KATRINA

and Social Determinants of Health:

Toward a Comprehensive Community Emergency Preparedness Approach

Vincent Lafronza, Ed.D., M.S., & Natalie Burke

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“He who has health, has hope;
and he who has hope, has everything”.
-Arabian Proverb

CommonHealth ACTION gratefully acknowledges our partner organizations working to improve the lives of residents, including but certainly not limited to The Center for Empowered Decision Making, the New Orleans Health Department, the Joint Center for Political and Economic Studies, the Louisiana Public Health Institute, and the myriad of human services agencies serving the region.

MR. BRIDGEWATER By Albert M. Ward

It's OK,
Mr. Bridgewater, Mr. Bridgewater,
We're from the County.
Don't try to move, just yet.

Mr. Bridgewater, Mr. Bridgewater,
Can you hear me,
Do you know where you are…?
Mrs. Bridgewater, speak to him.

Charles…baby, I'm here,
You're still at home,
I called these people
….on 911.

Mr. Bridgewater, Mr. Bridgewater,
Sip this juice,
We've given you a shot,
Please blink, if you hear me.

He blinked, baby…you blinked,
I've never been so scared,
You were shouting and fighting,
The bed is soaked with sweat.

Seemed like you were burning up,
'couldn't wake you,
'couldn't move you,
I've never seen you like this before.

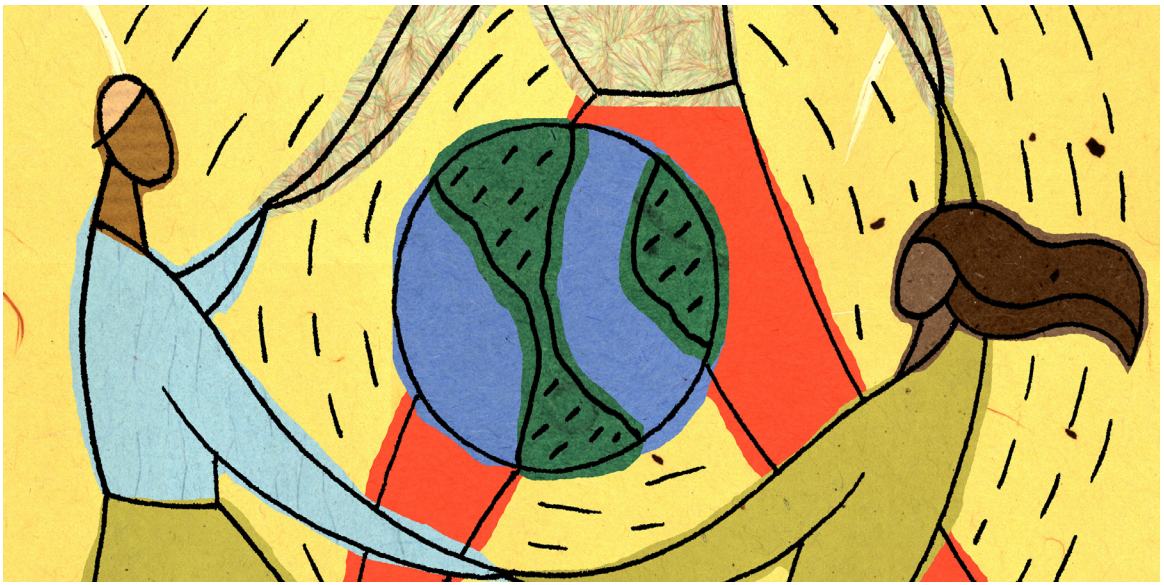
These people saved you Charles,
No, Mrs. Bridgewater, it's what you learned
In class that saved him…
You knew just what to do…

Applying Lessons Learning from Katrina: What Do We Tell Mr. & Mrs. Bridgewater?

Katrina made landfall in southeast Louisiana on August 29, 2005 as a category four hurricane. This Hurricane proved to be one of the most devastating natural disasters in US history with unofficial death estimates ranging from 1,500 to over 4,000. As of this writing, the post-Katrina mortality rate in Louisiana remains unclear. Two years later, Katrina's overwhelming impact continues to affect the lives of survivors. Thousands of individuals, young and old, remain dispersed across the country. Today's New Orleans is roughly half the size it was prior to Katrina. The Unified New Orleans Plan (UNOP) provided moderate scenario population estimates of 225,257 residents in January 2007, 267,631 by 2008, and 299,278 by January 2009. According to the UNOP, population growth is expected to occur slowly with a slight increase associated with the Road Home funds.[i] Nonetheless, many residents have decided not to return, while others anticipate returning when the conditions necessary to support a safer return are in place. The aftermath of this disaster will impact immeasurably at least two generations.

There is a plethora of failures at all levels of government associated with the Katrina disaster. Truthfully, everything broke down; governments, private sector organizations, and individuals were ill-prepared to respond in a timely manner. Indeed a legitimate role exists for criticism in that it can lead to learning and improvement. ***To what extent have we acted on what we've learned? Are we better prepared today than we were before Katrina? How much better prepared? Enough to make a difference should another hurricane or other disaster strike?***

Events similar to Katrina could occur in many American communities. We are a country largely unprepared for the magnitude of such disasters, whether natural or human-made. We believe it is our moral and ethical obligation as citizens to act on the lessons we continue to learn from Katrina and participate in the long-term recovery efforts underway. We hope this publication speaks to all concerned citizens, emergency responders, program administrators, elected officials, policy makers, employers, and the media in all corners of the US. ***We especially hope this publication stimulates dialogue and makes a stronger case for inclusion of social determinants of health models in all aspects of emergency planning and emergency response.***



Where We Live Matters to Our Health & Well-Being

The 20th century has brought major advancements in the health of the American public. People live approximately 30 years longer today than they did 100 years ago. More than advances in medical treatment, this accomplishment is largely the result of improvements in our ability to impact health at a population-wide level through prevention and health promotion, the principal function of the public health system. Twenty-five of those 30 added years are due to public health successes, such as improvements in water and food quality, healthier living and working conditions, increased understanding of disease epidemiology, and greater public awareness about health concerns. [ii] America's investment in creating an infrastructure for public health work made these and similar improvements in the population's health possible. In 1900, only a small number of cities had local health boards, and no county health agencies existed. [iii]

At the turn of the 21st century, well over 3,000 public health agencies serve most of our states, regions, counties, tribes, territories, and cities, as well as a wide range of other governmental and private/non-profit organizations and community groups. As public health practitioners work to enhance their efforts and increase public support, the country has never needed a strong public health system more. The U.S. faces challenges related to the emergence of new diseases such as HIV/AIDS, and the re-emergence of old ones like tuberculosis, which is gaining new strength. The number of Americans without health insurance has grown by a million a decade to more than 50

million. These and many other health threats exist in a changing environment brought on by such trends as increasing natural disasters, globalization of disease, health, and the economy; dramatic demographic shifts; uncontrolled urban sprawl; reduced federal and state revenues, and a recently established political climate fairly hostile to publicly funded social services." Historically, our public health culture championed a scientific approach to emerging threats and supported the principles of social justice and improved health and health care for all. That culture has shifted in a post-September 11, 2001, world."[iv] Meanwhile, U.S. life expectancy rates are slipping behind other nations, and the most significant threats to health remain outside the direct purview of medicine and public health practice.

As late as 1999, America did not rank among the industrialized nations' top ten for protecting and promoting the public's health. Exemplifying this, recent data show the U.S. ranked 24th (down from 19th in 1989) among industrialized nations in infant mortality, the single most common public health indicator. [v] Overall, social and economic disparities have increased dramatically in the last 25 years, and highly correlate with increasing health disparities. Most health inequalities are strongly related to cumulative factors sometimes viewed as outside the purview of public health's mission: wealth and income inequality, inequities in social and economic status, and social conditions associated with unsafe housing, poor education, turbulent labor markets, institutional racism, and unsafe working conditions. [vi]

In recent years, public health practice, and specifically epidemiology, has moved still further from its social roots through the gradual adoption of a more biomedical approach. [vii] Reducing health disparity, and therefore reducing social and economic disparity, is shown to be directly related to health improvements not only for targeted population groups, but for the overall population as well. [viii] Hence, public health advocates must become advocates for social change related to improving social conditions. Systems improvement demands an honest look at how issues of race and class influence who is healthy and who is not, who is a partner in systems improvement and who is not, how the community defines health problems, who has decision-making power, and which communities/neighborhoods and organizations have resources, and taking action to change these realities. We must also improve our understanding and measurement of root causes driving under-preparedness and intervene in this dangerous cycle.

In its post-Katrina state, the tendency for systems to regress towards the mean is evident. Katrina's experience creates both threats and opportunities for the city's residents. No one entity can accomplish all the necessary tasks to rebuild a responsive and viable community public health system prepared for any disaster. [We refer to the public health system as the arrangement of all publicly operated entities

which provide health-related, population-based services – including disease prevention, health promotion, preparedness, diagnosis, treatment, rehabilitation, policy and research – to promote conditions in which people can be healthy.] Disaster preparedness differs from disaster response. A blending of collaborative approaches is required to ensure effective preparedness. After all, "public health is a social enterprise, not an institutional arm of the military system." [ix] The memory of the grossly inadequate response immediately following Katrina continues to plague new preparedness efforts as so many have lost faith in 'the system.'

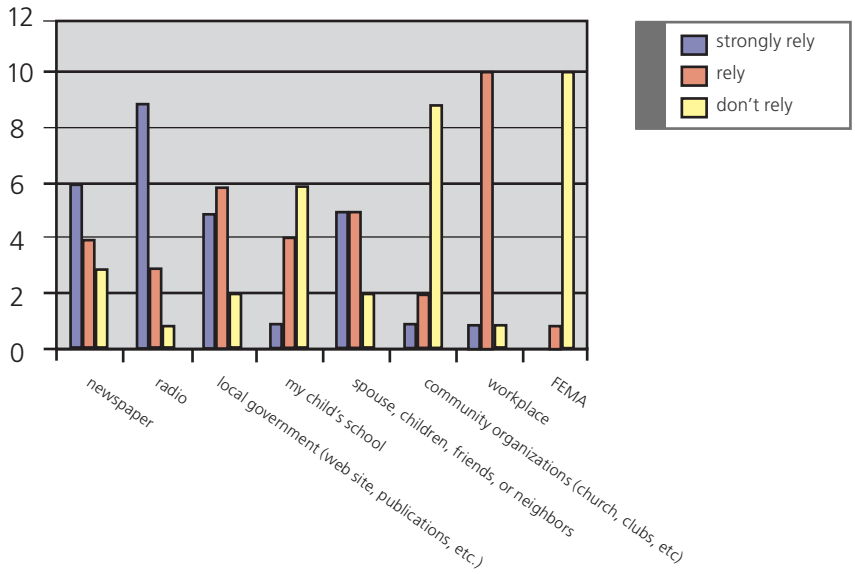
In many ways, New Orleans was not better off in its pre-Katrina state. Like many locales, the social forces that created an economically divided New Orleans emerged from years of inadequate policy, attention, and concern for our fellow brothers and sisters. Katrina more clearly uncovered many social ills that were omnipresent but perhaps lurking just beneath the surface. In a post-Katrina environment, there are new opportunities to recreate institutions and organizations, and restructure the interactions among them.

We know from decades of health research throughout the world that where we live matters. Our daily environs matter with respect to many outcomes but especially those related to health and well-being. We also know anecdotally that non-governmental organizations (NGOs) including faith-based NGOs played significant roles in the emergency response effort immediately following Katrina. With funding provided by the US Department of Health and Human Services (HHS), the Urban Institute is currently

exploring how to study the impacts of the storm on populations served by (1) HHS' Administration for Children and Families and (2) faith-based and community organizations' responses to Katrina. According to Urban Institute researchers, "Coordination between government and non-governmental agents requires well-defined roles and responsibilities, and mechanisms for making both mutually supportive. Many victims of hurricanes and other disasters inevitably move across geographic jurisdictions and from one program's reach to another. Families should be able to rely on government to make it easier to get emergency income or food assistance as they move, for example, from Louisiana to Texas and therefore from Louisiana's TANF rules to Texas' rules. Government may be the critical means to locate individuals, reunite families, or transfer care." [x]

But individuals and families have not been able to rely on government and our collective progress as a nation to help rebuild a region remains insufficient. Federal emergency preparedness funds granted to states and communities failed to address the well-defined weaknesses identified in both the 1988 and 2003 Institute of Medicine reports. [xi] Since Katrina's landfall, CommonHealth ACTION staff has followed the overwhelming news coverage related to response, recovery, and rebuilding efforts in the region. Newspapers, Web sites, blogs, Listservs, cable news stations, radio, and other news outlets covered a wide range of topics ranging from disagreements in the mortality rate, integrity of levees, zoning issues, affordable private and public housing options, painstakingly slow health care reform,

INFORMATION SOURCE TO PREPARE FOR AN EMERGENCY

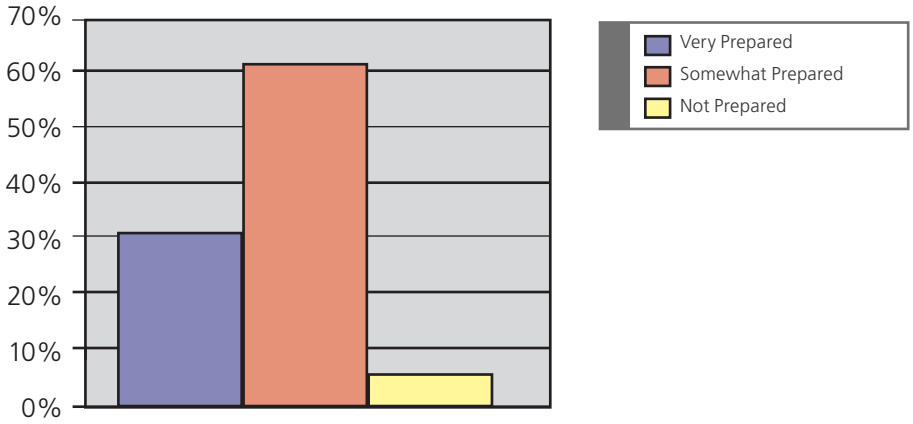


the debate over recovery school districts and public vs. private education, transportation, land use, repopulation, continued corporate and government corruption, Katrina fatigue, and formaldehyde exposures. Amidst this pandemonium that continues to add to the human atrocities, we believe there are two significant dialogues generally missing from the myriad of hotly debated issues throughout New Orleans' recovery efforts;

- are New Orleanians significantly better prepared for another emergency?; and
- have we adequately invested in the public health system to ensure better protections for population health from a prevention standpoint?

With respect to the first issue of more effective emergency preparedness, as the 2007 Hurricane Season approached, in our everyday interactions with our partners based in or near the city of New Orleans, we asked individuals if they were aware of the new evacuation procedures in place and what they planned to do differently in the event of another hurricane. Based on our informal discussions with individuals, we developed a brief self-assessment instrument. In this Household Emergency Preparedness Pilot Study, we asked individuals employed by some of our organizational partners (i.e., working in the fields of public and community health or social services) to rate the level of preparedness for their own households. A small number of respondents tested the instrument and rated their preparedness at home.

HOUSEHOLD OVERALL PREPAREDNESS LEVEL (SELF RATED)



While some indicated they had made changes in their personal preparedness plans, in a self-assessment, few rated their own households as 'very prepared'. When we asked specifically about changes city officials have made prepare for the current Hurricane Season, we sense great skepticism, best described as a "we're on our own" evacuation policy. As of this writing, we have not tested the extent to which a greater number of New Orleanians share this sentiment, but a critical opportunity exists to increase family and community preparedness planning now.

These data shared herein reflect pilot survey results derived from a very small sample size. Therefore, we did not test for statistically significant differences in response patterns. However, we know from many years of work in communities across the country that if a pilot sample of individuals employed by social service agencies unveils inadequate preparedness, then extrapolating to a broader audience will likely reflect even greater need, particularly in relation to factors such as knowledge of school emergency procedures, access to important documents, adequate food, water, and prescription medications. This pilot study also raises important questions about information sources individuals and families will rely on in the event of an emergency.

In our work with the city health department staff, we know that evacuation-related planning improvements are underway. Additionally, the Unified New Orleans Plan (UNOP), an impressive effort, includes a focus on public safety and hazard mitigation issues and specifically addresses health care but only as it relates to primary medical care; the UNOP, however, fails to address adequately public

health capacity. [xii] Clearly, developing a comprehensive and population-based prevention infrastructure capable of addressing social determinants of health in New Orleanians remains a critical need. Towards this end, we have an opportunity to inform the UNOP process by adopting a social determinant model to strengthen capacity to protect and improve population health.

Social and economic disparities have increased dramatically in the last 25 years, and highly correlate with increasing health disparities. Recent trends highlight such disparities whereby nearly 40 percent of black and Hispanic children were living in poverty in 1996 – compared to 15 percent of white children. [xiv] Similarly, access to health care services, a key indicator of population equity, remains unequal. [xv] Moreover, the proportion of the U.S. population lacking health insurance has increased over time, with low-income and Hispanic groups having particularly high rates of non-insurance. And approximately 8.4 million children in the US are currently uninsured.

SOCIAL DETERMINANTS OF HEALTH refer to conditions of society that reflect root causes of community and individual health and well-being. [xiii] Such causes include but are not limited to quality and affordability of housing, level of employment and job security, standard of living, availability of mass transportation, quality of education, forms of clean economic development, racism, poverty, distribution of goods and services, chronic stress, and workplace conditions .

Public health and safety practitioners often struggle with the notion that their programs should address social issues. How could individual programs tackle deep-rooted injustices related to racial and class discrimination, socioeconomic disadvantage, poor housing stock, and a myriad of other social forces that drive population health status? Shouldn't practitioners just focus on their mission to provide everyday services such as preventing the spread of West Nile Virus, inspecting restaurants, family planning programs, immunizations, communicable disease surveillance, and so on? Won't inequities in health be addressed by providing access to services to all community residents? These questions are understandable. History has shown that indeed one agency simply cannot address these issues, nor should one agency attempt to do so. The city of New Orleans is certainly not alone in the need to address persistent population health challenges. Across the globe, many wealthy countries are struggling with increasing health inequity. In March 2005, the World Health Organization established an international body, entitled, The Commission on Social Determinants of Health: Tackling the Social Roots of Health Inequities. [xvii] With WHO Web site permission, we acknowledge the authors and include highlights from this article (Text Box 1).

While extreme, the plight of New Orleans is not unique. Emergency preparedness capacity is a crucial aspect of serving the public's interest, well-being, and overall health and safety. The recent disaster clearly demonstrated the immense importance of effective disaster response systems to the world community. In many areas, significant disparities among the state of readiness across many communities persist. These problems are not new. When Hurricane Isabel struck in 2003, not all communities across the Mid-Atlantic States were well prepared; this lack of preparedness is not unique to the Isabel experience, either. Many reasons account for being ill-prepared for disasters. But particularly in communities of color, research findings show more significant social problems, including poverty, inadequate resources and political will, and being overwhelmed with everyday survival needs. [xviii]

WASHINGTON STATE FRAMEWORK

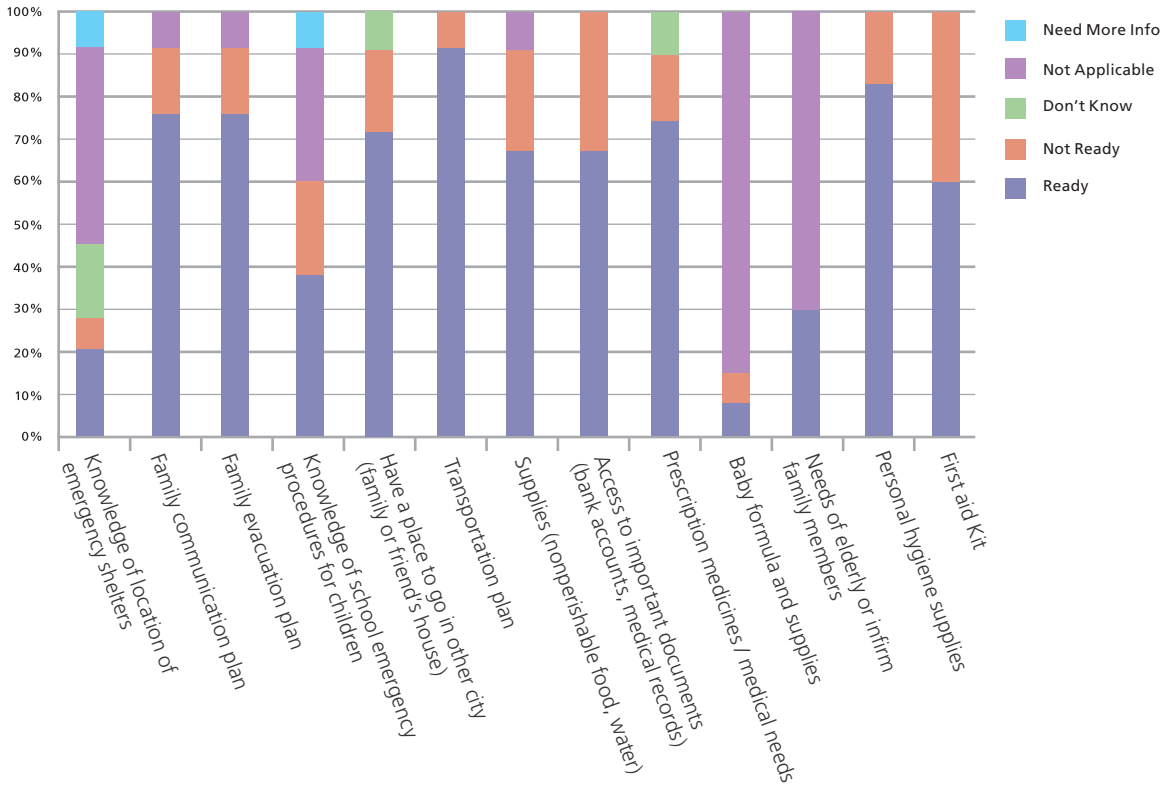
Social conditions are major determinants of health. Social forces acting at a collective level shape individual biology, individual risk behaviors, environmental exposures, and access to resources that promote health. There is a graded relationship between social position and health status that affects people at all levels of the social hierarchy. While public health programs alone cannot ameliorate the social forces that are associated with poor health outcomes, developing a better understanding of the social determinants of health is critical to reducing health disparities among Washington State residents of differing socioeconomic position.

From The Health of Washington State: The Social Determinants of Health, 2002.

Emergency preparedness effectiveness and post-disaster community resilience directly relate to the social determinants of health described herein. In the case of the Gulf States, Katrina represented a worst case scenario. Taken together, preventing future generational devastation will require more comprehensive approaches to emergency preparedness that incorporate social determinants of health models.

Leveraging Lessons Learned

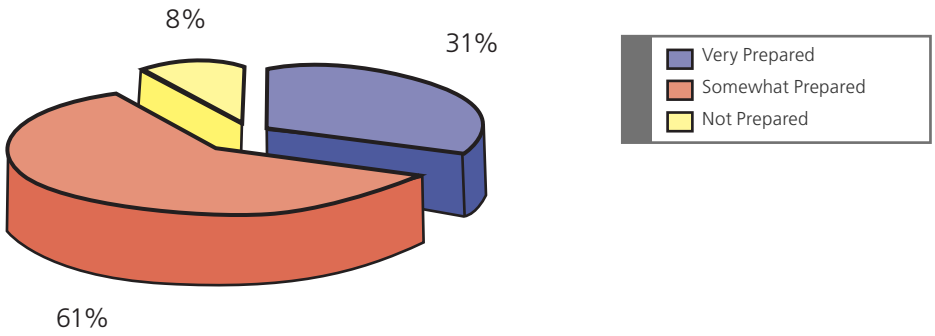
Few states have experienced the frequency and intensity of natural disasters like California. Research has shown that community-based capacity at a household level is critical to ensure effective response, particularly for first responders. Specifically, some of the most successful preparedness models build capacity at the neighborhood block level. Researchers found that block level disaster planning produced higher levels of preparedness for households in the city of Albany, compared with a control city that lacked such programs. [xix] Being well prepared at the block level



also produced many peripheral benefits such as a greater sense of community that can be critically important to survival and post disaster recovery. California, a state rather accustomed to emergency preparedness and response, possesses greater protective factors such as lower poverty rates relative to the Gulf States.

Over the past few years, we perused several hundred media articles related to emergencies preparedness issues. The articles are too numerous to describe herein, but the messages were similar across states. Media correspondents provided a mixture of favorable and unfavorable stories regarding heroic efforts and inadequacies of public and private agencies and volunteers working together to respond to Hurricanes Katrina, Rita, Floyd, Charley, Frances, Ivan, and Isabel. Our review also found that after September 11, 2001, the media stories heavily focused on emergency preparedness systems capacity related to terror and bio-terror threats, and public attention was heavily focused on terror-related disasters, which, as in Katrina's case, posed less risk than natural disasters.

HOUSEHOLD OVERALL PREPAREDNESS LEVEL (SELF RATED)



We also learned a great deal after the September 11 tragedy with respect to our work with the city of New York health department and collaborative action taken by other partnerships serving large cities. Our research regarding barriers to collaboration are most applicable here, including politics and leadership; timing and involvement of the community in emergency preparedness efforts; legal/policy issues; racism and fear; resource limits; and communication and the role of media. [xx] Additionally, most collaborative efforts lack specific subsystems of support to sustain ongoing collaboration. [xxi]

What Can Every Community Learn from Katrina About Emergency Preparedness?

Herein we present a case for emergency preparedness approaches to adopt more comprehensive approaches that incorporate social determinants of health models. Disasters will test vulnerabilities of entire societies. The disparities that we know to exist in health status are also salient indicators of the disparities that are persistent in the U.S., beyond the realm of health or disasters. Research continues to demonstrate an individual's health status is primarily a cumulative result of social factors at play. Katrina can teach us a great deal about the weaknesses in our emergency preparedness and response systems but only if we are open to learning and developing new approaches. ***Broad implications exist for adopting a social determinants of health in emergency preparedness and response models that far exceed only preparing for vulnerable populations, e.g., infirm, elderly, etc.***

Towards this end, there are a number of initial steps that every community can take to improve an overall level of preparedness. Table 1 (pg 16) contains steps for movement toward a more comprehensive emergency preparedness approach that incorporate social determinants of health. Building on lessons learned from national initiatives and derived from our experience in working in New Orleans, this approach reflects a work in progress.[xxii] These steps can readily augment the emergency preparedness plans already in place, building and strengthening relationships among many partners needed for effective emergency preparedness. The time has come to test more expanded models to determine if indeed they result in increased preparedness efficacy and post-disaster resilience. Let this be included in our legacy from Katrina.

Towards a Comprehensive Emergency Preparedness Approach July 2007 Version – Work in Progress	Individuals and Families	Local Gov't Programs	NGOs/ Churches	Policy Makers	Employers
Develop a household emergency preparedness plan, complete with communications and evacuation information, and a designated place to go in another city.	✓				
Provide support for and increase planning activity in every household (a household preparedness self-assessment tool may be helpful).		✓	✓	✓	✓
Hire staff reflective of community served and ensure policy environment supports this approach.		✓			
Integrate social determinants of health training and learning experiences for programmatic staff across all discipline areas.		✓	✓	✓	
Stimulate community dialogues on social determinants of health. Such dialogues can inform emergency preparedness, response and overall community wellbeing. The new PBS documentary series, entitled, "Unnatural Causes: Is Inequality Making Us Sick?" provides a powerful dialogue stimulator. [See www.unnaturalcauses.org]		✓	✓		
Reframe definitions of 'vulnerable populations' and develop matrices that address a myriad of social determinants (e.g., language, culture, income, mobility, historic experience).		✓	✓		
Conduct jurisdiction-wide surveys to ascertain reliance patterns of information sources for planning for emergencies (not just for recovery information).		✓	✓		
Assess policies to determine more effective supports for collaborative emergency preparedness and emergency response that leverages appropriate roles for public and private sectors.		✓	✓		
Build capacity for proactive support and outreach to employers.		✓	✓	✓	
Recognize your organization's role as a significant information source and ensure capacity to deliver on this expectation.		✓	✓	✓	✓
Designate staff (more than one) knowledgeable of preparedness resources.		✓	✓		✓
Establish benchmarks to evaluate progress, inform improvements, and identify new partners.		✓	✓	✓	✓

CommonHealth ACTION

Catalyst for health

Who we are…

CommonHealth ACTION is a registered, non-profit organization in the District of Columbia. Incorporated in 2004, and building on over two decades of learning from health systems improvement initiatives, CommonHealth ACTION's philosophy guides its practice to invest in people and dedicate available resources to those most affected by inequities in health and well-being, and to serve as a catalyst for the development of community generated solutions.

What we do…

CommonHealth ACTION helps people and organizations maximize their potential to improve the health of communities, families, and individuals. We work as a catalyst throughout the US.

Our vision…

A greater number of community partnerships across the US are actively engaged in addressing the social determinants of health to produce better health and quality of life.

www.commonhealthaction.org

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NOTES

i. The Unified New Orleans Plan, updated 2007. Visit http://unifiedneworleansplan.com/home2/.

ii. Centers for Disease Control and Prevention, "Ten Great Public Health Achievements – Unites States, 1900-1999." Morbidity and Mortality Weekly Report 48(12) (April 2, 1999): pp. 241-243.

iii. A. R. Hinman. "1889-1999: A Century of Health and Disease," Public Health Reports 105(4) (1990): 374-380.

iv. Berkowitz, B., Nicola, R., Lafronza, V., & Beckemeier, B. "Turning Point's Legacy," Journal of Public Health Management and Practice, 11(2) (2005): p. 97.

v. World Health Organization, World Health Statistics Annual, 1997-1999 Edition (Geneva: WHO, 1999).

vi. See the introduction and articles in part 1 of Ichiro Kawachi, Bruce P. Kennedy, and Richard Wilkonson (eds.), The Society and Population Health Reader: Income Inequality and Health (New York: The New Press, 1999); N. Moss and Nancy Krieger, "Report on the Conference of the National Institutes of Health," Public Health Reports 110 (1995): p. 302-305; Beaglehole and Bonita, Chapter 3; John W. Lynch et al., "Income Inequity and Mortality in Metropolitan Areas of the United States," 88 American Journal of Public Health, (May, 2000): p. 690.

vii. Elizabeth Fee and Theodore M. Brown, "The Past and Future of Public Health Practice," American Journal of Public Health, (May, 2000): p. 690.

viii. For more discussion, see Institute of Medicine, The Future of Public Health (Washington, DC: National Academy Press, 1988).

ix. "Local and State Collaboration for Effective Preparedness Planning. " Z. Bashir, V. Lafronza, M.R. Fraser, C. K. Brown, and J.R. Cope. Journal of Public Health Management and Practice 9(5) (September-October 2003): p. 350.

x. After Katrina: Interview with Fredrica Kramer. See www.urbaninstitute.org, August 2007.

xi. Berkowitz, et al. (2005) p. 87.

xii. The Unified New Orleans Plan (UNOP), 2007. See section 5.4.2.5, p. 142, www.unifiedneworleansplan.com.

xiii. Rhein, M., Lafronza, V., Bhandari, E., Hawes, J., & Hofrichter, R. Advancing Community Public Health Systems in the 21st Century. National Association of County and City Health Officials, 2001.

xiv. See Robert Beaglehole and Ruth Bonita, Public Health at the Crossroads (Cambridge: Cambridge University Press, 1997; Bruce Kennedy and Ichiro Kawachi, David Williams, David Blane, et al. Health and Social Organization: Towards a Health Policy for the 21st Century (New York: Routledge, 1996).

xv. "Income, Poverty, and Health Insurance Coverage in the United States: 2006." US Census Bureau (August 2007): p.22.

xvi. "Going Without: America's Uninsured Children." Covering Kids and Families, The Robert Wood Johnson Foundation (August 2005): p. 4.
xvii. Irwin A, Valentine N, Brown C, Loewenson R, Solar O, et al. (2006) The Commission on Social Determinants of Health: Tackling the Social Roots of Health Inequities. PLoS Med 3(6): e106.
xviii."Differentials, Income Distribution and Trends in Poverty." Journal of Social Policy 18(3) (1989): pp. 307-335; Norman Daniels, Bruce Kennedy and Ichiro Kawachi. "Justice is Good for Our Health: How Greater Economic Equality Would Promote Public Health," Boston Review
xix. (February/March, 2000): pp. 4-9.
xx. Building neighborhood and local emergency capability: The role of community-based disaster preparedness programs. Simpson, D.M., Doctoral Dissertation, University of California, Berkley, 1996.
xxi. See Eilbert K, Lafronza V. "Examining Collaborative Public Health Practice and Emergency Preparedness – Can it Work? Turning Point Partnerships Share their Experience." Washington, D.C.: National Association of County and City Health Officials (2004).
xxii. Eilbert, K., & Lafronza, V. "Working Together for Community Health: A Model and Case Studies." Evaluation and Program Planning, 28(2) (May, 2005): pp. 185-199.
xxiii. Lafronza, V. "Lessons from the Turning Point Initiative: Implications for Public Health Practice and Social Justice." Chapter Eight in Tackling Health Inequities Through Public Health Practice: A Handbook for Action. National Association of County and City Health Officials, July, 2006, p. 137-154.

CommonHealth *ACTION*

Catalyst for health

1025 Connecticut Avenue, NW
Suite 1000
Washington, DC 20036
toll-free phone/ fax : 1.866.754.9632

www.commonhealthaction.org