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Community Health Centers: The Untapped Resource for Public Health and Medical Preparedness

Karen M. Wood

The last few years of our political history have witnessed the emergence of a national preparedness architecture boasting numerous plans, strategies, directives, legislation, and even more novel programs to address those issues identified therein. One of the more recent entrants to this collection includes Homeland Security Presidential Directive-21 (HSPD-21) also known as the *Public Health and Medical Preparedness Strategy*. On October 18, 2007 HSPD-21 was released to the public calling for a transformation in the national approach to public health and medical preparedness in the United States.

Like most everything else in this body of work, HSPD-21 adheres to the paradigm of the National Incident Management System (NIMS) and the National Response Framework (NRF), and elaborates on a preparedness vision conceptualized in previous strategies. The latest deliberations, as prioritized by this strategy, are to bolster the nation's ability to manage a public health crisis by stimulating improvements in the areas of biosurveillance, countermeasure distribution, mass casualty care, and community resilience; the objective being to create a much more tightly integrated systems-approach toward public health and medical preparedness. Interestingly, a huge potential component of this proposed system is already relatively well developed and continues to grow, but has been unable to garner significant preparedness support in the government's frenzy to develop wholly new entities and to indoctrinate skeptical hospitals.

As providers of critical medical and human services to vulnerable populations in medically underserved areas, community health centers (CHCs) – the untapped resource – are often recognized as indispensable and respected authority figures within their communities. As federally qualified health centers (FQHCs), regulated by the Bureau of Primary Health Care (BPHC) in the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS), the administrative infrastructure and accountability mechanisms are already in place to groom CHCs for an active and measurable role in public health and medical preparedness.

This article discusses the background of the Health Center Program and the potential roles of CHCs in relation to the *Public Health and Medical Preparedness Strategy*. Specifically, it argues that CHCs by philosophic orientation, geographic location, and as publicly funded entities,¹ are well-positioned to provide medical services, education, and other human services to prevent, prepare for, mitigate, respond to, and recover from the public health impact of a bioterrorist event or other biological disease outbreak. Ultimately, this paper contends that aggressive investment in CHCs and their emergency management programs is a dual-purpose investment that will (1) support many of the objectives identified in the *Public Health and Medical Preparedness Strategy*, and (2) create greater social equity by reducing health disparities and make public health emergency management more accessible to special needs populations.

Finally, it discusses the current state of preparedness in CHCs, identifies barriers to implementation, and presents essential recommendations to get our nation on the path to public health and medical preparedness.

THE HEALTH CENTER PROGRAM

A community health center (CHC) is a non-profit primary-care practice governed with federal support via Section 330 of the Public Health Services Act² and is strategically located in a federally-designated medically-underserved area to provide high-quality primary and preventive health care to anyone seeking care, regardless of their ability to pay. The emphasis on the underserved includes the uninsured, underinsured, Medicaid and Medicare recipients, and those without a medical home or who otherwise lack access due to travel distance, hours of operation, and cultural and linguistic barriers. The majority of patients served would fall in the classification of indigent care including migrant health and healthcare for the homeless, but CHCs also provide primary care in rural areas where services simply do not exist. Beyond the many required services that health center programs must provide and/or coordinate, most CHCs (dependent on their resources, capabilities, and the needs of their target population) directly provide pharmaceutical services, translation services, substance abuse and mental health services, and oral health services.³

According to the National Association of Community Health Centers (NACHC), there are around 1,200 community health centers with more than 6,600 delivery sites (see Figure 1) spread across all fifty states and U.S. territories providing primary care to more than 18 million patients annually.⁴ Fortunately, the Bush Administration has been fairly supportive of the Health Center Program in recent years through the *President's Health Center Initiative*. Between 2002 and 2007, the goal of CHC expansion into 1,200 additional communities was reached by doubling annual investments from \$1 billion in 2000 to nearly \$2 billion today.⁵ Even with these successes, the numbers of the medically underserved in our nation is staggering. The number of uninsured Americans is projected to reach 60 million by 2010 and another 56 million Americans lack access to primary care simply due to a shortage of physicians in their communities.⁶

STRATEGY IMPLEMENTATION: THE ROLE OF THE COMMUNITY HEALTH CENTERS

HSPD-21 or the *Public Health and Medical Preparedness Strategy* asserts that the most critical components of public health and medical preparedness include biosurveillance, countermeasure distribution, mass casualty care, and community resilience. Within each of these defined critical areas, CHCs have the potential to make significant contributions to our nation's emergency preparedness and response efforts.

This section discusses the variety of ways in which CHCs can support their emergency management networks including: biosurveillance in hard-to-reach populations, supporting local health departments by providing staff and/or facilities for dispensing countermeasures, supporting mass casualty care efforts by mitigating surge on area hospitals and health systems, and promoting community resilience by supporting the spectrum of emergency management activities.

Biosurveillance

Overwhelming evidence exists suggesting that vulnerable populations suffer the greatest during natural disasters and epidemics. According to the U.S. Commission on Civil Rights:

A crisis exists that has left a vast number of Americans, primarily the poor, women, and language, racial, and ethnic minorities, unprotected and uncared for by our nation's medical system. The current and very real threat of a biological attack has brought this crisis to the forefront of public issues necessitating immediate action.⁷

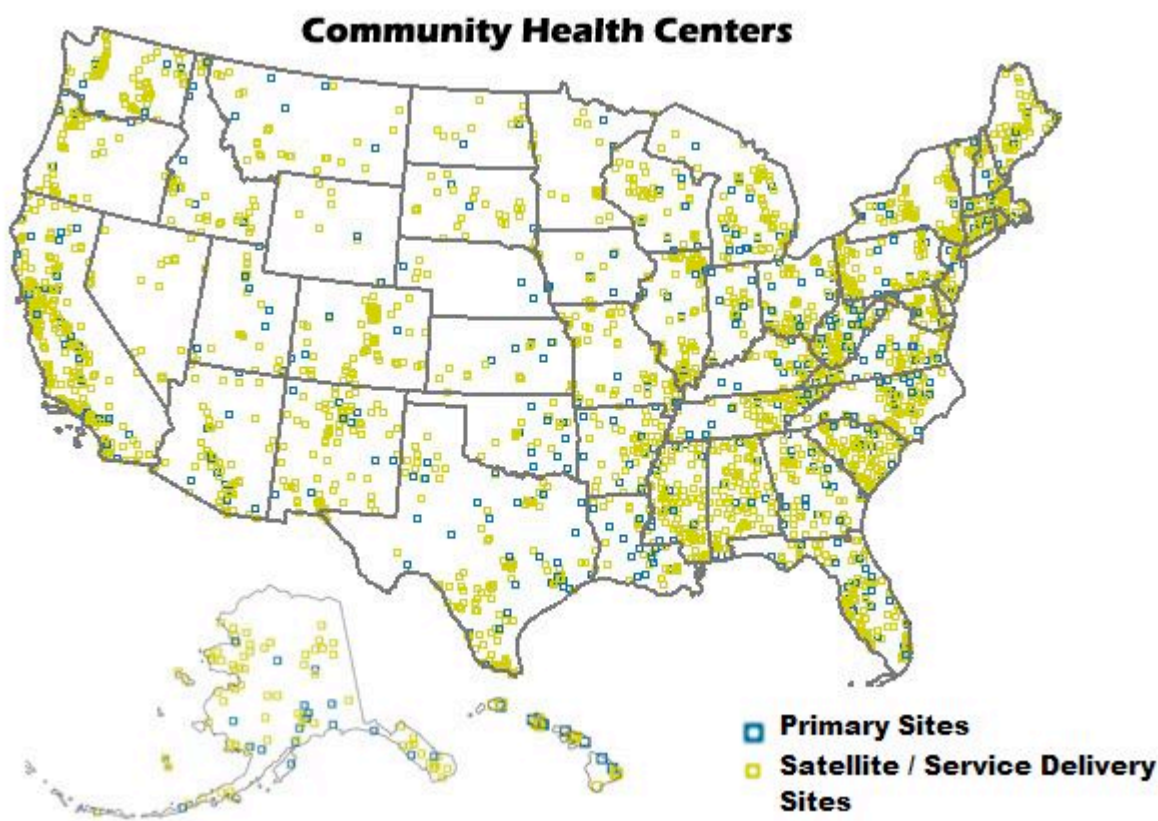


Figure 1⁸

Data Source: Health Resources and Services Administration, 2005

Patterns in susceptibility to illness and disease are unevenly stratified across socioeconomic status, racial, and/or ethnic groups. For example, Philip Blumenshine and others suggest that pandemic influenza will permeate these vulnerable populations with greater ease and speed because of financial and social constraints like limited telecommuting opportunities, financial pressures to go to work, and reliance on daycare services for childcare.⁹ Ultimately these pressures create a tendency to congregate which

is clearly dangerous for disease containment and will result in greater affliction for these groups.

Consistent with the overarching objective of CHCs to provide primary and preventive care to underserved populations, service delivery sites are logically nestled within these vulnerable populations and could be strategically utilized to enhance our nation's biosurveillance capabilities in the very populations that may be the first to signal a public health problem. Most CHCs occupy freestanding, permanent facilities while others are based in public schools, in or near hospitals and tribal communities, and still others operate seasonal programs and mobile clinics bringing their services directly to the patient. CHC services and the expertise of their clinical staff, however, often extend even beyond the immediate facility. Many CHCs partner with or are contracted by nursing homes, correctional facilities, and various shelters to provide services, as well. With this reach in their respective communities, CHCs could be leveraged as the eyes and ears of the public health community in these hard to reach populations.

The BPHC issued Program Assistance Letter (PAL) 2002-02 advising health centers to "utilize the CDC and other appropriate clinical information resources on bioterrorism to enhance the health center's ability to recognize the signs and symptoms of diseases and toxic agents that may be used in a bioterrorist attack."¹⁰ Yet for agencies that are dedicated to expanding patient services, at times operating very close to the margin, this undertaking is generally not managed in any methodical way. In 2006, Art Clawson and others surveyed Florida-based CHCs and revealed that of those respondents having an emergency operations plan, only 41 percent had written policies that addressed bioterrorism preparedness and only 56 percent discussed reporting suspicious symptoms to the county health department.¹¹ Moreover, when prompted with the question of what the center would need to respond, 80 percent of respondents reported a high-priority need for training personnel.¹²

C. Robert Kline, Jr. describes the ruinous impact of a biological attack and highlights the urgency of preparation when he states:

The stresses placed on responding to disasters, of whatever source but especially bioweapon release, strain even the best systems, and they do so for a long time with both volatile perturbations and a rapidity that is often hard to grasp. Preplanning reduces some of the stresses. Prevention is cheaper than cure.¹³

It has already been established that the public health infrastructure is overtaxed.¹⁴ Michael A. Stoto and others warn that even the threat of a localized outbreak will compel a surge in surveillance in surrounding jurisdictions.¹⁵ A surge, coupled with a slower turnaround in investigation and diagnosis for uncommon pathogens, could be an invitation for a costly recovery as opposed to the presumably cheaper alternatives of prevention and mitigation. Preparing CHCs to support biosurveillance activities and surveillance systems could be an inexpensive and effective means for bolstering the public health infrastructure during an otherwise crippling incident. All that is required to implement this valuable asset is training practitioners to recognize the clinical features of the various biological weapons agents and providing adequate and robust reporting channels to facilitate a rapid response.¹⁶

Countermeasure Distribution

When practicable, Points of Dispensing (PODs) for countermeasure distribution even for one community, much less a region, should be designated in a way that provides comprehensive coverage for an area and ensures accessibility for residents all the while ensuring sufficient space between sites and within operational areas to minimize the challenges associated with crowd control. Steven Harrison, the assistant director of emergency operations, planning and logistics for the Virginia Department of Health, further contributes that non-traditional dispensing modalities such as drive-through dispensing and institutional delivery can be used in conjunction with PODs to help reduce the number of citizens reporting to individual sites.¹⁷

In the event of a biological disease outbreak, adequate space for triage, dispensing, patient care, and counseling should be provided when possible.¹⁸ Within the POD, maintaining order through validated procedures would be necessary to ensure efficiency and prevent secondary infections where applicable. Personnel working in the PODs must be provided for in terms of their own health and safety through the provisioning of PPE and security as needed.

A discussion of CHCs as points of dispensing for countermeasures and mass prophylaxis is not a new idea and several centers have already instituted agreements with officials to serve in this capacity.¹⁹ Again, CHCs are placed in a location that deliberately and thoroughly considers the level of accessibility to the target population. Many are in urban areas, are public transit accessible (where available), are proximate to their target populations, and most offer transportation services to fill the gap.

According to Dr. Joseph V. Saitta, the emergency services coordinator for the Rappahannock Area Health District in Virginia, using the BERM model to calculate PODs and the number of people needed to staff them, would demonstrate that in many communities the typical health department could not do it alone. The health department would commit both its own staff and all available volunteers that it could muster from the Medical Reserve Corps, the regional Volunteer Organizations Active in Disaster (VOAD), and the area's Community Emergency Response Teams (CERT) to the incident. Depending on the nature, magnitude, and location of an outbreak, it is conceivable that a CHC might run a POD by itself, though the health department would make every attempt to provide staff or volunteers to help whenever possible.²⁰

The commitment to act as a POD, however, is not a matter to be taken lightly and should be preceded with a discussion of responsibilities and expectations. To be successful, a POD must be well integrated in relevant incident command systems as they will be reliant on these structures for resources and other types of support. If the CHC anticipates providing their own staff for such purposes, they should ensure that personnel are knowledgeable of the need for such measures, the threats that could surface, and the safety considerations that have been planned for on their behalf. It will require a trained staff that can appropriately communicate with patients to provide necessary information and manage patient flow. It will require an exercised triaging system that is merely a "good idea" at this early stage of development for many CHCs moving towards emergency preparedness. While just-in-time training may be provided, preparing staff in advance for this response role may convey the importance of their efforts and help to alleviate the concerns that researchers have shown as contributing to a worker's unwillingness to respond.²¹ At a minimum, CHCs serving as PODs should

engage in continuous incident command training for new staff, refresher training for existing staff, and exercises when possible to assess the site's capabilities and improve coordination in the community. Beyond these basics, personnel policies may need to be revised to encourage sick employees to stay home, well employees to report for duty, and all employees to feel secure during an incident. Clearly, sustained relationships and coordination with local health departments are the initial step for moving in this direction. Beyond these obvious partnerships, first responders as a whole would need to be educated on the role of the CHC-POD to appropriately direct citizens and provide support when needed.

Mass Casualty Care

The mass casualty care aspect of the *Public Health and Medical Preparedness Strategy* is an ambitious undertaking of the federal government and is envisioned to offer an “operational concept for the medical response to catastrophic health events that is substantively distinct from and broader than that which guides day-to-day operations.”²² The main components of this enterprise, to date, include the Modular Emergency Medical System (MEMS), the National Disaster Medical System (NDMS), and the Medical Reserve Corps (MRC).

The MEMS concept is based on the rapid organization of expandable patient care modules, and provides the structure and space to process up to 1,000 patients per day for each unit,²³ ultimately expanding capacity and directing those in need to the appropriate care. The MEMS is intended for setup near local hospitals to manage the flow of patients in a systematic way to alleviate surge on area hospitals. The MEMS requires a staff of 500 persons per twelve-hour shift representing a variety of medical disciplines to operate at full capacity.²⁴ It should also be noted that the MEMS has an important limitation of being “one practical approach to managing a major *non-communicable* incident [emphasis added].”²⁵

The NDMS on the other hand is a volunteer program implemented with the purpose of augmenting the nation's medical response capability by assisting state and local authorities in dealing with the medical impacts of major peacetime disasters.²⁶ Once activated, NDMS response personnel are federalized and are protected by the Federal Tort Claims Act (FTCA) for medical malpractice claims and have recognized credentials in any state.

Finally, the MRC is a community-based network of volunteers (similar to the NDMS) that is organized to “improve the health and safety of communities across the country by organizing and utilizing public health, medical, and other volunteers.”²⁷ MRC units are largely composed of active medical personnel from area hospitals and healthcare systems and retired medical personnel who maintain their licenses and credentialing, among other professions. MRC units have been identified at the local and state levels as possible resources for meeting part of the staffing demands to operate the MEMS until, and if, federal resources can be deployed.

While these programs may be a practical response to a number of incidents these entities could in and of themselves cause a range of unintended consequences during a pandemic illness. For the most part these programs rely on volunteers, which could present a number of challenges. For example, John B. Delaney argues that the NDMS will be proven futile during a pandemic disease outbreak and urges the federal

government, knowing of the systems limitations, to stop propagating them as a resource. Specifically, he points out that long deployments away from family and intense patient contact coupled with responders' fear for personal safety and their family's well-being will be a major deterrent for these volunteers to volunteer.²⁸ This argument should not be limited solely to NDMS. As a community resource, the MRC may be able to garner more support, but inevitably will see their resources drastically cut as well. Moreover, the counts for many of our emergency response assets may be inflated.²⁹ The NDMS and MRC depend on volunteers to function, many of whom are being double-counted because they belong to more than one volunteer emergency support program like Community Emergency Response Programs or the Red Cross.³⁰ The resource count for these systems could be further diminished during an emergency because of either an unwillingness to respond or an inability due to professional obligations in their own communities.

Pandemic by definition indicates that the response partners we would ordinarily expect to assist will be grappling with the same issues in their own communities.³¹ Activating personnel through NDMS or the MRC would be of limited use under the pandemic scenario without creating undue hardship in the practitioners' originating community and/or facility; this, of course, assumes that there even is interest from the teams. These teams may be viable under many of the national planning scenarios, but would still struggle to quickly meet the staffing demands of the MEMS.³²

By enabling CHC penetration, nurturing their emergency preparedness and response capabilities, and priming personnel for personal preparedness, CHCs can effectively and systematically help to alleviate surge pressures by acting as "alternate care sites" and tending to the needs of the "worried well" and/or "walking wounded." In some instances, CHC medical practitioners could be prepared to rapidly fill a number of the positions that the MEMS would need to function without compromising any other locales, a concept more generally referred to as "community-based surge capacity."³³

In 2007, the Office of the Press Secretary announced that it is the policy of the United States to ensure a "rapid public health and medical response that marshals all available national capabilities and capacities in a rapid and coordinated manner."³⁴ CHCs, as federally-funded entities, may be obligated to support response efforts by federal mandate. CHCs located within those jurisdictions having reformed their statutes per the Model State Emergency Health Powers Act (MSEHPA)³⁵ may be obligated to support response efforts by state mandate.³⁶ As providers of primary care services, CHCs may have a regulatory obligation, at the very least, to treat their rolls of existing patients.³⁷ Finally, those CHCs holding recognition as the sole medical provider in their respective communities may confront an overwhelming ethical obligation to provide care. Dr. D. Bradley Drawbaugh, executive director of Highland Medical Center in Virginia, further contributes that the healthcare system has been entrusted by the public to be prepared; when you betray that trust, it takes a long time to earn it back. "I've seen firsthand – the jobs lost and careers ruined when emergency preparedness is an afterthought. Crisis management is never good management when it commences during a crisis."³⁸

In the end, the will to respond is a personal decision – volunteer or otherwise. However, by actively engaging in emergency management planning as a function of the workplace, thoroughly considering the needs of employees to execute response plans, and demonstrating appropriate provisions through incident command system

integration, a CHC may be able to provide the assurance needed to compel their practitioners to respond.

Community Resilience

Perhaps the most significant contribution CHCs can offer during a catastrophic health event would be promoting community resilience in the sphere of public health and medical preparedness. By providing citizen education, coordinated risk communications, community outreach, and basic medical services, CHCs as an organized force spanning the nation could assure the worried well, tend to the walking wounded, and support the special needs populations.

The worried well can unknowingly increase infection rates by inadvertently exposing themselves and others by seeking unnecessary treatment.³⁹ CHCs could serve as triage centers or alternate care sites for the walking wounded, consequently helping to manage the demand for services on area hospitals.⁴⁰ Finally, CHCs could continue to provide the medical home their vulnerable populations have come to know and trust. Without adequate attention, each of these groups could needlessly overwhelm the lifesaving capacities that only the more advanced treatment facilities may be able to offer.⁴¹

A recent survey administered in Kentucky revealed that a doctor's office was the most frequently mentioned resource individuals would turn to for health information.⁴² While a CHC is unlikely to play a direct role in the development of needed educational and informational materials, it is prudent to embrace them as critical partners for the dissemination of such information. Dr. Karen Remley, the state health commissioner for the Virginia Department of Health, established that citizens trust their primary care physicians as the primary source of information. She continued, "We [the state] want primary care physicians to trust us as the primary source of information," but as of yet the appropriate communication channel is obscure.⁴³ Since the public-private divide permeates healthcare as it does most of the nation's critical infrastructure, resolution of this issue may continue to be elusive. In the meantime, however, it is a reasonable starting point to connect with the CHCs. State and federal agencies may utilize any number of information networks to keep citizens informed; in the end, however, the public will want this information confirmed by their medical providers.

Ultimately, CHCs may prove to be the crutch of the community by supporting the whole spectrum of emergency management activities to minimize the economic impacts and the loss of life due to a biological disease outbreak or other public health emergency.

THE CASE FOR IMPLEMENTATION

Strategically enlarging the Health Center Program and its preparedness capabilities is a dual-purpose investment: enhancing emergency preparedness by supporting the objectives identified in HSPD-21 and creating greater social equity. This section discusses the Health Center Program through a values lens and specifically considers the principles of health, justice, transparency, and accountability.

Deborah Stone offers the goals of equity, efficiency, security, and liberty as crucial objectives of policy analysis. She warns us however, that "these values are 'motherhood issues': everyone is for them when they are stated abstractly, but the fight begins as soon as we ask what people mean by them."⁴⁴ For example, ensuring security often comes at

the price of liberty; protecting liberty can equate to diminished security; and promoting equality and security through redistributive policies may, from perspectives, occur at the expense of efficiencies.

This strategy is an opportunity to move toward enhanced security while keeping infringements on liberty as minimal as possible and moving down the path already envisioned and authorized in HSPD-21 and the Public Health Security and Bioterrorism Preparedness and Response Act of 2002,⁴⁵ respectively. It is the opportunity to promote equality while relying on the existing administrative infrastructure that has made proven contributions to enhancing social equity and has been documented as possibly more efficient than some of the alternatives. Finally, the benefits, especially during a pandemic, would be more evenly distributed among the population as compared to many of the existing initiatives. According to George J. Annas and others:

Both history and current events demonstrate the need for a new, positive paradigm for pandemic preparedness, one that harnesses the talents of all Americans to take effective action to protect the health of all, instead of punishing those who fall ill. This new paradigm should be based on four fundamental principles: Health, Justice, Transparency, and Accountability.⁴⁶

The Health Center Program by creation and mission already exudes these principles. The contributions that they make to our nation's healthcare and the manner by which they are organized and regulated lend themselves to being in near perfect harmony with this paradigm.

Health and Justice

Public discourse and academic research has established that the United States is in the midst of a healthcare crisis with the number of persons presenting without medical insurance reaching dangerously high levels and impacting service delivery and the accessibility of basic healthcare.⁴⁷ This has created comparatively greater hardship for racial and ethnic minorities in this country, as was substantiated by an Institute of Medicine report documenting inequities in medical treatment among these groups.⁴⁸ Even when these individuals have the same health insurance and similar access to a health care provider as non-minorities, research indicates that minorities tend to receive a lower quality of healthcare (e.g. not receiving the needed services, receiving less desirable services) than whites.⁴⁹ Much of the argument points to the need to socialize healthcare in some form or another to reduce healthcare costs, minimize or eliminate health disparities, and provide universal access to residents of the United States. While some individuals may not view the public financing of healthcare as desirable, the social and economic costs of inequities in health are a cost shared by all.⁵⁰ For example, the Centers for Disease Control and Prevention indicates that costs associated with chronic diseases – the most common and the most costly – account for more than 70 percent of the \$1 trillion in U.S. healthcare expenditures each year.⁵¹ Chronic diseases are largely preventable diseases.⁵² Therefore, reductions in the prevalence of disease, in any population, should in turn accrue healthcare cost savings and other benefits for all. As it happens, health disparities research demonstrates vulnerable populations suffer a disproportionate share of the chronic disease burden.⁵³

As a federal program, the CHCs have made significant contributions in this domain. “Health centers are a principle strategy for anchoring accessible, high quality primary

health care in pervasively poor and uninsured communities that, without such investment, could not hope to independently attract and support sufficient private medical care practices.”⁵⁴

The same factors of quality health care accessibility that have contributed to health disparities in racial and ethnic minorities will similarly surface during a public health crisis but could potentially result in higher consequences for these vulnerable populations and the medical infrastructure as a whole. The need to systematically and concretely conduct emergency planning to meet the needs of the socially disadvantaged has been advocated by numerous researchers and emergency management professionals and is captured in a distinct course offered through FEMA’s Emergency Management Institute.⁵⁵ Fortunately, a niche profession of special-needs emergency planners has surfaced to provide leadership in this domain. Special-needs populations can be defined as “groups whose needs may not be fully addressed by traditional service providers or who feel they may not comfortably or safely access and use the standard resources offered in disaster preparedness, response, relief, and recovery.”⁵⁶ Planning for special-needs or vulnerable populations has received significant attention recently as evidenced by its inclusion in the Congressional Research Service Report, *Public Health Medical Preparedness and Response: Issues in the 110th Congress* and the *Homeland Security Programs Grant (HSPG)* guidance where it receives mention as an “area of paramount concern.”⁵⁷

A large portion of these special-needs populations comprise CHCs’ target populations and vice versa. Through expansion of the Health Center Program and dedicated funding to create robust emergency management programs within CHCs, the administration can make substantial improvements in healthcare accessibility and cost, reduce health disparities,⁵⁸ and positively improve the nation’s public health and medical preparedness. With dedicated support, CHCs could be well positioned to be fundamental agents for these groups during a public health crisis and other emergencies.

During non-emergency operations the provision of primary and preventive healthcare to underserved populations saves the system money in both the short and long term. CHCs already save the national health care system between \$9.9 billion and \$17.6 billion a year by helping patients avoid emergency room visits through better use of preventive services,⁵⁹ but an additional \$18 billion still aggregates each year from emergency room visits that could have and should have been managed through health center providers.⁶⁰ The expectation during emergency operations is that care would be more widely available to not only the special-needs populations, but to the greater population as a whole through the systematic management of the afflicted and the concerned, ultimately ensuring that those in need of specialized care will have an improved chance of access by preventing and mitigating infection and subsequent surge up front. Even without significant CHC expansion, improved coordination and integration could augment medical preparedness and response capabilities.

While risk-based programs for emergency management funding like the Urban Areas Security Initiative (UASI) or the Metropolitan Medical Response System (MMRS) are clearly warranted on some level, emergency management competencies should be established and maintained in a manner that provides a basic level of security for all.

Transparency and Accountability

As federally qualified health centers (FQHC), regulated by the Bureau of Primary Health Care (BPHC) in the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS), the administrative infrastructure and accountability mechanisms are already in place to groom CHCs for an active and measurable role in public health and medical preparedness. “The medical care services furnished by health centers are subject to extensive federal requirements, and the quality of care is carefully monitored in accordance with federal clinical care standards.”⁶¹

Every three to five years, FQHCs must reapply for funding through “Service Area Competitions” managed and administered by HRSA. Within HRSA, a number of offices impact the overall administration of community health centers, but the greatest concentration of oversight and program guidance is directed through BPHC. Meanwhile, the Healthcare System Bureau, within HRSA, is dedicated to “the facilitation of the development of state, territorial, and municipal preparedness programs to enhance the capacity of the nation’s hospitals and other healthcare entities to respond to mass casualty incidents caused by terrorism and other public health emergencies,”⁶² and is further coordinated at a higher level through the Office of the Assistant Secretary for Preparedness and Response (ASPR) located within HHS. In their article, *Emergency Management Planning as Collaborative Community Work*, Wendy A. Shafer and others warn that strictly top-down reforms “could fail to effectively leverage (or perhaps take notice at all of) locally based resources that could play useful, and perhaps critical roles in given emergency operations.”⁶³ Perhaps the viability of CHCs as an *integral* component of public health and medical preparedness was somehow lost on this large, complex bureaucracy. Nonetheless, this bureaucracy is precisely the regulatory structure that is needed to assure transparency and accountability for any country-wide preparedness initiative.

Another useful component of the Health Center Program’s administrative infrastructure is the Primary Care Association (PCA). Each state has a PCA at the service of member centers to provide training and technical assistance. HHS may be able to coordinate preparedness initiatives through the PCA to streamline the funding process, ensure consistency across programs, and actually measure progress in a meaningful way and on a scale that would support strategic planning.

BARRIERS TO IMPLEMENTATION

At this time, the BPHC has imposed a relatively ambiguous framework for emergency management programs in health centers. They mandate all-hazards preparedness yet hamper such efforts by maintaining barriers that essentially bar CHCs from progressive integration with the system. These barriers largely include inadequate funding, a restrictive regulatory environment, and ground-level integration challenges.

Policy Information Notice (PIN) 2007-15: Emergency Preparedness and the Potential Role of Health Centers in Community Response, acknowledges the health centers’ ability to support homeland security efforts and encourages them to understand and institutionalize NIMS and understand the National Response Framework (NRF) while recommending typical emergency management concepts, e.g., interagency

coordination, interoperability, proactive planning, risk communications, etc.⁶⁴ Unfortunately, *PIN 2007-15* stands to serve a much more symbolic, rather than operational, framework because funding for such preparedness activities is nominal, if existent at all. According to a recent study conducted by the National Association of Community Health Centers (NACHC), of the \$1.54 billion awarded for public health and healthcare emergency management programs nationwide in 2006, only 0.7 percent or \$11.1 million was awarded to PCAs and/or CHCs.⁶⁵ A few CHCs have been successful obtaining funding and support through the risk-based programs mentioned earlier, the CDC's Public Health Emergency Preparedness (PHEP) Cooperative Agreement, and the Hospital Preparedness Program (HPP) which specifically prompts inclusion of CHCs in planning efforts. For example, every CHC in New Jersey receives \$25,000 per year to support emergency preparedness and response activities from the HPP.⁶⁶ Their PCA is also well-funded to support this effort.⁶⁷ Similarly, Missouri CHCs receive nearly \$11,000 each per year while retaining a funded PCA.⁶⁸ Toward the other end of the spectrum, the Michigan PCA boasts only a few thousand dollars from the HPP with no direct funding to CHCs.⁶⁹ In Virginia, at the time of writing, CHCs have only just been formally approached regarding participation in the HPP. Before funding becomes a discussion topic, however, Virginia's twenty-three CHCs, representing 129 service delivery sites,⁷⁰ will need to engage in extensive fact-finding accompanied by a presumably lengthy induction with one or more of the state's six Regional Healthcare Emergency Planning Committees. With \$3.5 million of the \$11.1 million in funds (described above) being concentrated in California,⁷¹ it is safe to assume the discretionary distribution of these funds by each state has left more than a few CHCs planning in a vacuum.

To complicate matters, the subsequent PIN issued by the BPHC, *Policy Information Notice 2007-16: Federal Tort Claims Act (FTCA) Coverage for Health Center Program Grantees Responding to Emergencies*, advises that FTCA coverage for health center employees and certain contractors providing services during emergencies on behalf of the health center, is limited to adjacent jurisdictions and those areas described within the center's approved section 330-grant "scope of project" which specifies very specific sites, services, providers, target population, and service areas, but may be amended on a case-by-case basis.⁷² In essence, this means a CHC is restricted from mobilizing to respond to an incident. This policy gives little assurance to the health center attempting to integrate into this greater emergency management network, which relies on the use of mutual aid agreements (the sharing of *staff* and other resources) and commends them as a best practice.

On the other hand, *Program Information Notice 05-19: Federal Tort Claims Act Coverage for Deemed Consolidated Health Center Program Grantees Responding to Hurricane Katrina*, established the precedent of FTCA coverage flexibility during a catastrophic incident by permitting some health centers to provide services at temporary locations with looser restrictions during Hurricane Katrina.⁷³ While this PIN may provide a hint as to how things might unfold during an emergency, it is no more than a hint. This uncertainty is detrimental to a rigorous emergency management program that in theory stresses *all-hazards preparedness* and is evaluated by conducting *realistic* exercises.

The Homeland Security Exercise and Evaluation Program (HSEEP) was conceptualized in response to the directive established in HSPD-8 to establish a comprehensive training program to meet the national preparedness goal that also includes training for the nation's first responders, officials, and others with major event emergency management roles⁷⁴ and provides a robust model for creating and sustaining a progressive capabilities-based training and exercise program utilizing the Target Capabilities List (TLC).⁷⁵ Yet the investment to appropriately embrace this methodology, under the described circumstances, is difficult to justify. CHCs could support a variety of capabilities identified in the TLC. Some of the more obvious capabilities include responder safety and health, mass care, emergency triage and pre-hospital treatment, medical surge, medical supplies management and distribution, and mass prophylaxis, but could extend to fatality management as well. However, the amount of time and money that would be needed just to navigate these complex partnerships and interactions is daunting in and of itself; this of course does not even begin to encompass the commitment to properly train and exercise staff in these capabilities utilizing the HSEEP framework. Most CHCs do not receive any direct federal funding for emergency management activities and, in 2006, only an estimated twenty states had planned to fund emergency preparedness and response programs in CHCs.⁷⁶

According to Robert Housman and Ed Bethune, post 9/11 preparedness mandates are smoking guns: "vulnerability assessments that offer long lists of potential risks, large numbers of documented security flaws, and large price tags to close these gaps."⁷⁷ Tort claims are being litigated right now clarifying the "duty to prepare" and the "duty to respond."⁷⁸ Steven Gravely, J.D., M.H.A., of the Joint Subcommittee Studying the Feasibility of Offering Liability Protections to Health Care Providers Rendering Aid During a State or Local Emergency in Virginia, warns of multiple suits in Canada against health care providers and the government stemming from the failure to use infection control measures during the SARS outbreak and similar suits against providers in Louisiana alleging the failure to evacuate in a timely manner in response to Hurricane Katrina.⁷⁹ Other claims arising from these incidents include the failure to prepare, the failure to have emergency power, the failure to utilize realistic planning assumptions, and the failure to anticipate flooding and relocate generators accordingly.⁸⁰ In light of these allegations, it could be argued that the BPHC mandates have left a paper trail for tort claims in those CHCs that fail to comply with the emergency management expectations outlined in the various PINS and by other relevant regulatory agencies. Ultimately, finger pointing could make its way back to the federal government in these cases because (1) the PINs arguably contradict the emergency management fundamentals of resource support through mutual aid agreements and consequently hinder the full exploration of CHCs as potential resources for incident management; and (2) funding for the implementation of comprehensive emergency management programs in CHCs often appear to be unavailable, insufficient, or amassed by other entities whom in turn may be either unaware of or unconcerned with the role of CHCs. After all, the Health Center Program is a federal initiative.

Challenges in the CHC

Beyond the larger policy issues, CHCs may have to overcome challenges in their localities as well. For a CHC to be successful in the emergency preparedness and

response realm, it *must* be integrated in the local emergency management network. Yet achieving this needed state of integration is not always an easy feat.

Currently, the main push for emergency preparedness and response in CHCs revolves around the drafting of the EOP. While it is clear that EOPs and the process of developing the plan is the foundation of emergency management programs, it is also becoming clear that this activity in and of itself may not provide the results intended. Sang O. Choi and Ralph S. Brower conducted a study under the assumption that appropriate persons tasked with emergency management responsibilities were knowledgeable of their relevant EOPS, only to discover that this assumption was far from the truth. “Surprisingly, the majority (60.0%) of all organizations appear to understand the plan only a little.”⁸¹ Louise Comfort and Naim Kapucu add additional concern when they assert that “most public agencies have emergency plans, but they are not always current” (311).⁸² Moreover they’ve found integration inconsistencies with the plans themselves.

Although some private companies and nonprofit organizations such as hospitals and schools have emergency plans, they often are not integrated with those of the public agencies to provide a comprehensive plan for a community, much less multiple communities in an affected region.⁸³

Without the flexibility to truly integrate, CHCs may easily become stuck in the planning mode and never delve any deeper into the areas where they can make the greatest impact: personal preparedness initiatives and training to ensure an adequate and “ready” workforce capable of supporting biosurveillance efforts, countermeasure distribution, mass casualty care, and the provisioning of community education and risk communications to strive for the best outcome in their communities under the worst-case scenarios.

FEMA offers a long list of recommended activities for NIMS implementation in hospitals and healthcare systems including, but not limited to:

- The adoption of NIMS, continuous efforts to provide NIMS/ICS training, and the utilization of exercises to determine corrective actions;
- Promoting and supporting mutual aid agreements, the maintenance of inventoried response assets, and the use of integrated Multi-Agency Coordination Systems (MACs);
- The implementation of public information systems and all-hazards exercise programs.⁸⁴

Without dedicated personnel and funding, these activities will be extremely difficult for a CHC to implement and as it stands now, every dollar spent on preparedness is a dollar taken away from clinical programs.

It should not be assumed that a Local Emergency Management Committee (LEMC) has the means and foresight to include CHCs in preparedness activities and further the structure and incentive to maintain and report such progress. Many jurisdictions are overwhelmed by the challenge of achieving even basic NIMS compliance in their agencies. A study by the Colorado Community Health Network (the Colorado PCA) found that of those CHCs surveyed, those not involved in community planning had actually been rejected by the community with one respondent reportedly being told ‘We’ll call you if we need you’.⁸⁵ In contrast to this interaction, Steve Harrison asserts

that close collaboration and mutual understanding of response roles is not simply needed, but required, to effectively resolve many of the issues necessitating consideration prior to and during a public health incident.⁸⁶

Creating an emergency management program that is responsive to the needs and particular nuances of the individual CHC is a tall order. The resources and capabilities of each one can be quite varied. Some of the rural health programs, for example, may not have the staff to attend long trainings without completely shutting down their operations. Meanwhile, as the sole healthcare provider within a particular area, their facility may be the one that could benefit the most from these interactions. With cuts in Medicaid expenditures, resulting in a higher number of uninsured people seeking services, more centers struggle with their day-to-day finances, which ultimately constrains their ability to effectively undertake emergency management planning and all that a quality program entails. The case of the Eastern Shore Rural Health System (ESRHS), the most progressive CHC in terms of emergency management in Virginia, demonstrates these tensions.

In Virginia, the Eastern Shore Rural Health System (ESRHS) operates five community health centers along the eighty-mile stretch of land between the Chesapeake Bay and the Atlantic Ocean. With more than 50,000 residents, only one area hospital with 180 beds, and at least half of the population relying on ESRHS for their care, ESRHS partnered with their local health department as early as 2002 to begin emergency planning.⁸⁷ They developed relationships with the local hospital and area emergency management personnel and eventually formalized these partnerships through the creation of the Eastern Shore Disaster Preparedness Coalition.⁸⁸ ESRHS has been very active with the coalition and initially attempted to support community exercises with each of their health centers every year, but it soon became apparent that the time commitment to plan and coordinate these events was too much and that ESRHS could generally only permit one center to participate per year. Since ESRHS is very well integrated with their local emergency management network and is fairly confident in their response roles through their local ICS, the abated exercise schedule is less of a concern than the possibility of losing contact during an incident.⁸⁹

The ESRHS is probably the most capable CHC in the state (at this point) for supporting incident response and they are actually located quite close to the Norfolk UASI jurisdictions. In fact, roughly 41 percent or 2,882 CHC service delivery sites are located within candidate urban areas queried by the Department of Homeland Security as part of their overall risk methodology⁹⁰ (see Appendix for CHC counts by state and relevant Metropolitan Statistical Area). Yet FTCA guidelines would prevent them from quickly responding to an incident in most of the state's UASI areas due to the coverage guidelines discussed previously.

RECOMMENDATIONS

In *Biodefense for the 21st Century*, the United States declared that it “will continue to use *all means necessary* to prevent, protect against, and mitigate biological weapons attacks perpetrated against our homeland and our global interests” [emphasis added].⁹¹ The preceding discussion points to a means that is clearly necessary. Supporting the

Public Health and Medical Preparedness Strategy to the greatest extent possible, however, hinges on a few critical recommendations:

Remove Regulatory Barriers

The National Strategy for Homeland Security states that the nation must develop “interconnected and complementary homeland security systems that are reinforcing rather than duplicative and that ensure essential requirements are met.”⁹² In 2005 DHS announced the national priorities, in the *Interim National Preparedness Goal*, one of which includes the goal of strengthening “medical surge and mass prophylaxis capabilities by establishing emergency-ready public health and healthcare entities” and another calling for “expanded regional collaboration through mutual aid agreements and assistance compacts.”⁹³ These goals point to the development of specific capabilities and specify the means for getting there. Meanwhile, CHC participation is limited because the current guidelines for granting medical malpractice insurance through the Federal Tort Claims Act (FTCA) have all but ensured their paralysis.

First and foremost, FTCA coverage must be determined in a way that supports rather than contradicts emergency management programs. In emergency management, mutual aid agreements and memorandums of understanding provide the framework for requesting resources during an incident response. In light of these regulations, CHCs may provide supplies and equipment but are quite restricted in the use of personnel. This equates to an underutilized asset of more than 36,900 medical care providers, more than 2,700 mental health providers, and nearly 105,000 personnel in total across the U.S., providing patient services.⁹⁴ Despite this barrier, health centers treated more than 19,000 evacuees in Louisiana and nearly 18,000 in Mississippi after Hurricane Katrina – nearly 80 percent of whom did not have health insurance.⁹⁵

At a minimum, FTCA coverage should be designated in a way that permits staff-sharing between centers and their temporary sites or provides specific assurance that coverage will be extended under certain circumstances. For example, the guidelines could state that coverage will be provided during a state declared disaster for intrastate practitioners responding to a Type-2 Incident or coverage will be extended if WHO Pandemic Phase 5 is signaled.⁹⁶ This will facilitate preparedness at the local and state levels by instantly boosting medical response capabilities and will enhance preparedness at the national level by creating the flexibility and assurance for CHCs to begin integrated training and exercise programs with other stakeholders. Those CHCs formerly rejected by their LEMC, or those residing in inactive jurisdictions, could pursue alternative partners from a broader jurisdictional perspective and ultimately pursue NIMS compliance where formerly their success would have been predicated on their immediate community’s interest in and ability to integrate them. CHCs and their respective PCAs could then begin to link into Emergency Operations Centers (EOCs) and other multiagency coordination systems and vice versa with greater efficiency. Ideally, the NDMS model of FTCA coverage and recognized credentialing across state lines should be extended to CHC personnel to promote all-hazards preparedness. To reiterate, FTCA coverage for providers will only be extended when services provided are consistent with those identified in the CHCs’ “scope of project,” including sites, services, service areas, and target populations (target populations generally meaning medically underserved and/or vulnerable populations). Ironically, the threat of pandemic

influenza and the looming medical response shortage raises the probability that every citizen will be medically underserved. During a pandemic event, CHC personnel (after stabilizing their own communities) perhaps could provide temporary assistance through partner CHCs in those jurisdictions still struggling with the incident.

Enable CHC Growth to Ensure an Evenly Distributed Public Health Response

The Institute of Medicine praised health centers for providing care that is “at least as good as, and in many cases superior to, the overall health system in terms of better quality and lower costs.”⁹⁷ Moreover, Jack Hadley and Peter Cunningham suggest that CHC expansion reduces the reliance on more expensive hospital resources, ultimately improving delivery system efficiency and offsetting the costs of expanding CHC capacity.⁹⁸ Aaron Katz and others describe CHCs as well situated in some communities to be the first line of response during public health emergencies and warned that reductions in public health infrastructure investments could erode newfound capacity in community preparedness.⁹⁹ The list of various reports and research supporting CHCs goes on and on.¹⁰⁰ Denise Santiago and Anke Richter, however, caution against the reliance on “dual-use functionality” for public health preparedness pointing to the obvious assumption that the concept assumes that there were sufficient resources for “single use.”¹⁰¹ The demand for services during a public health emergency will certainly overwhelm existing capabilities. Even future infrastructure development will falter during a WMD attack or biological disease outbreak. Yet until health care accessibility provides for a more equitable distribution there should be little reservation in moving forward on capacity building. “Congress and the agencies must address the fact that many critical systems on which the nation will rely during future emergencies are already overstained. This applies in particular to health care and public health sectors.”¹⁰²

Use the Administrative Infrastructure to Promote Health, Justice, Transparency, and Accountability

PCAs, the state-level associations for CHCs, receive funding authorized under the Public Health Service Act to provide “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 services” and “technical and non-financial assistance to community-based providers of comprehensive primary and preventive care for underserved and vulnerable populations.”¹⁰³

Training and technical assistance for emergency management is quickly being added to the list of services provided through the PCA, but the breadth and quality of those programs, if implemented, will largely be dependent on their level of funding. Costly consultants can easily be brought in for a quick presentation on risk communications or personal preparedness. The challenge though is connecting those needs to the CHC and the CHC to the emergency management network and the resources to the CHC so that those needs result in implementation actions. None of this can be accomplished in a significant way if done in isolation.

The Association of State and Territorial Health Officials (ASTHO) described the following roles that PCAs could use to facilitate emergency preparedness and response:

- Represent CHCs at state emergency planning tables;
- Provide training and technical assistance to CHCs as they develop their emergency operations plan;
- Serve as the communication link between CHCs and government resources.¹⁰⁴

A more recent report by ASTHO describes partnerships forged between some state health agencies, PCAs, and CHCs to improve emergency preparedness. Some of these efforts include, but are not limited to: defining emergency response roles in California; enhancing surge capacity in Massachusetts, resource integration in Arkansas, emergency preparedness training for health centers in Maine, and infectious disease control in New York; and building health care coalitions in the state of Washington.¹⁰⁵ These successes should certainly serve as models for improving coordination and integration at the state and local levels.

Working through the PCA could be a means to facilitate the coordination and execution of many public health and medical preparedness activities through a more manageable program design. It would create another layer of accountability and positions the CHC and the PCA to take advantage of pull and push strategies for creating awareness and improving integration at the local, regional, and state levels.

CONCLUSION

If CHCs are to be contributing partners in public health and medical preparedness, funding must be made available that supports a minimum level of preparedness for all centers. With more than 36,900 medical professionals across the nation to prepare for emergency preparedness, the funding is needed and has the potential to engage a previously untapped resource.

As potential PODs for countermeasures and mass prophylaxis, certain personnel will need to take the full spectrum of NIMS and ICS training and engage in community and/or state exercises. To effectively contribute to biosurveillance or mass casualty care, certain personnel will need bioterrorism training and the opportunity to participate in relevant drills. Finally, to be a key player in community resilience, CHCs need the recognition and support from the emergency management network across agencies and all levels of government.

Even though coordination, collaboration, and communication are the mantras of emergency management, this networked vision has yet to be achieved on a large scale. Public health has only recently joined the ranks of the first responders and the titling of whom meets this classification is still gray for many even within the emergency management and homeland security professions. Including CHC representation on the occasional advisory committee without soliciting feedback, without appropriating funding to them, and without publicly acknowledging their role will do little to move the relationship forward. “Our entire response framework is predicated on a coordinated response that spreads across jurisdictions and up jurisdictional channels as resources are exhausted.”¹⁰⁶ Outside of local EMS resources, public health is not well organized to

contribute to this model and certainly not in the capacity envisioned by the Public Health and Medical Preparedness Strategy.

Expanding the Health Center Program and embracing these entities as critical partners in the *Public Health and Medical Preparedness Strategy* is a viable strategy by first striking a reasonable balance between many of our contending values, and second by staying within our comfort zone in terms of incremental policy change by relying on existing administrative infrastructure and expanding capabilities rather than creating new entities to achieve them.

The entities we do have (i.e., NDMS, MRC) cannot be held accountable to meet FEMA's training and exercise standards nor the actual response needs outlined in the nation's preparedness architecture. Hospitals are already running at or beyond capacity. According to a recent real-time congressional survey of Level I Trauma Centers, conducted by the Committee on Oversight and Government Reform, none of the hospitals surveyed had enough critical care capacity or inpatient beds available to absorb a sudden influx from a mass casualty event (the "less severely injured" were included in the counts).¹⁰⁷ It is quite possible that improved performance could have been realized had those "less severely injured" individuals been considered for treatment at nearby CHCs. Health departments have missions and responsibilities that delve into a wide array of programs, some preparedness related and many others not. Since these agencies are generally understaffed themselves, consideration must be given to other resources that are well-positioned to assist them in their preparedness and response efforts. Private physicians, medical centers, clinics, and every other healthcare system in existence *should be* incorporating emergency management programs into their operations to address those areas identified in HSPD-21. Unfortunately many of those entities do not generally have the bureaucratic structure in place to ensure transparency and accountability. When they do, their distribution does not generally reflect a system that promotes health and justice; if it did, CHCs would not exist.

According to HRSA's Elizabeth Duke "health centers have been identified by the OMB as one of the federal government's most successful programs."¹⁰⁸ Through a thoughtful revisioning that broadens the program's scope to include strategic emergency planning, CHCs – with support – can build on what they already do well to augment our nation's public health and medical preparedness capabilities.

This article is not intended to minimize the progress made over the past few years or to imply that CHCs have gone completely unnoticed – some are very well integrated and funded in their particular communities. Further, it is not intended to acclaim the Health Center Program as the sole solution to the *Public Health and Medical Preparedness Strategy*. The goal is to highlight the untapped resources that, through the proper attention to funding and development, can enhance the nation's public health and medical preparedness. CHCs can provide biosurveillance in the populations that may be the first to signal a public health emergency, by serving as PODs in those areas that are closest to special needs populations, by supporting mass casualty care efforts by mitigating surge at the onset and providing a supply of competent professionals dedicated to the public interest, and ultimately ensuring community resilience by leveraging their existing capabilities and relationships to ease their communities through a public health catastrophe. "It is the policy of the United States to plan and enable provision for the public health and medical needs of the American people in the

case of a catastrophic health event through continual and timely flow of information during such an event and rapid public health and medical response that marshals all available national capabilities and capacities in a rapid and coordinated manner.”¹⁰⁹ CHCs can be, should be, and may be front line public health responders whether they are prepared or not.

Is your Community Health Center Prepared?

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Any opinions, findings, and conclusions or recommendations expressed in this publication are those of the author and do not necessarily reflect the views of the Virginia Community Healthcare Association.

APPENDIX

CHC Prevalence in Candidate Urban Areas under the FY 2008 UASI Program			
Tier 1 Urban Areas			
State	Candidate Urban Area by Metropolitan Statistical Area ¹¹⁰	Counties and Cities ¹¹¹ Selected for Query	CHC ¹¹² Counts
CA	Los Angeles-Long Beach-Santa Ana Area	Los Angeles County	134
	San Francisco-San Jose-Bay Area	Alameda County Contra Costa County Marin County San Benito County San Francisco County San Mateo County Santa Clara County	196
DC	Washington-Arlington-Alexandria, DC-VA-MD-WV Area	All Jurisdictions	45
IL	Chicago-Naperville-Joliet Area, IL-IN-WI	Cook County DeKalb County DuPage County Grundy County Kane County Kendall County Lake County McHenry County Will County	320
IN	Chicago-Naperville-Joliet Area, IL-IN-WI	Jasper County Lake County Newton County Porter County	8
MD	Washington-Arlington-Alexandria, DC-VA-MD-WV Area	Calvert County Charles County Frederick County Montgomery County Prince George's County	15
NJ	Newark Area	Bergen County Essex County Hudson County Hunterdon County Middlesex County Monmouth County Morris County Ocean County Passaic County Somerset County Sussex County Union County	62
NY	New York-Long Island Area	Bronx County Kings County Nassau County	

CHC Prevalence in Candidate Urban Areas under the FY 2008 UASI Program			
Tier 1 Urban Areas			
State	Candidate Urban Area by Metropolitan Statistical Area	Counties and Cities Selected for Query	CHC Count
NY	New York-Long Island Area (continued)	Bronx County Kings County Nassau County New York County Putnam County Queens County Richmond County Rockland County Suffolk County Westchester County	283
PA	Newark Area	Pike County	0
TX	Houston Area	Austin County Brazoria County Chambers County Fort Bend County Galveston County Harris County Liberty County Montgomery County San Jacinto County Waller County	20
VA	Washington-Arlington-Alexandria, DC-VA-MD-WV Area	Alexandria City Arlington County Clarke County Fairfax City Fairfax County Falls Church City Fauquier County Fredericksburg City Loudoun County Manassas City Manassas Park City Prince William County Spotsylvania County Stafford County Warren County	7
WI	Chicago-Naperville-Joliet Area, IL-IN-WI	Kenosha County	1
WV	Washington-Arlington-Alexandria, DC-VA-MD-WV Area	Jefferson County	1
Tier 1 Total			1,092

CHC Prevalence in Candidate Urban Areas under the FY 2008 UASI Program			
Tier 2 Urban Areas			
State	Candidate Urban Area by Metropolitan Statistical Area	Counties and Cities Selected for Query	CHC Count
AR	Memphis Area, TN-MS-AR	Crittenden County	2
AZ	Phoenix-Mesa-Scottsdale Area	Maricopa County	26
		Pinal County	
	Tucson Area	Tucson County	54
		Pima County	
CA	Santa Ana-Anaheim-Irvine Area	Orange County	9
	Sacramento-Arden-Arcade-Roseville Area	El Dorado County	17
		Placer County	
		Sacramento County	
San Diego-Carlsbad-San Marcos Area	San Diego County	101	
	Riverside-San Bernardino-Ontario Area	Riverside County San Bernardino County	19
CO	Denver-Aurora Area	Adams County Arapahoe County Broomfield County Clear Creek County Denver County Douglas County Elbert County Gilpin County Jefferson County Park County	45
CT	Hartford-West Hartford-East Hartford Area	Hartford County Middlesex County Tolland County	42
	Birdgeport-Stamford-Norwalk Area	Fairfield County	31
DE	Philadelphia-Camden-Wilmington Area, PA-NJ-DE-MD	New Castle County	5
FL	Fort Lauderdale-Pompano Beach Area	Broward County	9
		Palm Beach County	
	Jacksonville Area	Baker County	7
		Clay County	
Duval County			
Miami Area	Nassau County	98	
	St. Johns County		
Orlando-Kissimmee Area		Miami-Dade County	5
		Monroe County	
		Lake County	
		Orange County	
		Osceola County	
		Seminole County	

CHC Prevalence in Candidate Urban Areas under the FY 2008 UASI Program			
Tier 2 Urban Areas			
State	Candidate Urban Area by Metropolitan Statistical Area	Counties and Cities Selected for Query	CHC Count
FL	Tampa-St. Petersburg-Clearwater Area	Hernando County Hillsborough County Pasco County Pinellas County	30
GA	Atlanta-Sandy Springs-Marietta Area	Barrow County Bartown County Butts County Carroll County Cherokee County Clayton County Cobb County Coweta County Dawson County DeKalb County Douglas County Fayette County Forsyth County Fulton County Gwinnett County Haralson County Heard County Henry County Jasper County Lamar County Meriwether County Newton County Paulding County Pickens County Pike County Rockdale County Spalding County Walton County	32
HI	Honolulu Area	Honolulu County	28
IN	Cincinnati-Middletown Area, OH-KY-IN	Dearborn County Franklin County Ohio County	0
	Indianapolis-Carmel Area	Boone County Brown County Hamilton County Hancock County Hendricks County Johnson County	

CHC Prevalence in Candidate Urban Areas under the FY 2008 UASI Program			
Tier 2 Urban Areas			
State	Candidate Urban Area by Metropolitan Statistical Area	Counties and Cities Selected for Query	CHC Count
IN	Indianapolis-Carmel Area (continued)	Marion County Morgan County Putnam County Shelby County	37
	Louisville/Jefferson County Area, KY-IN	Clark County Floyd County Harrison County Washington County	2
IL	St. Louis, MO-IL Area	Bond County Calhoun County Jersey County Macoupin County Madison County Monroe County St. Clair County	52
KS	Kansas City Area, MO-KS	Franklin County Johnson County Leavenworth County Linn County Miami County Wyandotte County	2
KY	Louisville/Jefferson County Area, KY-IN	Bullitt County Henry County Jefferson County Meade County Nelson County Oldham County Shelby County Spencer County Trimble County	11
	Cincinnati-Middletown Area, OH-KY-IN	Boone County Bracken County Campbell County Gallatin County Grant County Kenton County Pendleton County	21
LA	Baton Rouge Area	Ascension Parish East Baton Rouge Parish East Feliciana Parish Iberville Parish Livingston Parish	

CHC Prevalence in Candidate Urban Areas under the FY 2008 UASI Program			
Tier 2 Urban Areas			
State	Candidate Urban Area by Metropolitan Statistical Area	Counties and Cities Selected for Query	CHC Count
LA	Baton Rouge Area (continued)	Pointe Coupee Parish St. Helena Parish West Baton Rouge Parish West Feliciana Parish	21
	New Orleans-Metairie-Kenner Area	Jefferson Parish Orleans Parish Plaquemines Parish St. Bernard Parish St. Charles Parish St. John the Baptist Parish St. Tammany Parish	15
MA	Boston-Cambridge-Quincy Area, MA-NH	Essex County Middlesex County Norfolk County Plymouth County Suffolk County	114
	Providence-New Bedford-Fall River Area, RI-MA	Bristol County	5
MD	Baltimore-Towson Area	Anne Arundel County Baltimore County Baltimore City Carroll County Harford County Howard County Queen Anne's County	55
	Philadelphia-Camden-Wilmington Area, PA-NJ-DE-MD	Cecil County	1
MI	Detroit-Warren-Livonia Area	Lapeer County Livingston County Macomb County Oakland County St. Clair County Wayne County	20
MN	Minneapolis-St. Paul-Bloomington Area, MN-WI	Anoka County Carver County Chisago County Dakota County Hennepin County Isanti County Ramsey County Scott County Sherburne County Washington County Wright County	49

CHC Prevalence in Candidate Urban Areas under the FY 2008 UASI Program			
Tier 2 Urban Areas			
State	Candidate Urban Area by Metropolitan Statistical Area	Counties and Cities Selected for Query	CHC Count
MO	Kansas City Area, MO-KS	Bates County Caldwell County Cass County Clay County Clinton County Jackson County Lafayette County Platte County Ray County	14
	St. Louis, MO-IL Area	Crawford County Franklin County Jefferson County Lincoln County St. Charles County St. Louis City St. Louis County Warren County Washington County	56
MS	Memphis Area, TN-MS-AR	DeSoto County Marshall County Tate County Tunica County	4
NC	Charlotte-Gastonia-Concord Area, NC-SC	Anson County Cabarrus County Gaston County Mecklenburg County Union County	12
	Norfolk-Virginia Beach, Newport News Area, VA-NC	Currituck County	0
NH	Boston-Cambridge-Quincy Area, MA-NH	Rockingham County Strafford County	29
NJ	Philadelphia-Camden-Wilmington Area, PA-NJ-DE-MD	Burlington County Camden County Gloucester County Salem County	20
NV	Las Vegas-Pardise Area	Clark County	13
NY	Albany-Schenectady-Troy Area	Albany County Rensselaer County Saratoga County Schenectady County Scholarie County	9
	Buffalo-Niagara Falls Area	Erie County Niagara County	4

CHC Prevalence in Candidate Urban Areas under the FY 2008 UASI Program			
Tier 2 Urban Area			
State	Candidate Urban Area by Metropolitan Statistical Area	Counties and Cities Selected for Query	CHC Count
NY	Rochester Area	Livingston County Monroe County Ontario County Orleans County Wayne County	31
	Syracuse Area	Madison County Onondaga County Oswego County	22
OH	Cincinnati-Middletown Area, OH-KY-IN	Brown County Butler County Clermont County Hamilton County Warren County	49
	Cleveland-Elyria-Mentor Area	Cuyahoga County Geauga County Lake County Lorain County Medina County	11
	Columbus Area	Delaware County Fairfield County Franklin County Licking County Madison County Morrow County Pickaway County Union County	12
	Toledo Area	Fulton County Lucas County Ottawa County Wood County	9
OK	Oklahoma City Area	Canadian County Cleveland County Grady County Lincoln County Logan County McClain County Oklahoma County	13
OR	Portland-Vancouver-Beaverton Area, OR-WA	Clackamas County Columbia County Multnomah County Washington County Yamhill County	76

CHC Prevalence in Candidate Urban Areas under the FY 2008 UASI Program			
Tier 2 Urban Area			
State	Candidate Urban Area by Metropolitan Statistical Area	Counties and Cities Selected for Query	CHC Count
PA	Philadelphia-Camden-Wilmington Area, PA-NJ-DE-MD	Bucks County Chester County Delaware County Montgomery County Philadelphia County	37
	Pittsburg Area	Allegheny County Armstrong County Beaver County Butler County Fayette County Washington County Westmoreland County	58
PR	San Juan-Caguas-Guaynabo Area	Aguas Buenas Municipio Aibonito Municipio Arecibo Municipio Barceloneta Municipio Barranquitas Municipio Bayamon Municipio Caguas Municipio Camuy Municipio Canovanas Municipio Carolina Municipio Catano Municipio Cayey Municipio Ciales Municipio Cidra Municipio Comerio Municipio Corozal Municipio Dorado Municipio Florida Municipio Guaynabo Municipio Gurabo Municipio Hatillo Municipio Humacao Municipio Juncos Municipio Las Piedras Municipio Loiza Municipio Manati Municipio Maunabo Municipio Morovis Municipio Naguabo Municipio Naranjito Municipio Orocovis Municipio	

CHC Prevalence in Candidate Urban Areas under the FY 2008 UASI Program			
Tier 2 Urban Area			
State	Candidate Urban Area by Metropolitan Statistical Area	Counties and Cities Selected for Query	CHC Count
PR	San Juan-Caguas-Guaynabo Area (continued)	Quebradillas Municipio Rio Grande Municipio San Juan Municipio San Lorenzo Municipio Toa Alta Municipio Toa Baja Municipio Trujillo Alto Municipio Vega Alta Municipio Vega Baja Municipio Yabucoa Municipio	32
RI	Providence-New Bedford-Fall River Area, RI-MA	Bristol County Kent County Newport County Providence County Washington County	44
SC	Charlotte-Gastonia-Concord Area, NC-SC	York County	5
TN	Memphis Area, TN-MS-AR	Fayette County Shelby County Tipton County	25
	Nashville-Davidson, Murfreesboro, Franklin Area	Cannon County Cheatham County Davidson County Dickson County Hickman County Macon County Robertson County Rutherford County Smith County Sumner County Trousdale County Williamson County Wilson County	
TX	Austin-Round Rock Area	Bastrop County Caldwell County Hays County Travis County Williamson County	36
	Dallas-Forth Worth-Arlington Area	Collin County Dallas County Delta County Denton County	

CHC Prevalence in Candidate Urban Areas under the FY 2008 UASI Program			
Tier 2 Urban Area			
State	Candidate Urban Area by Metropolitan Statistical Area	Counties and Cities Selected for Query	CHC Count
TX	Dallas-Forth Worth-Arlington Area (continued)	Ellis County	16
		Hunt County	
	Kaufman County		
Rockwall County			
Johnson County			
Parker County			
Tarrant County			
Wise County			
	El Paso Area	El Paso County	17
	San Antonio Area	Atascosa County	28
		Bandera County	
		Bexar County	
		Comal County	
		Guadalupe County	
		Kendall County	
		Medina County	
	Wilson County		
UT	Salt Lake City Area	Salt Lake County	10
		Summit County	
		Tooele County	
VA	Richmond Area	Amelia County	16
		Caroline County	
		Charles City County	
		Chesterfield County	
		Colonial Heights City	
		Cumberland County	
		Dinwiddie County	
		Goochland County	
		Hanover County	
		Henrico County	
		Hopewell City	
		King and Queen County	
		King William County	
		Louisa County	
		New Kent County	
		Petersburg City	
	Powhatan County		
Prince George County			
Richmond City			
Sussex County			
	Norfolk-Virginia Beach, Newport News Area, VA-NC	Chesapeake City	16
		Franklin City	

CHC Prevalence in Candidate Urban Areas under the FY 2008 UASI Program			
Tier 2 Urban Area			
State	Candidate Urban Area by Metropolitan Statistical Area	Counties and Cities Selected for Query	CHC Count
VA	Norfolk-Virginia Beach, Newport News Area, VA-NC (continued)	Gloucester County Hampton City Isle of Wight County James City County Mathews County Newport News City Norfolk City Poquoson City Portsmouth City Southampton Suffolk Suffolk City Surry County Virginia Beach City Williamsburg City York County	15
WA	Seattle-Tacoma-Bellevue Area	King County Snohomish County Pierce County	81
	Portland-Vancouver-Beaverton Area, OR-WA	Clark County Skamania County	3
WI	Milwaukee-Waukesha-West Allis Area	Milwaukee County Ozaukee County Washington County Waukesha County	18
	Minneapolis-St. Paul-Bloomington Area, MN-WI	Pierce County St. Croix County	0
Tier 2 Total			1,790

¹ Community Health Centers generally receive funding from a variety of sources including private donors, foundations, and fundraising, as well as state funds. The majority of those distributions from governmental agencies come from federal sources, though some community health centers have been recipients of local- and state-level funding for special projects and services.

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- ¹⁷ October 2008, personal communication with Steven Harrison, assistant director of emergency operations, planning, and logistics, Virginia Department of Health.
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Likewise, mobile medical units and dental clinics, could be similarly valuable response assets, but similarly are not generally noted. On the other hand, CHCs may maintain hospital privileges, notably among those providing OB-GYN services, and include these establishments as service delivery sites which ultimately skew the counts. Additionally, FQHC Look-A-Likes are subject to the same BPHC expectations, PIN 2007-15 included, as FQHCs but do not receive Section 330 funding and are thus exempt from grantee reporting requirements and are not documented in the Healthcare Service Delivery Sites. NACHC suggests that FQHC Look-A-Likes could increase CHC counts by approximately 10 percent. Each state’s PCA may be a good source for the most accurate profile of CHCs in UASI jurisdictions and the most appropriate site for administrative contact information.