ANALYSIS OF CLINICAL SERVICES FOR POPULATIONS WITH CHRONIC CONDITIONS IN LOUISIANA EMERGENCY SHELTER SYSTEM

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Background: A growing number of recent publications related to the 2005 Gulf Hurricane Season discuss the need to protect vulnerable populations from future disasters. The unprecedented influx of evacuees who utilized the emergency shelter system in Louisiana following Katrina and Rita created challenges for public health and medical preparedness. Multiple evacuees with long-term health conditions and mental health needs living in coastal parishes ended up at general population community supported shelters. Rozeman and Mayeaux (2006) demonstrated that the first-aid approach historically used by disaster relief organizations was not adequate in large scale disasters producing overwhelming numbers of evacuees not only in need of acute care but also requiring longer term care for chronic conditions. Brodie et al (2006) found that many evacuees in Houston had chronic health conditions but no health insurance coverage and relied heavily on the New Orleans public hospital system destroyed in the storm. Some researchers focused on mental health needs prevalent at both special needs and general population shelters and argued that neither were prepared to address those needs. (Shugarman et al, 2008)

Objective: This study analyzes the need and availability of clinical services for populations with chronic conditions at general population emergency shelter system and identifies areas for improvement.

Study design and methods: A cross-sectional study of general population emergency shelters (n=168) in Louisiana using needs assessment data collected in early September 2005. Data analyses were based on the assumption that chronic health conditions are predictors of social vulnerability in emergency situations. We evaluated shelter demographics, communications, disease surveillance, clinical services, pharmaceutical registries and environmental health aspects.

Population studied: Individuals with long-term conditions and mental health needs not eligible for Special Need Shelters (SNS) operated by the state, and utilizing general population community supported shelters.

Results and discussion: Findings confirmed hypothesized vulnerability of individuals with chronic conditions who were not hospitalized or eligible for SNS. 22% of all shelter residents were reported to have at least one chronic condition, and 11% had a psychiatric disorder. The most prevalent chronic conditions were diabetes, high blood pressure and asthma/COPD. 63% of all general shelters expected to remain open for at least several more weeks, 24% were not sure, in 13% of case the population was decreasing or shelters were planning to close within a few days. Multivariate logistic regression analysis found that predictors of whether a shelter needed a short-term action included capacity, sponsorship, communications, and the number of residents with chronic conditions. 40% of the shelters reported not performing disease screening and having offsite referral system. 10% did not have any registries at all, 64% had no clinical registry. 71% did not maintain any pharmaceutical inventories and made it difficult to determine the causes of chronic conditions worsening which may have been associated with medication non-adherence. Computer-based registries were available only in 31% of the shelters, clinical database was found in one.
**Conclusions:** A standardized medical need assessment survey instrument (paper or computer based) administered to all shelter residents at the point of entry would help understand health conditions and insurance coverage of populations relying on public support. A short mental health scale incorporated in the assessment instrument would provide essential information about the individuals’ needs, as the disaster itself is a traumatic experience and could be conceded a stressor leading to post-traumatic stress disorder (PTSD) and other mental health conditions. Health information management system and drug inventories, as well as chronic disease registries have the potential to improve disaster planning for chronic care management of patients in a prolonged massive dislocation. Organizations providing sheltering operation should be integrated in a medical referral system maintaining registries for most prevalent chronic diseases.