research uses a case study methodology to better understand the activities and roles of safety net programs during and after emergency events. The case study specifically examines Louisiana health care safety net programs' participation in response and recovery efforts for Hurricanes Katrina and Rita and subsequent Hurricanes Ike and Gustav. Louisiana's safety net programs were chosen because of their recent

participation in major emergency events. The information gained can be used to further integrate safety net providers into the emergency response and recovery system.

Research Considerations: In proposing this study, it is first necessary to briefly assess the dynamic nature of emergency response and the healthcare safety net. Emergency response and healthcare safety net activities are two distinct topics, both being extremely complex and ever-changing. Emergency response typically revolves around a defined event such as a hurricane or terrorist attack. The purpose of emergency response is to preserve life and return residents to their status prior to the emergency event. In contrast, the healthcare safety net addresses ongoing health care needs and strives to improve the lives of individuals who can not access private healthcare or have a debilitating chronic health condition. It would be impossible to fully describe both systems in one study; therefore, this study only focuses on areas of emergency management and the safety net system, which interrelate with regards to emergency response and recovery. Furthermore, the structure of the healthcare safety net widely varies from state to state; hence, the study focuses on only one state, Louisiana. The study focuses on Louisiana because the healthcare safety net system endured multiple emergencies within the past five years, generating first hand emergency response experiences. The study also narrows the definition of the health care safety net to only include organizations who receive direct funding through the Health Resources and Services Administration (HRSA). HRSA funding is a criterion because scope of service is clearly defined and descriptive data is available for each entity. Additionally, HRSA funded entities comprise the largest provider of primary healthcare in the country with

federal funding of $7.2 billion budget (FY 2008), which provides direct healthcare to over 24 million people (HRSA, 2009). The sheer scope of service makes HRSA funded safety net providers a potential nationwide emergency response and recovery resource.

Even though the definition of the healthcare safety net is narrowed to only include HRSA funded entities, it is important to note that HRSA funds a wide variety of programs. Under the Department of Health and Human Services (DHHS), HRSA is the primary federal agency for improving access to healthcare services for people who are uninsured, isolated, or medically vulnerable (HRSA, 2009). HRSA's six bureaus and 11 regional offices oversee over 80 different programs. Due to the broad nature of HRSA's goals, the agency lends itself to a wide variety of programs. Many of the large programs are widely known such as Maternal and Child Health (MCH), Federally Qualified Health Centers, (FQHC), National Health Service Corp (NHSC) and Ryan White HIV/AIDS Program. Some of the smaller programs are lesser known, for example the National Hansen's Disease Center, poison control call centers, numerous healthcare profession programs, rural health programs, national organ transplant list, etc. (Barnes, 2006).

State of Louisiana Overview

The State of Louisiana ranks poorly on national health status and health care comparisons. The Morgan Quitno Press Healthcare Status Rankings Report (2008), rated Louisiana the second unhealthiest state in the nation. The report is based on 21 factors reflecting access to healthcare providers, healthcare affordability and population health. Factors include births to teens, percent of population not covered by health insurance, death, and sexually transmitted disease rates. KIDS COUNT Data Book ranked

Louisiana's child health status 49 of 50. The low rankings stem from high rates of poverty, uninsured patients, obesity, smoking, cholesterol and hypertension along with low physical activity and reduced consumption of fruits and vegetables.

In 2007, 19% of state residents reported their healthcare was fair or poor; the rate of uninsured was 24% compared with a 17% national average (DHHS, 2007). Obesity rates increased steadily over the past five years; the state reported a 31% rate compared with 26% nationally. The prevalence of Diabetes nearly doubled in the ten-year period from 1997-2007 from 5.5% to 10.1%. (DHHS, 2007).

Louisiana's health status received a tremendous blow from Hurricanes Katrina and Rita. On August 29 and September 24, 2005, both southeastern and southwestern Louisiana sustained unprecedented and extensive devastation. Over three-million people were impacted and approximately 1,800 lost their lives (LDHH, 2006). The storms cost an estimated $150 billion due to loss of homes, communities, businesses, jobs, schools and state health care infrastructure impairment (Burton, 2005). Pre-existing state health status and infrastructure impairments, post-hurricane provider exodus, population shifts, and extensive damage to already impaired healthcare systems posed severe healthcare delivery challenges.

Due to population declines, the state's healthcare industry functions just at or below 50% capacity (Stone, 2006). The state lost over 6,000 trained medical personnel, medical as well as dental clinics, hospitals, pharmacies and other healthcare services, health information, medical records and scientific research. In 2008, 86% of Louisiana parishes were designated as Health Professional Shortage Areas. Currently, there are 471

Health Professional Shortage Area (HPSA) designations of which, 56% are primary care, 33% dental and 13% mental health (BPHC, 2009).

Impact of Hurricanes Katrina and Rita

Throughout history natural and man-made disasters have occurred, often without warning, reeking havoc on individuals and communities. Although it is impossible to predict when and where a disaster will occur, planning and preparation can mitigate many of the negative impacts of disasters. Planning and preparation allows individuals to evacuate while emergency responses provide assistance to impacted areas in a timely manner. Hurricanes Katrina and Rita highlighted many deficiencies along with some strengths, in our nation's ability to provide healthcare services following an emergency. A U.S. House of Representatives report (2006) evaluating the response to Hurricane Katrina found, "Medical care and evacuations suffered from a lack of advance preparations, inadequate communications, and difficulties coordinating efforts." In the wake of Hurricane Katrina and Rita, many investigation entities found response deficiencies, while opinions varied; it was evident that difficulties can not be attributed to a single factor, but rather multiple overlapping problems.

An overarching factor was the sheer magnitude of the disaster and the extent of flooding that occurred. The 2005 hurricane season proved to be significantly more devastating than previous years. The Gulf Cost was hit by three major Hurricanes: Katrina, Rita, and Wilma. Residents as well as responders were not prepared for the damage wrought by these storms. Although the vulnerability of New Orleans from

hurricanes and flooding of the Mississippi were well known; it was difficult to conceptualize the magnitude of damage a direct hurricane hit would have on New Orleans (Rising, 2007). Emergency management plans before 2005, anticipated hurricane damage and the flooding but did not account for mass evacuations, the poor health status of evacuees, and complete disruptions of essential services in the region (Morin, 2005). Approximately, 80% of the City of New Orleans was flooded and some areas stayed underwater for weeks (Swenson, 2006). The magnitude of the damage overwhelmed state and local government resources. Additionally, many governmental employees were forced to evacuate when their homes were destroyed and were unable to immediately return to the area. The devastation was so complete in some areas that every aspect of life, including housing, clean water, employment, roads, electricity, healthcare, and public safety were impacted. A mandatory evacuation was ordered for several areas of the state, which prohibited residents from returning for several weeks. The extensive damage caused many health professionals to never return to the area, which caused a severe shortage of healthcare professionals.

Difficulties in emergency planning often occur when previous emergencies dictate the planning and preparation for subsequent emergencies rather than relying on current information (Palmer, 2009). Since Hurricane Betsy in 1965, most major hurricanes missed New Orleans, creating a false sense of security for residents who had grown accustomed to hurricanes having minimal impact on the city (HurricaneCity, 2009). Rather than evacuating early, residents waited until it was all but certain Hurricane Katrina would hit New Orleans and even then many residents choose not to evacuate

(Morin, 2005). Over 100,000 greater New Orleans residents failed to evacuate prior to Hurricane Katrina making landfall even ignoring mandatory evacuation orders (Niggs, 2006). In contrast, when Hurricane Rita was projected to hit Houston, the media coverage of the devastation of Hurricane Katrina motivated large numbers of residents to evacuate, even though many lived in areas safe from the projected storm surge (Palmer, 2009). The large number of evacuees from the Houston area created "bottle necks" on the roads exiting the gulf, which led to multiple fatalities. This demonstrates the need to develop unique plans for regions rather than relying on historical precedents and clearly communicating the best course of action to the general public. During Hurricane Ike the City of Houston was able to evacuate the areas of the city susceptible to the storm surge and requested other areas to not evacuate. This significantly reduced gridlock on highways exiting the coast (Palmer, 2009).

Throughout the response and recovery efforts, communication between governmental entities was a major obstacle. Communication is important because planning for emergency events is based on a tiered approach which first utilizes local, then state, and finally federal resources (DHS, 2009). Emergency plans are based on the concept of federalism. Emergencies are the responsibility of the states unless they request help from the federal government. The Tenth Amendment of the Constitution provides that "the powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people…" (Thomas.gov, 2009). In addition, state plans relegate most emergency functions to the local governments unless they request assistance from the state. Ideally, during emergencies

the local government would respond and request assistance as needed. Then the state would respond and request assistance as needed from the federal government. In the case of Hurricanes Katrina and Rita, the hurricanes significantly disrupted the ability of state and local governments to operate. Many of the local and state government employees lived in areas of New Orleans that were flooded and evacuated. The lack of specific requests for services from state and local governments impaired the federal mobilization efforts (U.S. House of Representatives 2006). Federal emergency plans did not anticipate disruptions in state and local governments. The federal plan did not have specific contact information for individual entities such as hospitals and healthcare facilities. Without pre-existing communication channels, impacted hospitals were unable to specifically request what they needed from the federal response (Barnes, 2005).

Emergency events magnify the effects of pre-existing chronic illnesses. Hurricane Katrina highlighted the health disparities of low income, minority groups who disproportionately suffer from chronic illness (Rudowitz, 2006). Medical response to the hurricanes was hindered by poor health status of the evacuees and lack of economic resources. In 2004, 22% of Louisiana residents were living in poverty compared to 17% of the U.S. residents (Lillie-Blanton 2006). In addition, 21% of Louisiana residents lacked health insurance. Poverty and lack of health insurance is especially relevant in the African American population where 40% of population live in poverty and 28% lack health insurance. Poverty and lack of health care contributes to untreated chronic health conditions. Untreated chronic conditions increased the amount of care medical responders had to provide at evacuation shelters (Brideau, 2006).

An unanticipated problem was evacuation of a significant number of impoverished and special need individuals (Brennan, 2009). Louisiana and Mississippi have the greatest proportion of individuals living in poverty. Prior to the Hurricane, the City of New Orleans had 23% living in poverty while Mississippi had 21%. In comparison, the national average of people in living in poverty was 13% (Center for Progress, 2005). Poverty can significantly impact individuals' ability to evacuate. Due to the lack of personnel resources, improvised individuals often rely on extended families and informal network of people to survive (Payne, 2001). Catastrophic disasters like Hurricane Katrina completely uprooted the community support mechanisms, which created greater dependence on government assistance. Over 90,000 people living in Hurricane Katrina and Rita affected areas of Louisiana and Mississippi had incomes less than $10,000 per year (Brennan, 2009). Limited financial resources hindered many of the individual's ability to evacuate. A survey of individuals who did not evacuate found that 34% cited their decision was based on not having a car or other means of transportation. An additional difficulty was the higher percentage of disabled elderly individuals in New Orleans, 56.4% compared with 39.6% nationally (Center of American Progress, 2005).

Patients with preexisting chronic conditions created the large demand for services at evacuation centers, mobile medical clinics, shelters and FEMA trailer parks, which significantly led to storm related deaths (Payne, 2005). Currently, about 50 million Americans lack health insurance and over 20% of population in the New Orleans area lack health insurance. The lack of health insurance hinders the ability of individuals to access health care services. Hurricane Katrina highlighted the fact that emergency

preparedness is not only responding to a singular emergency event but rather addressing pre-existing health care needs of communities. Healthier communities are better equipped to respond and recover from disasters. Emergency events often worsen chronic conditions, such as hypertension, heart disease, diabetes, and asthma. Decline in health status is attributed to lack of routine care during emergencies, inability to fill prescriptions, and increased stress/anxiety (Brunkard, 2008) (Centers for Disease Control, 2005) (Brennan, 2009). In September and October 2005, 31% of the medical encounters associated with Hurricane response were for chronic disease conditions. Disaster survivors with pre-existing chronic conditions are especially vulnerable due to the stress of disaster situations (Rath, 2009). Chronically ill children and adolescents experienced significant amounts of disruptions in care and suffered adverse health outcomes due to disasters. Additionally, children with chronic diseases are more likely to develop chronic stress disorders, such as: fear, depression, post-traumatic stress symptoms, and behavioral alterations, than those without chronic conditions after a disaster event (Rath, 2009).

The public health care system is a complex network of individuals and organizations that, when working together, can collectively improve the health conditions of people (Institute of Medicine, 1988). Hurricane Katrina demonstrated the fragile nature of the public health care system. A difficulty with the public health care system is its limited amount of capacity to provide care. According to the American Hospital Association data, 48% of the emergency departments describe themselves as crowded a majority of days and 46% regularly go on diversion (American Hospital Association, 2009). When a disaster disrupts one portion of the public health care system, a significant

strain is placed on the rest of the system. Limited capacity often leads to patients being unable to find care, especially if they are bereft of health insurance. Before Hurricane Katrina, Charity Hospital in New Orleans was the default location to send special needs patients. Many of the nursing homes and home health care organizations evacuated their patients to Charity Hospital, since the hospital is the primary safety-net hospital in area and low income and uninsured patients. The lack of payor sources for patients at Charity Hospital created a dilemma for evacuating patients. Surrounding hospitals were reluctant to admit additional patients with a payor source (Grey, 2009).

A significant number of health care institutions closed after Hurricane Katrina, which created difficulty finding health care services in many areas of the state (U.S. News and World Report, 2006). Before Hurricane Katrina, New Orleans had 16 acute-care hospitals with over 4000 beds. Six months after the storm the city had nine hospitals with 2000 beds. The number of nursing homes decreased from 63 to 34. Before the Hurricane, over 90 clinics provided safety net care. After the hurricane, the city had only 19 clinics providing safety net care (U.S. News and World Report, 2006). Due to the closure of the clinics, emergency room visits at Ochsner Hospital were up 60%. The number of uninsured patients at the hospital also jumped from 3% to 20%. An additional strain on the health care system was the cost of providing care significantly increased because many providers left and did not return.

Emergency Preparedness Infrastructure

The United States' emergency management policies have developed over time as disasters occur in the country. Although, the U.S. government first provided assistance to

disaster victims in 1803 after the Portsmouth fire in New Hampshire; until the 1930s the U.S. government provided little direct assistance with disaster recovery. Large scale disasters such as the Great Chicago Fire in 1871 and the Johnstown Flood of 1871 would have national impact on regulations to prevent manmade disasters (Butler, 2007). Disaster response significantly changed under the Franklin D. Roosevelt administration. Roosevelt's New Deal expanded the role of the federal government to include disaster response with the establishment of the Reconstruction Finance Corporation (RFC). The RFC provided loans to rebuild public facilities after disasters. The role of the federal government further expanded in 1937 with the establishment of the Disaster Loan Corporation, which is the predecessor to the Small Business Administration. In general, the New Deal legitimized the expanded role of government in emergency management response and recovery (Butler, 2007). The Federal Disaster Relief Act passed in the 1950's provided assistance on an ongoing basis rather than requiring Congressional appropriations after each disaster and granted the President authorization over disaster assistance. The Act also mandated the need for disaster planning. Additionally, President Truman passed the Civil Defense Act which created the Federal Civil Defense Administration to deal with possible attacks from foreign enemies within the US. This Act emphasized the need for preparedness and allowed for assistance to rebuild cities impacted by bombings (McEntire, 2007).

Difficulties persisted due to the poor coordination of disaster response resources that were spread across multiple federal agencies. The Disaster Relief Act of 1974 outlined the detailed conditions in which a president could request assistance for

disasters. In 1979, President Carter created the Federal Emergency Management Agency to integrate multiple federal agencies into FEMA, which streamlined disaster assistance. The creation of FEMA established an ongoing governmental agency dedicated to emergency management which included mitigation, preparedness, response and recovery activities (McEntire, 2007). Additionally, FEMA began to require that state and local governments plan and prepare for emergency events. The Disaster Relief Act of 1974 was amended in 1988 with the Robert T. Stafford Disaster Relief and Emergency Assistance (Stafford Act.) The amended law established the Federal Response Plan as a better approach to coordinating emergency response activities. The Act also required a presidential disaster declaration before federal assistance could be provided.

In the 1990s, several major disasters emphasized the need for a better federal response mechanism. The FEMA director, James Lee Witt, was given cabinet status and implemented an overhaul of the emergency management infrastructure. The purpose of the overhaul was to increase the training of federal officials and use technology to speed up assistance to affected communities. Additionally, Project Impact was established to help communities become disaster resistant. The Emergency Management Assistance Impact promoted coordination between state and local governments and emphasized emergency preparedness (McEntire, 2007).

The provision of healthcare services is crucial during and after emergency events. Protecting the public health is a core governmental function and is especially essential when the existing healthcare infrastructure is damaged. Public health interventions after emergencies often include:

- Conducting needs assessments of affected communities, including the status of healthcare facilities,
- Establishing surveillance for injuries, illness, and deaths,
- Disseminating information on health hazards, including water, food, and air quality.
- Monitoring infectious diseases and recommending appropriate precautions and immunizations
- Providing medical, dental, and mental health services as needed
- Overseeing the evacuation of medical facilities such as hospitals, nursing homes, and long term care.
- Providing medical care at temporary shelters. (Landesman, L., 2001)

Public Health Emergency Response to Hurricanes Katrina and Rita

In response to Hurricane Katrina, U.S. Health and Human Services deployed over 2000 PHS officers; the largest deployment in history of the Corps. They deployed as part of Emergency Support Function 8, which is responsible for health care services (Vanderwagen, 2006). The National Disaster Medical System (NDMS) deploys first medical responders called Disaster Medical Assistance Teams (DMATs.) DMATs are the initial responders during the first 72 hours after an event. During the creation of the Department of Homeland Security (DHS), the DMAT's function was moved from the Department of Health and Human Service (DHHS) into DHS. Due to the lack of coordination of DMATs during Hurricane Katrina, the White House's Katrina Lessons

Learned Report recommended the transfer of the NDMS from DHS to HHS, which required a legislative change.

The need for comprehensive emergency response and recovery throughout the public health sector is well established. The National Response Framework (NRF) (Federal Emergency Management Agency, 2009), specifically identifies public health and medical services as a designated emergency support function (ESF.) The Public Health and Medical Services ESF is designated as number 8 on the Department of Homeland Securities' list of 15 ESFs (Appendix #1). On the national level, ESF #8 is coordinated by Department of Health and Human Services (DHHS.) All 50 states have plans that are similar to the national response framework and designate individual state offices for public health and medical services. It is important to note that the federal government does not have fulltime command of health care professionals whose sole function is to deploy during emergency events. Unlike local governments who employ emergency personnel on the ready such as fire fighters, emergency medical services and police, federal and state governments do not maintain a large capacity of emergency personnel. One difficulty is that emergency situations requiring state and federal emergency response are infrequent; therefore, it is not economical to maintain a healthcare emergency workforce that is at the ready. DHHS has a Ready Responder Program as part of HRSA's National Health Service Corp; however, there are currently less than 50 Ready Responders nationwide. DHHS has a few employees who coordinate emergency operations while a majority of personnel who are deployed are federal employees (often Public Health Service Commissioned Officers) and volunteers. Each of

these individuals has responsibilities outside of emergency response and recovery and it is often difficult to deploy employees and volunteers for more than two or three weeks. Thus, it is crucial that the existing health care infrastructure be prepared to respond to emergency situations.

ESF #8 – Public Health and Medical Services ESF Coordinator: Department of Health and Human Services
• Public health • Medical • Mental health services • Mass fatality management

Health Care Safety Net System

HRSA-funded safety net providers are not inclusive of the entire healthcare safety net system; although the HRSA-funded safety net provides a broad base of health care services to the uninsured, isolated or medically vulnerable. HRSA funds over 80 different programs which encompass a wide variety of healthcare initiatives. In 2008, HRSA programs provided direct healthcare services to 23 million people annually and have a budget of over $7 billion (HRSA, 2009).

Primary Health Care

HRSA funds over 1,100 health centers that operate more than 7,000 clinics and mobile medical vans. Health centers deliver primary and preventive care to over 16-million low-income patients in every state, the District of Columbia, Puerto Rico, the U.S. Virgin Islands and U.S. possessions in the Pacific. Health centers employ approximately 8,000 physicians, 4,600 mid-level practitioners, 2,100 dentists, and 2,700 mental health professionals. A majority of healthcare services are provided to individuals

living in poverty which typically have the greatest negative impact from emergency events (BPHC, 2007). Community health centers have been providing healthcare services for the uninsured and underserved for over 40 years. In 2001, the Bush administration launched a five-year initiative to add 1,200 new or expanded health center sites to increase the number of patients to 16 million by 2006. Additionally, President Bush's initiative includes 200 new health center sites in the Nation's poorest rural and urban areas. Recently, the American Recovery and Renewal Act (ARRA) designated approximately 1.5 billion dollars to expand community health center services.

Primary care funding for the State of Louisiana in 2008 total $28,271,136. HRSA currently funds 25 primary care grants in Louisiana including 23 Federally Qualified Community Health Centers (FQHCs) with 109 service delivery sites. In the past six years, FQHC's capacity to provide healthcare services significantly increased. The number of FQHC's patients increased from 101, 278 users in 2004 to 149,269 users in 2007. FQHCs specialize in providing services to at-risk populations such as homeless and migrant populations and often have mobile medical capabilities (HRSA, 2009).

Modern community health centers are a combination of several federal programs, such as migrant health centers, healthcare for the homeless, public housing health centers, and neighborhood health centers. Community health centers are funded through the Health Centers Consolidation Act of 1996 under Section 330 of the Public Health Service Act. The first community health centers began during the Johnson administration's War on Poverty. Community health centers were initially named neighborhood health centers and were created in 1965 as part of the Office of Economic Opportunity (OEP) which

was later dissolved in the early 1970s and the program was moved to the Department of Health, Education, and Welfare (HEW.) HEW later became the Department of Health and Human Services and community health centers were placed in the Health Resources and Services Administration. Federal funds for community health centers bypassed state governments and provided resources directly to community-based, nonprofit organizations (NHPF, 2004).

Community health centers vary widely depending upon the needs of the community they serve and from which program they originated (migrant health, neighborhood health, or health care for the homeless.) Some similarities do exist because of federal funding requirements. Community health centers must be located in an area which is considered a medically underserved area (MUA) or serve a population designated as a medically underserved population (MUP). The community health centers must be nonprofit, public, or tax exempt and provide comprehensive primary care services, referrals, and other ancillary medical services (dental, mental health, case management) as needed in the community. Two significant differences between community health centers and other non-profit healthcare providers is that the governing board must contain a majority of its members from the clients they serve (migrant health and homeless healthcare centers are exempt from this requirement) and the community health center must provide services regardless of a patients' ability to pay. The requirement that over 50% of the board be patients of the community health center is intended to ensure that the community health center is reflective of the population it serves and is responsive to the communities' needs. This requirement tends to limit the

organizations that can receive Section 330 funding. Organizations such as hospitals, local governments, large healthcare providers, and religious organizations are not eligible for funding because their boards do not have 50% users (NHPF, 2004).

The 2002 reauthorization, Health Care Safety Net Amendments required that funding be awarded in a previously defined proportion, which is about 80% for community health centers with the remaining 20% divided across migrant, public housing, homeless and school-based clinics (NHPF, 2004). Federal funding for health centers accounts for less than a fourth of the centers' operating budgets. Medicaid reimbursements account for over 36% of health centers' reimbursements. Unlike other healthcare providers a relatively small amount of revenue is received through private insurance (6%) and Medicare (6%). In 1989 Congress created the Federally Qualified Health Center (FQHC) Act to ensure that States do not use Section 330 funds as a method to subsidize state Medicaid programs. To address this concern the FQHC Act established a preferential payment policy of health centers by reimbursing health centers based on "cost-based" rates for Medicaid and Medicare. Health centers were reimbursed based on the actual cost of services which are negotiated with the states.

Federally-funded health centers can play a crucial role in the disaster response and recovery efforts. This was evident during Hurricanes Katrina and Rita, where health centers provided medical assistance to evacuees at several emergency shelters and were one of the only primary health clinics to remain open in sectors of New Orleans after the hurricanes. To maximize their effectiveness in time of crises it is important that health centers have a well-defined emergency preparedness plan in place prior to a disaster. An

emergency preparedness plan is more than a simple template; it needs to be a planning process that prepares the organization for numerous disaster scenarios.

Often community health centers operate school-based health centers, which fill a unique role in the nation's public health infrastructure. They strive to bridge the gap between healthcare providers and underserved youth who do not have access to health care services. In addition to preventive medical care, school-based centers also provide health promotion activities and psychosocial services. The specific services provided by school-based centers vary widely depending upon the state and community where the center resides. Common features of the centers include that they have facilities located in schools and are focused on providing services to students. They are usually operated by local hospitals, public health departments, or community health centers. The centers generally require parents to sign written consents for services and medical services are provided by midlevel providers (nurse practitioners or physician assistants.) School-based centers are not intended to be a replacement for school nurses.

HIV/AIDS Care

HRSA's Ryan White HIV/AIDS Bureau provides primary care, support services and antiretroviral drugs for about 530,000 low-income people living with HIV/AIDS. The program also funds training, technical assistance and demonstration projects designed to slow the spread of the epidemic in high-risk populations. These services avert more costly in-patient care and improve the quality of life for those living with the virus. The Ryan White HIV/AIDS Program currently participates in the Presidents Emergency Plan for AIDS Relief (PEPFAR.) HRSA operates its Global HIV/AIDS Program through

HRSA's HIV/AIDS Bureau, which is the third largest provider of PEPFAR funds. The HIV/AIDS Bureau draws on over two decades of experience implementing some of the first US HIV/AIDS care programs in the early days of the epidemic. These efforts include the Ryan White HIV/AIDS Program, the largest program in the U.S., focused solely on HIV/AIDS care. It was first established in 1990 as the Ryan White CARE Act, whose foundations were based upon earlier HRSA initiatives that were crafted in the mid to late 1980s (HIV/AIDS Bureau, 2009). During an emergency, the HIV/AIDS programs strive to provide continuity of care for their clients, often referring them to Ryan White funding programs outside of the impacted areas. In 2008, HRSA provided $44,285,503 grant funds for HIV/AIDS care (HRSA, 2009).

Maternal and Child Health

One of the most successful public health initiatives in U.S. history, the HRSA Maternal and Child Health Bureau (MCHB) annually administers programs serving more than 34-million people. Approximately 60% of women giving birth annually in the U.S. receive services through HRSA-supported programs. Most MCHB funds are sent to states through formula-based block grants; in 2008, these grants totaled $666 million. Also, state block grants support Special Projects of Regional and National Significance (SPRANS) and Community Integrated Service Systems (CISS) projects. SPRANS support research and training, genetics services, newborn screenings and treatments for sickle cell disease and hemophilia. CISS seeks to increase service delivery capacity and foster comprehensive, integrated, community service systems for mothers and children. Other HRSA/MCHB-supported programs include: (1) Healthy Start; (2) Universal

Newborn Hearing Screening; (3) Traumatic Brain Injury; (4) Emergency Medical Services for Children; (5) Children with Autism and Epilepsy; and (6) Family-to-Family Health Information Centers (HRSA, 2009).

State block grants provide: (1) basic health services for pregnant women, mothers, infants, children and children with special health care needs (CSHCN) and their families; (2) enabling services such as transportation, translation and health education; (3) population-based services including newborn and lead screening, immunizations and injury prevention; and (4) capacity/infrastructure building services such as needs assessment, policy and standards development and health information technology.

Based in the Office of Public Health (OPH) Center for Preventive Health, the Louisiana MCH program is administered by the Department of Health and Hospitals (DHH) Maternal and Child Health (MCH) and Children's Special Health Services (CSHS) sections. The block grant serves the large medically indigent population and provides personal and public health services through parish health units statewide. In addition, MCH/CSHS provides population-based and infrastructure building services. In 2008, Louisiana received $49,382,163 in MCH federal-state partnership block grant funds and served 212,827 individuals (HRSA, 2009).

Health Professions

HRSA safeguards the foundations of the US healthcare system by targeting grants to academic institutions to support post-graduate faculty retention; administering scholarships to increase staff in critical specialties, such as nursing; and funding leadership development programs. These programs leverage the educations of about

10,000 clinicians annually. In 2008, HRSA grant awards for health professions were $6,536,303 (HRSA, 2009).

Health Care Systems

HRSA oversees the nation's organ, bone marrow, cord blood donation, transplantation systems, and a drug discount program for certain safety-net healthcare providers. The agency also supports the nation's poison control centers and vaccine injury compensation programs, which distributes awards to individuals and families shown to have been injured by certain vaccines. In 2008, HRSA provided $345,334 in funding to health care system grants in Louisiana (HRSA, 2009).

Rural Health

To make healthcare more accessible for the 60 million residents of rural America, HRSA funds programs that integrate and streamline existing rural healthcare institutions and aid in the recruitment and retention of physicians in rural hospitals and clinics. Louisiana received $2,540,419 in rural health funding in 2008 (HRSA, 2009). Part of HRSA's rural health funding is the TeleHealth program that uses information technology to link isolated rural practitioners to medical institutions over great distances (HRSA Office of Rural Health, 2009).

Safety Net Providers During Emergencies

Federally-funded health centers can play a crucial role in disaster response and recovery efforts. This was evident during Hurricanes Katrina and Rita where health centers provided medical assistance to evacuees at several emergency shelters and were

among the only primary health clinics to remain open in New Orleans after the hurricanes. To maximize their effectiveness during times of crisis, it is important that health centers have a well-defined emergency management plan in place prior to a disaster.

The key element of an emergency management plan is that it needs to be usable in a time of crisis. Plans that are cumbersome to read, contain irrelevant information, or are not updated routinely are of little use during a disaster. Health centers' emergency management plans should read like a how-to guide rather than a complex technical document. Plans should clearly and concisely identify steps and delegate authority during emergency situations.

A second key element is the proper coordination of disaster response and recovery between federal, state, and local emergency management officials. The importance of health center coordination was highlighted during hurricanes Katrina and Rita. Health centers were not recognized in state emergency management plans, thus were underutilized in state and federal disaster response and recovery efforts. Health centers proved to be a valuable resource after the hurricanes because their federal funding allowed them to remain open while other clinics were forced to close and they had expertise in providing health and support services to the displaced population.

CHAPTER 2

STATEMENT OF THE PROBLEM

A review of the literature found little information on the integration of healthcare safety net providers into emergency response and recovery efforts. Most literature does not correlate healthcare safety net services with emergency response and recovery efforts, even though there are clearly strong similarities between the two. This research considers the possibility of dual roles; providing service to the uninsured/underserved populations and responding to emergency events. If feasible this would be an effective use of scarce health care resources. Additionally, the country can prepare for emergencies on a daily basis by addressing chronic conditions and strengthening the ability of local governments to respond to emergencies. Furthermore, integration of the healthcare safety net system into the emergency response and recovery effort would reduce the reliance on private sector providers who heavily rely on fees for service reimbursements. During emergency events it is difficult to file claims for services, which creates a significant financial burden on private health care providers.

In this study, the health care safety net examined is HRSA funded entities. Structural elements create the healthcare safety nets' potential to provide emergency response and recovery services, while processes direct this potential towards appropriate activities to be incorporated into emergency management activities. Currently, the environment is that the healthcare safety net providers are not fully considered as resources for emergency response and recovery effort. The desired outcome is the incorporation of safety net providers into emergency response and recovery efforts and a

growth in the capacity of safety net programs to provide services. The study focuses on the statewide, HRSA grantees that represent individual grantees or safety net systems in Louisiana.

The grantees participating in the study have organizational structures that widely vary, which impacts their perceptions and experiences with regards to emergency response and recovery efforts. Participants included representatives from state, municipal, university, and professional associations. Participants from state agencies emphasized the importance of state level planning efforts while participants from local government highlighted the need for greater involvement in municipal efforts. Participants from associations and universities viewed emergency preparedness from an individual entity level.

Operational Definitions

This study will include two distinct structures, including (1) the healthcare safety net programs which receive funds from HRSA to care for uninsured, underserved and medically vulnerable populations and (2) the emergency response and recovery system, which includes federal, state, local government and supporting entities in emergency management planning and resource activation in response to defined emergency events. Emergency response and recovery efforts currently include HRSA safety net providers; however, there is no clearly defined role for safety net providers in emergency plans. Additionally, funding streams for safety net providers generally do not include defined emergency response and recovery roles.

Research Questions

The following presents the research questions and hypotheses guiding the research methodology.

Research. What roles does the healthcare safety net provide in emergency response and recovery efforts and can the roles be expanded to improve emergency response and recovery as well as health care services for low income individuals?

Hypothesis 1: Healthcare safety net providers currently participate in emergency response and recovery efforts.

Hypothesis 2: Services provided by healthcare safety net providers are similar to emergency response and recovery services.

Hypothesis 3: Structure of emergency management plans hinder healthcare safety net providers' inclusion in emergency management.

Hypothesis 4: Reducing unmet chronic health conditions would reduce the demand for emergency services.

CHAPTER 3:

METHODOLOGY

Study Design

This cross-case synthesis study is based on case study research analyzing multiple case studies of Louisiana safety-net providers' experience with emergency response and recovery (Yin, 2009). This section covers the survey participants, instrumentation, on-site data collection, procedures and data analysis of the study.

Participants

The study includes 22 key individuals representing eight HRSA-funded programs participating in Louisiana. Detailed information on participating organizations is located in Appendix 3. The study unit is the HRSA-funded safety net grantee, with grantee personnel serving as the key informants on grantee emergency preparedness. The case study consisted of a survey that was addressed to the grantees' contact person, usually the executive director, and an on-site session with key staff. The HRSA-funded programs participating in the study included:

- State HIV/AIDS Program (HAP Part B);
- Louisiana Primary Care Association (LPCA);
- Louisiana Rural Health Association (LRHA);
- Louisiana Bureau of Primary Care and Rural Health (LBPHC);
- City of New Orleans HIV/AIDS Program (NO Part A);
- City of Baton Rouge HIV/AIDS Programs (BR Part TGA);
- Delta Regional AIDS Education and Training Center (DAETC); and

- Louisiana Maternal and Child Health – Title V (LMCH).

Instrumentation

The case study instrument included the collaborative efforts of the primary investigator (K. Barnes), HRSA staff, and doctoral advisor/State Partnership Session (SPS) consultant (K. Lykens.) The structure of the SPS included: (1) performance reviews of five of the eight participating grantees, (2) a mailed survey, which requested detailed information on emergency preparedness plans and activities, and (3) a two-day facilitated discussion about the emergency preparedness of the health care safety net.

Performance reviews of grantees were conducted from November 2008 to June 2009. The performance reviews allowed SPS participants to: (1) introduce respective program staff, services and populations served; (2) identify and discuss public health issues and concerns; and (3) develop collaborative partnerships to explore program effectiveness, enhance performance and improve health status. The performance reviews typically consisted of four pre-site conference calls, two or three days on-site, and the completion of a post-site report. The LPCA performance review included a performance measure on organization participation in emergency response and recovery efforts and number of individuals trained in National Incident Management System (NIMS). The measure was included because the grantee received direct funding for emergency response coordination.

A seven item survey was mailed in August, 2009 to the participants. The survey was developed to collect background information on grantee's emergency preparedness

efforts and request emergency plans and policies. The survey consisted of following seven items:

1) Identification of the organization's emergency contact for emergency planning, coordination, and management.
2) A description of existing policies and procedures to ensure operational continuity during emergencies.
3) A description of existing policies and procedures to ensure post-emergency operations continuity.
4) The frequency of the organization's participation in continuity of operations (COOP) exercises drills.
5) Emergency plans if available for review.
6) Identification of services provided after emergency events and other services that required modification.
7) Tips for other safety net providers about the continuity of services during and after emergencies.

The survey questions were developed to collect relevant information including: pre-existing emergency response and recovery planning; gauge the level of participation in emergency preparedness activities; and collect relevant plans and policies. The survey questions were developed by the State Partnership Session team and were considered part of the State Partnership Session (SPS) process, which is a defined role of the HRSA Office of Regional Operations. The team determined the survey questions should be open-ended to allow participants to submit information they felt were relevant to

emergency preparedness. For example, three of the participants sent copies of their Pandemic Flu plans due to the on-going H1NI influenza pandemic. The surveys were mailed to the directors of each of the programs, requesting a response within four weeks. Five of the seven participants returned surveys.

October 21-22, an on-site session was held to discuss emergency preparedness activities with the participants. The session consisted of a facilitated discussion where participants could openly discuss the topic of emergency preparedness. The session was held at the Baton Rouge Foundation. The room was set up in a circular manner to facilitate discussions among participants. The facilitator stood at one end of the room and facilitated discussions. The facilitator would pose a question and then call on participants to provide their input in the order in which they raised their hands. An effort was made to ensure that all participants had an opportunity to provide input and that the discussion was not dominated by any one individual or organization. The session started with an overview of the State Partnership Session process and objectives. At the beginning of the session, participants were informed that information gained from the session would be used in a doctoral dissertation and relevant publications. It was pre-determined, based on the response to the surveys that the discussion would be based on three topic areas. The facilitator provided questions to initiate discussions in each of the topic areas. The discussion was divided into three topic areas and questions, including:

(1) Participants post-Katrina experience with emergency planning and disaster response.

a. What specific roles does your organization fill during emergency response and recovery efforts?

b. What policy and procedural changes where made due to lessons learned from Hurricanes Katrina/Rita and subsequent hurricanes?

c. How does your organization participate in evacuation efforts? In what ways?

d. Beside emergency planning and participating in planning activities, in what on-going emergency preparedness activities does your organization participate? (Examples – Emergency Simulations, Continuity of Operations Planning (COOP) exercises)

e. How are employees kept up-to-date on emergency preparedness responsibilities and how are these routinely tested? (Examples - National Incident Management Training, Organizational level tests.)

(2) Best practices for healthcare safety net providers.

a. From your emergency experiences, what emergency response and recovery advice would you give colleagues in other states?

b. If additional resources were available for emergency preparedness how would your organization use them and what benefit would they serve?

c. Would additional focus on addressing public health needs (chronic disease, mental health care, dental care) before emergencies help improve emergency response efforts?

(3) Emergency preparedness partnerships and collaborations.

a. How can HRSA be of assistance during emergency events?
b. How can HRSA strengthen partnerships between local, state and federal emergency planning, response, and recovery efforts?
c. What are some possible next steps for discussions about emergency preparedness and the healthcare safety net?

Additional descriptive data about HRSA grantees are available through archival data. FQHCs are required to complete annual reporting that is publicly available through the Uniform Data System (UDS). HIV/AIDS providers complete annual reporting through the Ryan White Data Report (RDR) and the Ryan White Service Report (RSR). Additionally, the Maternal and Child Health Programs compile a significant amount of data which is reported on their annual block grant application. The 2000 U.S. census data provides demographic data for the state. This study was granted exempt status by the University of North Texas, Health Science Center's Institutional Review Board.

Outcomes

The outcomes of the structural, procedural, and environmental determinants of the healthcare safety net system level of emergency preparedness include the emergency response infrastructure, collaboration activities, internal and external communications, training activities, emergency planning, and coordination with emergency response efforts.

Emergency response and recovery infrastructure

Survey and discussion questions gauged the safety net providers' existing infrastructure to respond to emergency and assist with recovery efforts. Emergency response and recovery infrastructure includes the ability to coordinate pharmacy services, ability to provide medical care at evacuation shelters, implementation of personal emergency plans and integration with local governments response and recovery efforts.

Collaboration with emergency services

Survey and discussion questions gauged the safety net providers' efforts to collaborate with other entities before and after emergency events. Questions included the ability to collaborate with other health care safety net providers, linking clients with healthcare services after an emergency and supporting state emergency response functions.

Internal and external communication processes

Survey and discussion questions explored safety net providers' integration within the safety net system, communication with clients, communication with federal partners, and communication with staff during and after emergency events.

Emergency preparedness training

Survey and discussion questions explored safety net providers' emergency preparedness training and continuity of operations exercises. Questions included the integration of National Incident Management System (NIMS) training and participation in emergency simulations.

Emergency planning

Survey and discussion questions examined safety net providers' participation in emergency planning. Questions included the promotion of personal emergency plans, engagement in community level planning, and grantee level planning.

Coordination of emergency services

Survey and discussion questions examined safety net providers' coordination with emergency management services. Questions focused on the use of public health professionals and volunteers during emergency events.

CHAPTER 4.

DISCUSSION OF RESULTS

Discussion of Results

This research identifies safety net providers' participation in emergency response and recovery activities and examines the similarities between the routine services provided by the safety net system and the medical services needed after emergency events. Additionally, it examines barriers that hinder safety net providers from participating in emergency response activities. To study the relationship between the safety net system and emergency response activities, 22 individuals representing 8 HRSA-funded Louisiana grantees were surveyed, reviewed and interviewed in onsite discussions during a two-day session. The study used a "cross-case synthesis" methodology based on case study research that analyzed multiple case studies of the Louisiana safety-net providers' experience with emergency response and recovery (Yin 2009). The study includes an assessment of current emergency planning activities of the safety net system, including the examination of individual emergency plans, description of emergency response activities for Hurricane Gustav as well as Hurricane Ike, review of existing collaborations and partnerships, and the ability to communicate during emergency events. Appendix 1 reviews the HRSA funding programs including any funding received in 2008. The table briefly describes the purpose of the funding and possible emergency response and recovery efforts.

This chapter presents a discussion of the research findings and hypotheses in relation to pre-existing research and emergency management frame work. It begins with a review of the findings and then examines each hypothesis as either supported or unsupported by the findings. This study involves four hypotheses, each of which pertain to the roles that healthcare safety nets play in providing emergency response and recovery efforts as well as healthcare services for indigent and low-income individuals. The hypotheses are as follows: (1) Healthcare safety net providers currently participate in emergency response and recovery efforts; (2) The services offered by these providers on a daily basis are typically the types of services that are needed after a disaster or catastrophic event; (3) Currently the structure of state emergency management plans do not allow for the inclusion of these healthcare safety net providers; (4) Reducing the amount of untreated chronic health conditions would, in turn, reduce the demand for emergency services. Three core areas were used to collect information regarding these hypotheses: (1) The experience of participants just after Hurricane Katrina with regard to emergency planning and disaster response; (2) Emergency response Best practices for safety net providers; and (3) Emergency preparedness collaborations and partnerships.

The study documented the emergency response activities of the participants. The findings are based on the verbal comments provided during the on-site discussion, participant surveys and submitted emergency plans. Due to the large amount of information submitted, relevant information is documented under each of the four hypotheses.

Participation in Emergency Response and Recovery

This study hypothesizes that safety net providers currently participate in emergency response and recovery efforts. Safety net providers reported greater participation with emergency response and recovery efforts during Hurricanes Ike and Gustav than for prior Hurricanes Katrina and Rita. Each of the participants provided examples as to how his or her organization responded. Examples include:

- The Louisiana Primary Care Association (LPCA) helped coordinate emergency services of federally qualified health centers (FQHCs) at the state Emergency Operation Center during Hurricane Gustav. Federally qualified health centers provided medical services at three evacuation shelters in the northern area of the state. Unlike communication in the aftermath of Hurricanes Katrina and Rita, the staff of the Louisiana Primary Care Association were able to stay in communication with the federally qualified health centers after Hurricane Gustav. Improved communications allowed these health centers to coordinate with state emergency officials and allocate health resources where they were most needed. Communication improvements were attributed to smart phones purchased through an emergency preparedness grant for LPCA staff and FQ health center management teams. Additionally the LPCA reported that access to evacuees' pharmaceutical records greatly improved from Hurricane Katrina to Hurricane Gustav. Many of the commercial pharmacy chains began using nationwide databases, which now allow prescription records to be checked anywhere in the country. LPCA representatives indicated that the role of federally qualified health centers during hurricane evacuations was limited due to the

Health Resource Services Administration's scope of service policies that limit the service areas of such health centers. While the policies of the Bureau of Primary HealthCare do allow federally qualified health centers to provide services in adjacent areas; they do not allow the centers to completely relocate for the provision of services during an emergency. The LPCA indicated that many of the federally qualified health centers in the southern part of the state could have provided services to evacuees in the northern areas if it had been permissible.

- Participants from the Bureau of Primary Care and Rural Health reported that they were reassigned to disaster response duties for 3-5 days after Hurricanes Gustav and Ike. State employees were reassigned to programmatic services such as processing assistance claims. Staff members from the state did not specifically work to coordinate the services of other safety net providers after the disaster. Instead, they provided relevant information to the state's Emergency Operation Center about health care resources that were available to assist in recovery efforts.
- The Maternal and Child Health Program served as a safety net for the provision of food and personal care items for infants and toddlers in areas that were impacted by Hurricane Gustav. The Maternal and Child Health program and the WIC Program worked collaboratively to provide formula to infants in shelters during the hurricanes and to ensure that contracts for appropriate food provisions for infants were included in the state's emergency preparedness and response plan. The MCH program's public health nurses and medical staff provided direct care services at state special needs shelters. Many of the emergency response roles the state employees filled were not

part of a plan but rather the response to requests for help from other departments in the state.

- The HIV/AIDS program staff primarily helped coordinate services for their clients who evacuated. Clients were provided with list of agencies outside of the impacted areas. Unlike Hurricanes Katrina and Rita, the program was able to maintain contact with a majority of clients after Hurricanes Ike and Gustav. Additionally, the HIV/AIDS program had a secure access website that allowed clients to find HIV/AIDS services in surrounding communities. The HIV/AIDS Program Part B (HAP Part B) implemented procedures to improve access to patient information by using remote servers outside of New Orleans to backup patient data. The HAP program also had a chain of command during emergencies that delegated responsibility to managers in Monroe during emergency events. This allowed the organization to have continuity of care during Hurricane Gustav. Additionally, the HAP program encourages patients to maintain personal evacuation plans with prescription information. The program uses a secure website for clients to access their health information and locations of HIV/AIDS services that are open after emergency events.

Similar Services

This study hypothesizes that many of the services provided by safety net providers are similar to services needed after emergency events. Study participants reported an increase in the demand of safety net services after Hurricane Gustav. The increase in demand was especially evident in the northern areas of the state where many

of the coastal communities evacuated. Participants noted that the medical needs of individuals in general population evacuation shelters were often under-treated chronic conditions such as diabetes, hypertension, or asthma. Although specific data was not available for medical conditions of the evacuees, providers reported that their medical needs were similar to the medical needs of their patient base. Also, participants noted the difficulty of designating the use of shelters for specific medical needs. It was also difficult to perform the necessary triage of evacuees prior to boarding them on busses as providers worked to rapidly evacuate the large population. The Louisiana Primary Care Association reported that patients with special health care needs often chose to stay in general population shelters to remain with their family members. The federally qualified health centers played an important role in providing medical services to these general population and faith-based shelters. These centers were able to provide services to multiple smaller shelters by using mobile medical units. Unfortunately, there were not enough of these mobile medical units to meet the demands of small faith based shelters in the northern part of the state.

The Maternal and Child Health program reported that their ongoing public education efforts on the topics of child safety and injury prevention are beneficial to families during emergencies. Additionally, they work closely with the families of special needs children to ensure continuity of care after emergency events. MCH assessments of children's medical and social needs are a starting point for the development of evacuation plans. The program also provides assistance for evacuation shelters to gather supplies for children staying there; such as cribs, infant formula, and disposable diapers.

The LPCA participants reported that there were no toys to entertain children at the shelters, which caused children to become restless. Some of the boredom was alleviated when the Southwest Area Health Education Center (SWAHEC) provided coloring books to children in the shelters.

Emergency Management Plans

This study hypothesized that lack of inclusion in emergency management plans hinder health care safety net providers participation in emergency response and recovery efforts. Review of emergency management plans found that health care safety net providers are not specifically mentioned in emergency management plans. Plans tend to focus more on critical care services, such as hospitals, nursing homes, emergency rooms, and special needs populations during evacuations. Emergency plans also delegate the responsibility of general health care services during emergencies to local government. The Louisiana state plan (2009) states, "*The parishes shall have primary responsibility for their citizens to include addressing health and medical activities and needs."* Since many of the health care safety net providers in Louisiana are independent agencies rather than part of the local health department they are often overlooked during emergency planning sessions.

Participants attributed difficulties coordinating with emergency response activities to being geographically separate. Louisiana's state offices are located in both New Orleans and Baton Rouge. Geographic separation limits the day to day contacts and reduces the opportunity to work closely with each other. One additional difficulty is that agencies have affiliations with separate networks of providers. Health network

affiliations, including the state HIV/AIDS program, work with the Louisiana State Hospital system. The Primary Care Association works with the health center network. The material and child health program works within state and parish public health units, and rural health association work with rural health clinics. Separate provider networks limit the opportunities for safety net providers to work together on a routine basis and maintain an ongoing dialog. They also create a challenge in coordinating safety net functions because the Emergency Operations Centers must contact multiple providers rather than contact one entity.

In 2006, the LPCA consummated collaborative agreements with the State Office of Public Health (OPH). These agreements were then incorporated into the State Emergency Preparedness (EP) Plan, Section 8 - Health Care Services. In 2007, then LPCA expanded its role in the State plan and defined the roles and services of community health centers in the plan, including a formal memorandum of agreement (MOA) with the state. This outlined the LPCA's support for Critical Transportation Need (CTN) shelters during emergencies. Four community health centers created agreements to provide medical assistance at critical transportation need shelters. An additional MOA included provisions for the LPCA to provide support to the Emergency Operations Center (EOC) and federally qualified health centers as local points of dispensing for pharmaceuticals. In 2008, the LPCA was added to the State Pandemic Influenza Plan as a collaborative partner. The collaborative agreements were tested during Hurricanes Gustav and Ike when the LPCA worked with the State and community health centers to staff critical transportation need shelters in Monroe and Shreveport.

The LPCA conducted a baseline analysis of community health centers to determine the resources available during emergency events. To better facilitate the use CHC resources during emergency events, the LPCA provided National Incident Management System (NIMS) training throughout the state. The NIMS training teaches the framework of emergency management, which allows inclusion in local, state, and federal emergency response and recovery efforts.

Participants reported that they participated in multiple dry runs, emergency simulations, and table top exercises. The Maternal and Child Health program holds biannual exercise drills where it tests emergency procedures. The HAP Part B program conducts an annual training and at least one drill each year that is specific to emergency preparedness and the essential post-disaster functions of the HIV/AIDS Program. Participants are reluctant to recommend additional simulations due to time restraints. One difficulty with simulation is that they typically are not inclusive of the entire safety net system. For example, individual federally qualified health centers are often not included in statewide simulations. The HAP Part B participates in COOP activities that are organized by the Louisiana Office of Public Health or the Department of Health and Hospitals. The HAP Part B staff are nearly 100% contract employees through community based providers; thus, they are thus not obligated to respond to emergency events. Additionally, the Louisiana Office of Public Health developed a template for COOP exercises that can be used as a resource for FQHCs and Rural Health Clinics.

Participants emphasized the importance of having cascading emergency plans that incorporate aspects of the state and parish emergency plans. For example, if the parish

plan names a provider as a health care resource, then that provider should include emergency services in their plan. Safety net providers should forge close working relationships with Emergency Operations Coordinators (EOCs) and state level partners such as LPCA and LRHA. Additionally, FQHCs reported difficulties working with the Red Cross managed shelters. Due to Red Cross requirements, evacuees must leave shelter areas to receive services from the FQHCs. State plans delegate the Red Cross to manage evacuation shelters and delegate medical care to the local governments.

Participants suggested that basic training in NIMS is essential for safety net providers to be integrated in emergency response and recovery efforts. The NIMS training provides health professionals a unified emergency management language and explains the structure of emergency response efforts. Training is available on-line and is free of charge. The LPCA provided NIMS training for approximately 400 members within the past two years. Session participants felt that the training should be mandatory for agencies who receive state or federal funding. Additionally, the training should be modified to focus on the role of health care safety net providers.

Participants reported difficulties communicating with federal partners during and after emergencies. They did not know what to expect from HRSA and what assistance was available to them. They also reported that often their grant deadlines occurred at the same time as Hurricanes and deadline extensions were not available. The participants said that the inflexibility of these deadlines caused a significant amount of stress during what was already a very stressful time.

Session participants agreed that personal emergency plans are crucial, especially in medically vulnerable populations. Clients must be informed that the government has limited resources during emergencies and that the primary responsibility lies with them. Both the LMCH and HAP Part B participants reported significant strides in getting patients to have personal emergency plans. Personal emergency plans should be included as part of a care plan for medically vulnerable patients.

A greater emphasis should be placed on getting safety net providers included in community level emergency planning. A majority of the emergency responsibilities are at the community level. Community planners must maintain contacts within the existing infrastructure of their communities to distribute vaccine. In many of the rural parishes in Louisiana, FQHCs and rural health clinics are the only healthcare resources. The LMCH program noted that communities should consider keeping a minimal amount of essential supplies specifically for evacuated children. Emergency plans should also work to define what amount is considered "minimal" and include these supplies in their emergency management budgets.

The study found that each of the participating organizations have Continuity of Operations Plans (COOP) that address communication with the staff during and after emergency events. One example of a COOP communication plan is that the HAP Part B program staff are expected to check in with their designated point of contact within 48 hours following an emergency (i.e. landfall of a tropical storm or hurricane). Staff call their point of contact and leave updated contact information, their current location and their plans with the Regional HIV Coordinator for Regions VII and VIII. The HAP Part B

coordinator is located in the Monroe area and is in frequent contact with the HAP Director or a designee during emergencies. The designated HAP Part B staff person is able to relay OPH/DHH directives, updates regarding the impacted area and plans to continue adequate services. If this person is unable to perform those duties, there are two "back ups": one in Shreveport and the other in Monroe.

Chronic Conditions

This study hypothesized that reducing unmet chronic health conditions would reduce the demand for services after an emergency event. Participants reported that treating chronic health conditions was the primary medical service provided at evacuation shelters after Hurricane Gustoff. The LPCA reported that Federally Qualified Health Centers (FQHC) in Shreveport, Monroe, and Bastrop treated a significant number of evacuees with previously untreated chronic conditions. Providing healthcare services to homeless, migrant, and rural impoverished areas is similar to providing emergency response and recovery care because the populations served are often experiencing a crisis. In these populations there are the significant concerns of infectious disease, wound care, exposure, and dehydration/malnutrition. Additionally, health care safety net providers have experience providing care in mobile units rather than traditional fixed locations and have experience helping people transition from crisis to stability.

The treatment of chronic conditions was hindered by the lack of medical records for evacuees. Participants recommended a common medical records system where patients' medical records could be retrieved from anywhere in the state. If electronic medical records are not feasible, they felt practice management information from

Medicaid, Medicare, and private insurers would be useful. This would allow safety net providers to enter claims and view current prescriptions. Additionally, participants said that patients with special health care needs should consider storing health records on portable devices such medical alert bracelets or smart phones.

Participants noted several challenges of providing care after emergency events including the provision of mental health serves in rural areas, gaining access to medical records, workforce shortages and the need for interdisciplinary regional public health teams. The Louisiana Rural Health Association reported that after emergencies it is often difficult to locate a mental health provider for evacuee referrals. Therefore, rural clinics have no place to refer evacuees with serious mental health issues. The stress of emergency evacuation often amplifies mental health afflictions as these patients are psychologically or emotionally unable to cope, which makes it extremely challenging to administer the proper medical care.

Session participants reported that during emergencies additional providers are needed to maintain continuity of care for individuals with chronic conditions. However, it is difficult to assess the number of additional providers needed since the demand is determined by factors that are difficult to predict; the type and magnitude of a natural disaster or emergency. Participants noted that pre-determination of eligible health care workers is essential and discussed methodologies to pre-certify workers before emergencies. More work could be done to develop HRSA grantee networks to support each other.

Participants stressed the importance of discussing personal evacuation plans with clients who have chronic health conditions, prior to emergency events. Participants felt that some residents have a false sense of entitlement and overly rely on the government for emergency services. Safety net providers assist their clientele by creating realistic expectations regarding emergency assistance and by emphasizing personal responsibility. The LMCH program works closely with families who have special needs children to ensure that they have personal emergency plans in place and know where to receive necessary medical services if they evacuate.

Participants noted that emergency preparedness information is currently written at a reading level that may not be understood by a majority of the general population. Additionally, due to Hurricane Katrina reconstruction jobs, a significant number of residents' primary language is Spanish. The LMCH program noted that bilingual services are needed for all shelters, especially those with pregnant women, mothers, and children.

The HAP Part B program has a website, www.HIV411.org, that can be used to disseminate information to the public after an emergency. The website contains a significant amount of information on HIV/AIDS and the importance of testing.

CHAPTER 5

DISCUSSION AND POLICY RECOMMENDATIONS

Hypothesis Discussion.

The findings of the study support existing literature and government documents which identify health care safety net providers as valuable resources during and after emergency events. Participants reported greater involvement in emergency response and recovery activities for Hurricanes Gustav and Ike than Katrina and Rita. The increase in emergency response involvement is attributed to a statewide focus on emergency preparedness. Emergency response activities performed by the safety net providers included direct medical services, coordination of response activities, assistance to state emergency management agencies, and client assistance. All of the participating organizations had Continuity of Operations Plans (COOP) in place and participated in emergency table top exercises and simulations.

This study strongly supported the hypothesis that safety net providers participate in emergency response and recovery efforts. The study results found that each of the healthcare safety net providers participated in emergency response activities although the activities were not specifically recognized in state emergency planning documents. The study found that safety net organizations worked closely with their existing clients during disaster events and focused on continuity of operations. For example, the State HIV/AIDS program coordinated clients' medical services through an office in Monroe and a secure website during the evacuation for Hurricane Gustav. The study found that a significant amount of emergency care was provided by health centers. This is consistent

with literature that describes heath centers providing treatment to over 19,300 evacuees in Louisiana after Hurricane Katrina. An estimated 70,000 evacuees from Hurricanes Katrina and Rita were treated by health centers across the country (NACHC, 2006). Clinics throughout the state of Louisiana provided assistance to evacuee shelters and FEMA trailer communities (LPCA, 2007). Currently, there is no literature that specifically documents the amount of emergency services cumulatively provided by safety net providers. To determine the cumulative amount of emergency services provided for emergency events, HRSA would need to include emergency services in their data collection tools.

The study supported the hypothesis that services provided by healthcare safety net providers are similar to the healthcare services that are needed during emergency response and recovery efforts. Participants reported that they provided a significant amount of non-critical/primary care services after Hurricanes Gustav and Ike. The primary care provided by the safety net providers reduced the amount individuals seeking medical care at emergency departments. Access to primary care reduces the rate of avoidable emergency department visits and health centers are a major source of primary care for the nation's uninsured. Research has found a 25% reduction in uninsured emergency department visits attributed to the use of health centers (Rust, 2009). Safety net providers can directly benefit emergency response efforts by enhancing medical surge capacity and providing culturally competent health care providers for health incidents. Federally qualified health centers are especially beneficial to emergency response efforts because they provide comprehensive primary care, mental health and dental care, and are

located in rural or medically underserved areas. The Bureau of Primary Healthcare clearly defines health centers' emergency management expectations in a Policy Information Notice (PIN). The PIN requires health centers to work with their local governments on emergency planning.

The study supported the hypothesis that the structure of emergency management plans hinders healthcare safety net providers' inclusion in emergency management. State emergency plans do not specifically include healthcare safety net providers as a resource for emergency response and recovery. The plans delegate the responsibility of providing medical care to local governments and the operation of shelters to the American Red Cross. Local governments are often not aware of the resources and capabilities of the health care safety net providers. The lack of coordination of healthcare services at the local level impacts the ability to respond to emergency events (McKenna, 2006) (DHHS, 2009). Coordinating the health centers response to emergencies is limited by restrictions on the Federal Torts Claims (FTC) coverage (Katz, 2008). Health centers have limitations on FTC coverage outside of their defined service areas. This limits the ability of health center resources to be allocated for areas of the state that need additional medical personnel.

The study supported the hypothesis that unmet chronic health conditions addressed the demand for emergency services. Responders to Hurricanes Katrina and Rita found that much of the medical care they provided was for previously untreated chronic conditions (Health Affairs, 2006). Health centers enhance the accessibility and continuity of care, which is associated with improved self-reported health status (Shi,

2002). Preventive care at health centers was found comparable to or better than care delivered elsewhere, as measured by reduced hospitalizations and emergency department visits, higher vaccination rates and higher cancer screening rates (Hicks, 2006).

Participants' Policy Recommendations

The session generated multiple policy recommendations to enhance safety net providers' participation in emergency preparedness activities. Participants expressed the importance of developing on-going partnerships with federal, state, local and other non-profit organizations prior to emergency events. They felt that pre-existing partnerships help to facilitate emergency response activities.

Foster partnerships between safety net programs

Participants recommended forging stronger partnerships between safety net programs. This could be accomplished by developing a list of regional safety net providers to give to evacuating clients. Mutual aid agreements would formalize agreements to share patient information and resources during emergencies. Additionally, participants recommended drills and simulations that would include multiple healthcare safety net programs as well as delegated liaisons in the state emergency planning areas for all safety net grantees. The liaisons would ensure that safety net providers are included in the state planning process and work to coordinate local planning efforts. In general, the participants felt that they could have a greater impact collectively than individually.

Strengthen emergency contacts between state and federal partners.

Participants felt that their ability to respond to emergency events could be improved through better contacts with state and federal partners. Communication with federal partners is essential because the participants receive direct funding from the federal government and activities are impacted by federal funding requirements. To improve communications, participants recommended holding an all HRSA grantee meeting for Louisiana. The meeting would include sessions on emergency preparedness and opportunities for future partnerships. HRSA's Emergency Coordinator could be invited to the meeting to discuss HRSA's emergency response roles. The all-grantee meeting should be followed up with routine conference calls to discuss relevant information between the Dallas Regional Office and state level HRSA grantees. During the calls, contacts should be identified between state level HRSA grantees and the HRSA Dallas Regional Office. On a national level, participants requested that a session on emergency preparedness and planning be held during the annual HRSA all-grantee meetings in Rockville, Md. Project Officers (PO) could be included in the session to discuss communication between POs and grantees during emergency events. Clarification could be provided on HRSA's emergency communication policies/procedures. Furthermore, the participants recommend that federal partners work to incorporate additional safety net providers in to the discussion of emergency planning. Other HRSA grantees included the Area Health and Education Council (AHEC), university based programs, Ready Responders and local government emergency planning

officials. Discussions would broaden the healthcare safety net contacts in emergency response.

Continue to strengthen individual, local, and individual grantee emergency preparedness.

Study participants recommended continuing efforts to strengthen individual and local grantee emergency preparedness by holding learning sessions on emergency preparedness planning at conferences. A focus should be placed on strengthening connections between all grantees, local governments, and other safety net providers in regions. Regional partnership sessions could be held in areas with significant health disparities such as the Monroe/Northeast Louisiana area with a focus on access to healthcare. Healthcare safety net providers could also work together to develop a standardized personal evacuation plan for clients with special medical needs. The plan would direct evacuees to safety net providers outside of the impacted areas.

Provide greater flexibility to respond to emergencies.

Participants from the Primary Care Association felt that service area regulations hinder the ability of health centers to respond to emergency events. Allowing greater flexibility would let health centers have a greater impact on emergency response activities. Currently, the Bureau of Primary Health Care's Policy Information Notice # 2007-15 "Health Center Emergency Management Expectations" (2007) only allows health centers to work in adjacent parishes of their defined service area. The Primary Care Association felt that health centers in the southern portion of the state, areas that are more directly impacted by hurricanes, could provide services to those who have

evacuated to the northern area of the state. Shifting resources to the north would allow these health centers to provide services where the demand for services is the greatest. Additionally, participants recommended the formation of a volunteer group that could assist federally qualified health centers during emergency events. This group would be similar to the national mutual aid agreements that fire department use for emergencies. Participants said that a potential role for safety net providers is that of a mobile health unit which could provide assistance at multiple shelters and faith-based organizations after emergency events. Mobile medical units could allow these health centers the flexibility to work outside of their area and provide services where they are most needed. When mobile medical units are not being used for emergency response they could provide services at schools or for homeless populations. Multi-disciplinary teams could enhance services on mobile units by providing health care services such as mental health services and social services.

Define the responsibilities of the American Red Cross in terms of medical care in shelters

Currently, the state plan delegates the operation of evacuation shelters to the American Red Cross. For health centers to operate in the shelters, they need to have pre-existing agreements with the Red Cross, Agreements which should be made at the national level to avoid duplication between the states.

Enhance and expand emergency preparedness training

Participants indicated that emergency response could be enhanced by training healthcare safety net providers in the National Incident Management System (NIMS). This would provide the organization a frame work for understanding state and federal

emergency management activities. The training is free on the Federal Emergency Management Administration website. Ideally, participants recommended that all state and federally funded organizations take the basic NIMS course.

Improve emergency preparedness at the local level

Participants recommended the promotion of the Louisiana Volunteers in Action (LAVA) program. LAVA registers volunteers to provide service during and after emergency events. LAVA coordinators could contact HRSA's Ready Responders Program to ensure that existing ready responders are included in the LAVA program. They could also work with state emergency officials to ensure that LAVA volunteers be placed in health centers and rural health clinics and promote joint emergency management planning between safety net providers and local communities. LAVA must also remind local communities of their responsibilities to coordinate health services during and after emergency events.

Researcher Policy Recommendations

The study clearly found that the healthcare safety net providers participate in emergency response activities; although, their response activities are not formally recognized or specifically directed by state emergency operations. Louisiana healthcare safety net providers should continue to formalize their emergency operations with the state through mutual aid agreements. The agreements can specify specific emergency functions for health care safety net providers. Since much of the emergency public health responsibilities are delegated to the local government, safety net providers should also work to strengthen their connections with local emergency management planners. This

can be accomplished by participating in emergency drills and table top exercise at the local level.

Health centers should continue to increase their ability to provide mobile health care services. Mobile health care units would provide health centers flexibility in responding to emergency events. Mobile medical resources could be used routinely at schools, homeless shelters, or public events. Participation in public events would help increase exposure for health centers in their local communities.

Additional research is needed to understand the current relationship between safety net systems and emergency management. Research would identify additional avenues for partnerships and best practices. An analysis of the healthcare safety net's available emergency resources would help promote the benefits to the emergency management community.

Study Limitations

Limitations of the study include the participants' lack of knowledge regarding the state as well as national emergency preparedness infrastructure. A second limitation is the ever-evolving and mutative nature of determined emergency planning activities. As these plans frequently change to adapt to various criteria, they become increasingly more difficult to study. Survey responses as well as the issues discussed during on-site sessions varied widely, based largely on the participant's familiarity with emergency management activities.

Participants from state agencies had extensive knowledge of state-level planning and tended to work closely with state emergency operations, while participants from programs that were managed by local government had much greater integration with municipal or parish level planning. Likewise, participants from associations and universities viewed emergency preparedness from an "individual entity" perspective, with procedures separate from state and local emergency plans. Frequently during the on-site discussions, representatives from the various agencies had to explain the emergency response process that is specific to their organization. The variance between these viewpoints and knowledge levels made it difficult to establish a baseline or "control" criteria for the study.

A second difficulty was observed with the review of various emergency preparedness plans. As these plans adapt to meet the ever-changing needs of each organization's constituents, trying to study them became akin to "chasing the wind." Often participants reported that they were in the process of reviewing and modifying their plans during the study's time frame. Additionally, many of their emergency response activities were not formalized in plans as these organizations simply responded to meet the needs specific to whatever emergency arose at the time. For example, many state employees reported that they were asked to assist other programs after Hurricane Gustav, where their assignments were given based on immediate needs rather than those outlined in emergency planning documents.

A limitation of this study design is that it is not universally applicable since it only studies the State of Louisiana. Structure of the health care safety net system and state emergency management operations vary by state. Louisiana is different due to the unique social and economic structure of the state. Additionally, the heavily populated areas of the state are near the cost in the New Orleans/Baton Rouge areas. Much of the rest of the state is rural. Difficulties occur when evacuating urban areas to rural areas that do not have sufficient infrastructure to support the increase in population.

Conclusion

Healthcare safety net providers are slowly being integrated into Louisiana's emergency management infrastructure; however, there is still need for further integration. Many of the study participants worked with state emergency management officials during the response and recovery efforts for Hurricanes Gustav and Ike. The Louisiana Primary Care Association formalized its relationship with state emergency operations through memorandums of understandings, which outlined the emergency services health centers could perform. The state HIV/AIDS and Maternal and Child Health Programs made significant advancements in improving the continuity of care for their clients. These initial steps should be used as a starting point for further integrations with state emergency management operations.

The rapid growth of health centers over the past decade warrants additional research as to how the personnel and existing infrastructure can be used for emergency response and recovery efforts. To accomplish this, it will require additional coordination with federal, state and local emergency management officials. The growth of the

healthcare safety net will not only improve the health of low income and medically underserved communities but also help keep the general population healthy during emergency events. The Health Resources and Services Administration may want to consider providing grant funding to the State Primary Care Associations (PCAs) and the National Primary Care Associations (NPCA) for emergency management coordination. Funding state and national partners will help formalize emergency management contacts within the health center framework. Currently the PCA receives coordination funding for the reduction health disparities and work force development. Coordination of emergency management would be natural fit for most PCAs. Additionally, the HIV/AIDS Bureau should consider providing specific funding for emergency management activities for the State HIV/AIDS Program. Coordination emergency services for individuals with HIV/AIDS could be efficiently done at the state level. Currently most states maintain databases of publicly funded HIV/AIDS laboratory tests and medical care for individuals.

This database could be expanded to help facilitate emergency information. Health care safety net providers are slowly being integrated into Louisiana's emergency management infrastructure; however, there is still need for further integration. Many of the study participants worked with state emergency management officials during the response and recovery efforts for Hurricanes Gustav and Ike. The Louisiana Primary Care Association formalized relationship with the state emergency operations through memorandums of understandings, which outlined emergency services health center could perform. The state HIV/AIDS and Children and Maternal Health Programs made significant advancements in improving continuity of care for their clients. These initial

steps should be used as a starting point for more further integrations with state emergency management operations.

The rapid growth of health centers over the past decade and additional funding under the Health Care Reform warrants additional research how the personnel and infrastructure can be used for emergency response and recovery efforts. To accomplish this it will require additional coordination with federal, state, and local emergency management officials. The growth of the heath care safety net will not only improve the health of low income and medically underserved communities but also help keep the general population healthy during emergency events. The Health Resources and Services Administration may want to consider providing grant funding to the State Primary Care Associations (PCAs) and the National Primary Care Associations (NPCA) for emergency management coordination. Funding state and national partners will help formalize emergency management contacts within the health center framework. Currently the PCA receive coordination funding for reduction health disparities and work force development. Coordination of emergency management would be a natural fit for most PCAs. Additionally, the HIV/AIDS Bureau should consider providing specific funding for emergency management activities for the State HIV/AIDS Program. Coordination emergency services for individuals with HIV/AIDS could be efficiently done at the state level. Currently most states maintain databases of individuals on publicly funded HIV/AIDS laboratory test and medical care. This data base could be expanded to help facilitate emergency information.

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APPENDIX A: LOUISIANA'S HRSA INVESTMENTS AND EMERGENCY RESPONSE BENEFITS OVERVIEW

Appendix 1. Louisiana's HRSA Investments and Emergency Response Benefits

Primary Care *(Funding $28,271,136)**

- **Program Description:** Primary care funding supports states, territories, and community organization to expand access to primary care for underserved populations. HRSA currently funds 25 primary care grants in Louisiana including 23 Federally Qualified Community Health Centers (FQHCs) with 109 service delivery sites. In the past six years, FQHC's capacity to provide health care services significantly increased. The number of FQHC's patients increased from 101, 278 users in 2004 to 149,269 users in 2007. FQHCs specialize in providing services to at-risk populations such as homeless and migrant populations and often have mobile medical capabilities.
- **Emergency Response Resources:** Primary care grantees can directly benefit emergency response efforts by enhancing medical surge capacity and providing culturally competent health care providers for health incidents. FQHCs are especially beneficial to emergency response efforts because they provide comprehensive primary care, mental health, and dental care, and are located in rural or medical underserved areas.

Health Professions *(Funding $6,536,303)**

- **Program Description:** Health professions funding supports innovations and targeted expansions in health professions education and training. The funding emphasizes diversification of the health care workforce and prepares health care providers to serve diverse populations and to practice in medically underserved communities.
- **Emergency Response Resources:** Health professions programs could directly benefit emergency response efforts by increasing the healthcare workforce's competency in providing services during and after emergency events.

HIV/AIDS *(Funding $44,285,503)**

- **Program Description:** The Ryan White Program funds primary care and support services for individuals living with HIV disease who lack health insurance and financial resources for their care. Grants fund medical, dental, and support services; state and territorial efforts to develop and enhance comprehensive, community-based care; outpatient HIV early intervention services and ambulatory care; and access to clinical trails and research.
- **Emergency Response Resources:** Ryan White funded programs can directly benefit emergency response efforts by incorporating at-risk populations into emergency planning and preparation activities. Additionally, Ryan White program employs a significant number of epidemiologists who can be called upon during emergency events such as pandemic influenza events.

Maternal and Child Health *(Funding $17,880,295)**

- **Program Description**: Maternal and Child Health (MCH) funding enables states to provide services that increase access to health care services for mothers and children and programs aimed at reducing infant mortality. Furthermore, MCH funds programs that reduce the incidence of preventable diseases and handicapping conditions among children. Services for children with special health care needs are coordinated through family-centered and community-based systems of care.
- **Emergency Response Resources:** MCH funded program can directly benefit emergency response efforts by incorporating at-risk population into emergency planning and preparation. Also, MCH programs can provide technical expertise in care of children with special health needs during emergencies and in shelters.

Rural Health *(Funding $2,540,419*)*

- **Program Description:** The goal of rural health funding is to assist States in strengthening rural health care delivery systems by creating a focal point for rural health within each state. Rural health grants provide funding for health organizations to work collaboratively on health issues impacting rural populations.
- **Emergency Response Resources:** Rural health funding can directly benefit emergency response efforts by forming collaborative effort between health care providers in rural areas. Rural health programs can also be used to enhance technology that improves communication between rural providers.

** Funding is for 2008 and does not included American Reinvestment and Recovery Act (ARRA) funding*

APPENDEX B: EMERGENCY SUPPORT FUNCTIONS AND EMERGENCY SUPPORT COORDINATORS

ESF #1 – Transportation **ESF Coordinator: Department of Transportation**
• Aviation/airspace management and control • Transportation safety • Restoration and recovery of transportation infrastructure • Movement restrictions • Damage and impact assessment
ESF #2 – Communications **ESF Coordinator: DHS (National Communications System)**
• Coordination with telecommunications and information technology industries • Restoration and repair of telecommunications infrastructure • Protection, restoration, and sustainment of national cyber and information technology resources • Oversight of communications within the Federal incident management and response structures
ESF #3 – Public Works and Engineering **ESF Coordinator: Department of Defense (U.S. Army Corps of Engineers)**
• Infrastructure protection and emergency repair • Infrastructure restoration • Engineering services and construction management • Emergency contracting support for life-saving and life-sustaining services
ESF #4 – Firefighting **ESF Coordinator: Department of Agriculture (U.S. Forest Service)**
• Coordination of Federal firefighting activities • Support to wildland, rural, and urban firefighting operations
ESF #5 – Emergency Management **ESF Coordinator: DHS (FEMA)**
• Coordination of incident management and response efforts • Issuance of mission assignments • Resource and human capital • Incident action planning • Financial management
ESF #6 – Mass Care, Emergency Assistance, Housing, and Human Services **ESF Coordinator: DHS (FEMA)**
• Mass care • Emergency assistance • Disaster housing • Human services
ESF #7 – Logistics Management and Resource Support **ESF Coordinator: General Services Administration and DHS (FEMA)**
• Comprehensive, national incident logistics planning, management, and sustainment capability • Resource support (facility space, office equipment and supplies, contracting services, etc.)

ESF #8 – Public Health and Medical Services **ESF Coordinator: Department of Health and Human Services**
• Public health • Medical • Mental health services • Mass fatality management
ESF #9 – Search and Rescue **ESF Coordinator: DHS (FEMA)**
• Life-saving assistance • Search and rescue operations
ESF #10 – Oil and Hazardous Materials Response **ESF Coordinator: Environmental Protection Agency**
• Oil and hazardous materials (chemical, biological, radiological, etc.) response • Environmental short- and long-term cleanup
ESF #11 – Agriculture and Natural Resources **ESF Coordinator: Department of Agriculture**
• Nutrition assistance • Animal and plant disease and pest response • Food safety and security • Natural and cultural resources and historic properties protection • Safety and well-being of household pets
ESF #12 – Energy **ESF Coordinator: Department of Energy**
• Energy infrastructure assessment, repair, and restoration • Energy industry utilities coordination • Energy forecast
ESF #13 – Public Safety and Security **ESF Coordinator: Department of Justice**
• Facility and resource security • Security planning and technical resource assistance • Public safety and security support • Support to access, traffic, and crowd control
ESF #14 – Long-Term Community Recovery **ESF Coordinator: DHS (FEMA)**
• Social and economic community impact assessment • Long-term community recovery assistance to States, tribes, local governments, and the private sector • Analysis and review of mitigation program implementation
ESF #15 – External Affairs **ESF Coordinator: DHS**

- Emergency public information and protective action guidance
- Media and community relations
- Congressional and international affairs
- Tribal and insular affairs

APPENDIX C: PARTICIPATING SAFETY NET ORGANIZATIONS

The Louisiana State Department of Health and Hospitals, Office of Public Health, HIV/AIDS Program (HAP). HAP funds a variety of services for people living with HIV/AIDS (PLWH/A), including: contracted outpatient and ambulatory health services, oral health care, home and community-based health care, medical nutrition therapy, hospice care, food bank, housing services, emergency financial assistance, legal services, substance abuse outpatient care, and medical case management, including treatment adherence services; AIDS Drug Assistance Program (ADAP), AIDS pharmaceutical assistance, and health insurance premium and cost-sharing assistance. As of December 2008, 16,430 persons were known to be living with HIV/AIDS and 8,796 persons with an AIDS diagnosis. From 2007 to 2008, the number of PLWH/A and the number of people diagnosed with AIDS increased by 6%. African Americans continue to be disproportionately impacted by HIV/AIDS in Louisiana and represent 72% of the new HIV cases and 70% of the new AIDS cases diagnosed in 2008.

Louisiana Department of Health and Hospitals' (DHH) Bureau of Primary Care and Rural Health (Bureau). The Bureau provides for: assistance to statewide organizations in the development and delivery of comprehensive primary health care service in areas that lack adequate numbers of health professionals or have populations lacking access to primary care; and technical and non-financial assistance to community-based providers of comprehensive primary and preventive care for underserved and vulnerable populations. The Bureau is dedicated to improving the health status of Louisiana residents in rural and underserved areas by proactively working to build community health systems' capacity to

provided integrated efficient and effective health care services. The Bureau provides technical assistance to communities, federally qualified health centers (FQHC), physician practices, rural health clinics (RHC) and small rural hospitals. Through work with state partners, the Bureau is committed to developing strong community partnerships and integrated primary health services in order to reduce health disparities in the state. Additionally, the Bureau works to support effective clinical practices and health care organizations and the recruitment and retention of primary health care providers.

Louisiana Primary Care Association (LPCA), Inc. LPCA is a nonprofit organization dedicated to promote accessible, affordable, quality primary health care for the uninsured and medically underserved populations in Louisiana. The LPCA provides training and technical assistance to CHCs and other safety-net providers to support new access points, expansion of services, and enhance health centers performance. It is the state association representing 23 Federally Qualified Community Health Centers (FQHCs) with 72 service delivery sites and 1 Look-alike clinic.

City of New Orleans – Ryan White Program. City of New Orleans is the grantee and administrative agency for Ryan White Part A Minority AIDS Initiative (MAI) grant funds. The Mayor's Office of Health Policy & AIDS Funding (OHP) is the office within the City of New Orleans government charged with administering the MAI grant funds. OHP serves the eight parishes of the New Orleans Eligible Metropolitan Area (EMA),

currently estimated to include a population of 1,051,941. The New Orleans EMA contains 6150 people living with HIV/AIDS (PLWH/A), or 39% of Louisiana's caseload.

Louisiana Rural Health Association (LRHA) LRHA is an association that promotes the importance for health care in rural areas of Louisiana. Members include Rural Health Clinics (RHC) that are stand-alone practices or part of a rural hospital network. LRHA provides education services to rural health provides and advocacy for rural health services. LRHA is located in a the rural community of Napoleonville, LA, which is approximately an hour south of Baton Rouge. LRHA received a NRSA Rural health network grant to provide Medicare Part D education services to rural residents and clinics.

Louisiana Maternal Child Health Bureau. The Louisiana MCH program is administered by Department of Health and Hospitals (DHH) Maternal and Child Health (MCH) and Children's Special Health Services (CSHS) sections and is based in the Office of Public Health (OPH) Center for Preventive Health. The block grant serves the large state medically indigent population and provides personal and public health services through parish health units statewide. In addition, MCH/CSHS provides enabling, population-based and infrastructure building services. In 2008, Louisiana received $49,382,163 in MCH federal-state partnership block grant funds and served 212,827 individuals. State block grants provide: (1) basic health services for pregnant women, mothers, infants, children and children with special health care needs (CSHCN) and their families; (2)

enabling services such as transportation, translation and health education; (3) population-based services including newborn and lead screening, immunizations and injury prevention; and (4) capacity/infrastructure building services such as needs assessment, policy and standards development and health information technology.

APPENDIX D: SURVEY QUESTIONNAIRE

Louisiana Strategic Partnership Session Survey

Thank you for participating in the 2009 HRSA/OPR Strategic Partnership Session (SPS). We are excited about this year's topic, Emergency Preparedness and the Health Care Safety Net. Information gained from the SPS will benefit HRSA-funded programs and providers by helping better prepare and manage emergency events.

The SPS objectives include:

1) Enhance emergency preparedness;
2) Identify emergency preparedness best practices;
3) Expand emergency preparedness partnerships; and
4) Provide feedback and lessons learned to assist states, communities and grantees during and after emergencies.

In preparation for the SPS, a seven item performance analysis survey was developed to guide onsite discussions. Please complete the attached survey and return it to me on or before Tuesday, September 22, 2009. If you have any questions about the survey please feel free to call or e-mail me.

a. Identify the organization's emergency contact for emergency planning, coordination, and management.

b. Describe existing policies and procedures to ensure operations continuity during emergencies.

c. Describe existing policies and procedures to ensure post-emergency operations continuity.

d. How frequently does the organization participate in continuity of operations (COOP) exercise drills (monthly, quarterly, bi-annually, and annually)? Please list any HRSA-funded state COOP exercise partners.

e. Are organization emergency plans available; if so, is the plan available for HRSA SPS team review? If yes, please submit.

f. Based on experience, please identify services your organization continued providing after emergency events. What other services required modification?

g. What tips can your organization share with safety net providers about service delivery continuity during and after emergencies?

Thank you for participating in the SPS survey. If you have questions, concerns or require more information, please contact SPS Team Leader Kirk Barnes by telephone (214-767-3380) or email {Kirk.Barnes@hrsa.hhs.gov}.

APPENDIX E: ON-SITE AGENDA

Louisiana Strategic Partnership Session, Agenda October 21-22, 2009

Wednesday, October 21, 2009

8:00 – 9:00 A.M.	Continental Breakfast (provided) and Networking
9:00 – 9:15 A.M	Introduction to the SPS Session
9:15 – 10:00 A.M	Introduction of participants
10:00 – 10:15 A.M.	Break
10:15 – 12:00 P.M.	Emergency Preparedness Group Discussion: Participants post-Katrina experience with emergency planning and disaster response.
12:00 – 1:00 P.M	Lunch and networking (lunch provided)
1:00 – 3:30 P.M.	Emergency Preparedness Group Discussion: Best practices for health care safety net providers.
	Partnership and Collaboration Opportunities

Thursday, October 22, 2009

8:00 – 9:00 A.M.	Continental Breakfast (provided) and Networking
9:00 – 10:00 A.M.	Recap and discussion of emergency preparedness partnerships and collaborations.
12:00 P.M.	Adjourn