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POST-CATASTROPHE CRISIS: ADDRESSING THE DRAMATIC NEED AND SCANT AVAILABILITY OF MENTAL HEALTH CARE IN THE GULF COAST

HEARING

BEFORE THE

AD HOC SUBCOMMITTEE ON DISASTER RECOVERY

OF THE

COMMITTEE ON
HOMELAND SECURITY AND
GOVERNMENTAL AFFAIRS
UNITED STATES SENATE

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CONTENTS

Opening statements: Page
Senator Landrieu 1
Senator Stevens 10

WITNESSES

WEDNESDAY, OCTOBER 31, 2007

A. Kathryn Power, M.Ed., Director, Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, U.S. Department of Health and Human Services 10
Anthony H. Speier, Ph.D., Director, Disaster Mental Health Operations, Office of Mental Health, Louisiana Department of Health and Hospitals 18
Jan M. Kasofsky, Ph.D., Executive Director, Capital Area Human Services District, Baton Rouge, Louisiana 20
Kevin U. Stephens, Sr., M.D., J.D., Director, New Orleans Health Department 22
Ronald C. Kessler, Ph.D., Professor of Healthcare Policy, Harvard Medical School, and Principal Investigator of the Hurricane Katrina Community Advisory Group 29
Howard J. Osofsky, M.D., Ph.D., Kathleen and John Bricker Chair of Psychiatry, Department of Psychiatry, Louisiana State University Health Sciences Center 31
Mark H. Townsend, M.D., DFAPA, Professor and Vice Chairman for General Psychiatry, Director of Psychiatry, Medical Center of Louisiana at New Orleans 33

ALPHABETICAL LIST OF WITNESSES

Kasofsky, Jan M., Ph.D.:
Testimony 20
Prepared statement 71
Kessler, Ronald C.:
Testimony 29
Prepared statement with an attachment 100
Osofsky, Howard J., M.D., Ph.D.:
Testimony 31
Prepared statement 113
Power, A. Kathryn, M.Ed.:
Testimony 10
Prepared statement with attachments 41
Speier, Anthony H., Ph.D.:
Testimony 18
Prepared statement 58
Stephens, Kevin U. Sr., M.D., J.D.:
Testimony 22
Prepared statement with attachments 93
Townsend, Mark H., M.D., DFAPA:
Testimony 33
Prepared statement 117

APPENDIX

"Trends in mental illness and suicidality after Hurricane Katrina," September 2007, by Ronald C. Kessler, Sandro Galea, Michael J. Gruber, Nancy A. Sampson, Robert J. Ursano, and Simon Wessely 120

Page

Michael A. Zieman, FACHE, Administrator of Memorial Behavioral Health, Memorial Hospital at Gulfport, Mississippi, prepared statement 152
Lafayette Parish School System, prepared statement 155
East Baton Rouge Parish Schools, Baton Rouge, LA, prepared statement 156
Monroe City School District, Monroe, LA, prepared statement 157
World Health Organization, December 2006, Bulletin 159
"The Louisiana Model for a Local System of Care," report from the Capital Area Human Services District 169
Chart entitled "Mental Health Resources in New Orleans," submitted for the Record by Senator Landrieu 175
Chart entitled "SAMHSA Funding to Gulf Coast in Fiscal Year 2006," submitted for the Record by Senator Landrieu 176

POST-CATASTROPHE CRISIS: ADDRESSING THE DRAMATIC NEED AND SCANT AVAILABILITY OF MENTAL HEALTH CARE IN THE GULF COAST

WEDNESDAY, OCTOBER 31, 2007

U.S. SENATE,
AD HOC SUBCOMMITTEE ON DISASTER RECOVERY
OF THE COMMITTEE ON HOMELAND SECURITY
AND GOVERNMENTAL AFFAIRS,
Washington, DC.

The Subcommittee met, pursuant to notice, at 2:35 p.m., in Room SD–342, Dirksen Senate Office Building, Hon. Mary Landrieu, Chairman of the Subcommittee, presiding.

Present: Senators Landrieu and Stevens.

OPENING STATEMENT OF SENATOR LANDRIEU

Senator LANDRIEU. Good afternoon. The Subcommittee on Disaster Recovery will come to order.

When I became Chairman of the Subcommittee on Disaster Recovery at the beginning of this year, I promised that this Subcommittee would work to create the most effective disaster response and recovery system possible, streamlining current processes, designing brand-new tools, where necessary, promoting better coordination between government at all levels, the private sector, and the nonprofit community, particularly as it relates to dealing with catastrophic disasters.

With the help of my Ranking Member, Ted Stevens, this Subcommittee has held five hearings since its inception in March 2007. Our first hearing was basically an overhead snapshot of the current situation, urgent steps toward fixing the recovery process led off by testimony from GAO. The second was a hearing entitled "Beyond Trailers: Creating a More Flexible, Efficient, and Cost-Effective Federal Disaster Housing Program," examining a more efficient, cost-effective way to handle the Federal disaster housing program. Our third hearing was "Repairing the Road Home Program," trying to help literally hundreds of thousands of homeowners and renters get back to their communities and their neighborhoods. Our fourth was a hearing on problems with FEMA's public assistance program entitled "FEMA's Project Work Sheets: Removing the Most Obvious Obstacles to Our Recovery." And, last, just less than a month ago, I had the privilege of hosting a field hearing in Anchorage, Alaska with Senator Stevens actually looking at a pending disaster of coastal erosion on the northwestern shore of Alaska at

a small fishing village, Shishmaref, where the impacts of coastal erosion were clear and dramatic.

Through these hearings, we have been able to create a narrative that tells a story that I think is very compelling and one that this country needs to hear and absorb, and that is that our country's disaster response mechanism lacks the muscle and the flexibility necessary to prevent and ward off disasters as well as to facilitate the long-term recovery of impacted communities, particularly from catastrophic disasters.

Only last week, we saw the heroic efforts of first responders in California as they battled the massive fires that destroyed over 500,000 acres. The dramatic images of this fire, as well as this morning's 5.2 magnitude earthquake in the Bay Area, reminds us that disasters can and will strike anywhere, that no place in the United States is immune.

The Federal Government appears to have applied some of the lessons learned from the 2005 hurricane and subsequent levee failures. However, we have to understand that putting out those fires, as horrible as they are, and which tragically claimed 1,676 homes, 250 businesses, and it took 16 lives, which is horrific to even think about those numbers, but the comparison, if you will, to Hurricanes Katrina and Rita that destroyed 266,000 homes, 18,000 businesses, and killed nearly 1,700 people, is what this Subcommittee has focused a good bit of its time and attention on.

The common thread, however, between these two events, despite their difference in their magnitude, is the fact that survivors of these fires and the survivors of the floods are both suffering right now from severe emotional and mental impacts. These impacts will be long lasting for California survivors, and they are long lasting for the survivors along the Gulf Coast.

Many of you who watched the coverage of the wildfires saw reports of distress, nightmares, and emotional disturbances in evacuees as they camped out in shelters awaiting news on the status of their homes and their loved ones. Unfortunately for them, I know that this is only the beginning. Even 2 years after our terrible 2005 hurricane season, hurricane survivors along the Gulf Coast continue to suffer emotionally as they ride out the slow recovery process.

For Hurricanes Katrina and Rita survivors from all walks of life, the stress from the storm and rebuilding has hit a high level that can only be described as a crisis. The loss of homes, jobs, and loved ones, together with the separation of family and the slow, painful pace of recovery has left, I think, emotional scars.

The mental health situation has emerged as one of the most critical issues facing our recovery, and that is the focus of the hearing today. From our police force, our firefighters, and other first responders, who themselves were victims, to our young children, to the elderly, from everyday men and women trying to provide for their families, the mental health crisis in the Gulf Coast has left no segment of society untouched.

Between May 2005 and February 2006, 668 first responders were surveyed by the LSU Health Sciences Center: 19 percent of police officers exhibited symptoms consistent with post-traumatic stress disorders (PTSD); 26 percent exhibited symptoms of major depres-

sion; 1 in 5 said their alcohol consumption had increased. A survey of 2,757 children returning to New Orleans within a year of Hurricane Katrina found that 20 percent had been touched by a hurricane-related death or injury; 33 percent had been temporarily separated from parents or guardians; 1,638 school children grades 4 through 12 were also surveyed by LSU; 54 percent met criteria for PTSD or depression. During the same period of time, 31 percent of children preschool to age 5 demonstrated symptoms meeting criteria for mental health referrals.

We always have a challenge in our community for mental health. There never seems to be enough resources or enough services. But the situation along the Gulf Coast and the potential long-term impacts of the fires in California warrant some attention and our focus today.

The city of New Orleans currently has just five active emergency rooms. As of August 2006, only 77 out of 460 pre-Hurricane Katrina beds, inpatient psychiatric beds, are available in New Orleans. This has forced hospitals to turn away even suicidal patients. Recent surveys have found that only 140 out of 617 primary care physicians have returned. An American Psychiatric Association survey found that 22 of 196 psychiatrists—only 22—are still practicing in New Orleans.

Now, when I say New Orleans, I mean the regions: St. Bernard, parts of St. Tammany, Jefferson, and Orleans Parishes. We still have major destruction in Cameron on the western side of our State, and along the Mississippi Gulf Coast, the communities of Waveland and Biloxi and other places—Pass Christian, MIssissippi—are still very significantly impacted.

[The prepared statement of Senator Landrieu follows:]

Statement of Mary L. Landrieu, Chairman
Subcommittee on Disaster Recovery Hearing
"Post-Catastrophe Crisis: Addressing the Need and Availability of Mental Health Care in the Gulf Coast."

- I became the Chairman of the Subcommittee on Disaster Recovery at the beginning of this year and in my first statement before this body I promised that this subcommittee would, "oversee the recovery at hand in the Gulf States and also look to the future to determine what must be done to recreate the most effective disaster response and recovery system possible."

- With the help of Ranking Member Ted Stevens, this subcommittee has held five hearings since its inception in March of 2007. Our first hearing, "Examining the Gulf Coast Recovery—Urgent Steps toward Fixing the Recovery Process," took an overhead snapshot of the recovery by hearing from GAO on their assessments of the major recovery problems. The second, "Beyond Trailers Part I: Creating a more flexible, efficient, and cost effective federal disaster housing program," examined FEMA's disaster housing program and its effectiveness. Our third hearing, "Repairing the Road Home—An Examination of the Issues, Challenges, and Impediments Facing Louisiana's Road Home Program," analyzed the progress and problems with Louisiana's home rebuilding program.

- We held a hearing on what we consider one of the chief hindrances to rebuilding public infrastructure at our fourth hearing entitled, "FEMA's Project Worksheets: Removing the Most Prominent Obstacle to the Gulf Coast Rebuilding." And Lastly, we held a field hearing in Alaska examining Native Alaskans' struggle to find solutions to the problem of coastal erosion called, "The State and Federal Response to Storm Damage and Erosion in Alaska's Coastal Villages."

- Through these hearings, we have been able to create a narrative that tells a story that I think is very important for this country to hear—that our country's disaster response mechanism lacks the flexibility to deal with unique problems (like those faced by Alaskan Natives and those

we will hear about today) and is suitable for normal disasters, but it is not equipped to handle catastrophes.

- Only last week, we saw the heroic efforts of first responders in California as they battled the massive fires that destroyed over 500,000 acres of mountainous terrain. The dramatic images of burning homes and evacuees crowding Qualcomm Stadium were a chilling reminder that we are never far away from the next disaster.

- The federal government appears to have applied some of the lessons learned from the 2005 hurricanes. We should applaud the federal government for their successes, but we absolutely cannot let the response to this event make us complacent in our efforts to improve our disaster system. As horrific, deadly, and truly heartbreaking as the fires were, a major disaster like these fires, which tragically claimed 1,676 homes, 250 businesses, and took 16 lives, is much different than a catastrophe like Katrina that destroys 266,000 homes, over 18,000 businesses, and killed nearly 1,700 throughout the Gulf Coast.

- A commonality between these two events however, is the fact that the victims of the wildfires and Hurricanes Katrina and Rita are both suffering from their emotional impacts. Those impacts will be long-lasting and traumatic for the California fire survivors, and continue to be traumatic and devastating for Katrina and Rita survivors.

- Many of you who watched coverage of the wildfires saw reports of distress, nightmares, and emotional disturbance in evacuees as they camped out in shelters, awaiting news on the status of their homes and loved ones. Unfortunately, this is only the beginning. Even two years after the 2005 hurricane season, hurricane survivors continue to suffer emotionally as they ride out the slow recovery process.

- For survivors from all walks of life, the stress from the storm and rebuilding has hit a level that can only be described as a crisis. The loss of homes, jobs, and loved ones, together with the separating of families and the slow pace of recovery, has left an emotional scar on the victims. The mental health situation has emerged as one of the most critical issues facing the recovery.

- From our police force to our firefighters and all other first responders; from young children to the elderly; from everyday men and women trying to provide for their families, the mental health crisis in the Gulf Coast has left no segment of society untouched.

- Women, children, and first responders seem to be particularly hard hit by this sort of disaster. In the weeks immediately following the hurricane, two New Orleans police officers committed suicide.

- Between May and February of 2006, 668 first responders were surveyed by LSU Health Science Center (LSUHSC) researchers. 19 percent of police officers exhibited symptoms consistent with PTSD. 26 percent exhibited symptoms of major depression. 1 in 5 said their alcohol consumption increased.

- A survey of 2,757 children returning to the New Orleans area within a year of Katrina found that 20 percent had been touched by a hurricane-related death or injury, and 33 percent had been separated from parents or guardians.

- **1,638 school children grades 4-12 were also surveyed between December of 2005 and May of 2006 by LSUHSC. 54 percent met criteria for PTSD or depression—54 percent**. During the same period of time, 31 percent of children preschool to grade 5 demonstrated symptoms meeting criteria for mental health referrals.

- Health care professionals and academia have also indicated that there is a startling correlation between a rise in mental health problems and a rise in death and murder rates.

- Data from the New Orleans' coroner's office suggest that New Orleans' suicide rate has tripled Post-Katrina.

- A recent Harvard Medical School survey found that the percentage of people in New Orleans who reported suicidal thoughts increased from 3 percent to 8 percent between March 2006 and the summer of 2007.

- Over the last six months of 2006, the murder rate in Orleans Parish

doubled when compared with Pre-Katrina levels. Mental health experts have suggested these numbers may be linked.

- These statistics are chilling and as the numbers show, the demand for mental health care is growing. According to a January 2006 NPR report, Baton Rouge has seen a 40 percent increase in requests for mental health services during the last four months of 2005 alone. This extraordinary demand strains a health system struggling to recover from Katrina-inflicted infrastructure damages and losses.

- This rise in need has crashed head-on with a dramatic decrease in the capacity of the health care system to service area citizens. According to the previously mentioned NPR report, waiting lists have grown from days to weeks to months for mental health counseling. Prior to hurricane Katrina, a person who was "severely distressed" could get an appointment with a mental health professional within **48 hours; now that same person must wait as long as two to three month**s.

- The City of New Orleans currently has just five active emergency rooms. As of August 2006, only 77 out of 460 pre-Katrina (less than one-third) in-patient psychiatric beds were available in New Orleans. This has forced hospitals to turn away even suicidal patients.

- In greater New Orleans, the number of psychiatric beds is 289 (Pre-Katrina beds numbered 668). The closure of Charity Hospital alone resulted in the loss of 98 beds. 200 beds are unavailable while the New Orleans Veteran's Hospital and other private hospitals remain shuttered. According to a survey taken on June 14, 2006 a total of two psychiatric beds were vacant within 25 square miles of the city of New Orleans. On the same day, not a single inpatient substance abuse detoxification bed could be found within 75 miles of Baton Rouge.

- This is only compounded by a crippling shortage of mental health professionals, many of whom lost their offices and homes and chose not to return. Recent surveys found that only 140 of 617 primary care physicians have returned to the area.

- An American Psychiatric Association survey found that 22 of 196 psychiatrists are still practicing in New Orleans. 100 of the 400 pre-

Katrina physicians still participate in Medicaid. In December of 2006, LSU Sciences Center laid-off 127 physicians and Tulane University let 180 clinical faculty go

- I realize that I just ran through a lot of numbers quickly. But what I want everyone here and everyone listening to this hearing to understand is that these numbers add up to an absolute crisis situation for individuals already under the heavy burden of rebuilding their lives. They deserve help. They deserve our attention. Most of all, they deserve to be able to access mental health care for their needs.

- There have been a number of efforts undertaken by state and local government mental health officials as well as private mental health care practitioners to help. In fact, we will hear from Dr. Howard Osofsky, Chairman Psychiatry Department, LSU Health Sciences Center. His Center has been running a successful program to treat individuals in Louisiana. That program's federal funding was cut, and the exact reason isn't clear.

- Luckily, I was able to add an amendment to the Labor HHS Appropriations bill to restore this funding. I am interested to hear directly from Kathryn Power, Director Center for Mental Health Services Substance Abuse and Mental Health Services Administration (SAMHSA) as to why, given the numbers I have just cited, SAMHSA would even think of cutting funds to a program that is clearly so necessary.

- I am eager to hear testimony from all of our witnesses. Each will tell a story of what they see day to day and what the people they work with experience as they struggle to rebuild their lives and communities.

- I cannot help feel an enormous sense of sadness when I read statistics like those from the study that said as many as 54% of 4-12 graders in my home state are experiencing signs of depression or Post Traumatic Stress Disorder (PTSD). Yet, I'm glad that we are hearing these statistics because it helps paint the picture more clearly of what it means to recover from a catastrophe. We all know of PTSD because we hear about multitudes of our brave and battle-hardened soldiers returning from a bloody war zone with the disorder.

- Ladies and gentlemen, to give you an idea of what a catastrophe does to people, we are talking about 54% of the 4th through 12th graders in New Orleans suffering from the same symptoms as individuals returning from war—individuals who are trained, prepared, and conditioned for war. How devastating to the lives of Louisiana's citizens, and citizens throughout the Gulf Coast rebuilding and beating the odds that Katrina and Rita set so high against them, must it be to recognize that there is something wrong inside of you, and to know its not getting better, but to be virtually unable to find help anywhere near where you live?

- This is another example of how bad it really is. We have to help these citizens. We have to better understand why this situation is so dire. And we have to make sure that when the next massive disaster takes place, the survivors do not suffer the same fate as the people of Louisiana have been made to suffer.

Senator LANDRIEU. So I thank Senator Stevens for joining me. He has been a real champion in this effort. I would like now to ask for his opening statement, and then when he finishs, I will be introducing our first witness.

We do have three panels, but we intend to move this hearing quickly, and we do anticipate other Members showing up, and when they do, they will be recognized and their statements submitted for the record. Senator Stevens.

OPENING STATEMENT OF SENATOR STEVENS

Senator STEVENS. Well, thank you very much, Madam Chairman. I do not have an opening statement. I look forward to hearing the statements of the witnesses. We have a conference on defense at 3:30 p.m., so I will have to leave at that time. That is why I would just as soon move long.

Thank you very much.

Senator LANDRIEU. Thank you, Senator Stevens.

Our first witness will be Kathryn Power, Director of the Center for Mental Health Services, Substance Abuse and Mental Health Services Administration (SAMHSA). Prior to her appointment, she served for over 10 years as the Director of the Rhode Island Department for Mental Health, Retardation, and Hospitals. She has also served in the capacity as community health director there.

Ms. Power, you have a tremendous amount of responsibility and authority over this Federal program, and we thank you for being here today and look forward to your testimony.

TESTIMONY OF A. KATHRYN POWER, M.ED.,[1] DIRECTOR, CENTER FOR MENTAL HEALTH SERVICES, SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES ADMINISTRATION, U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Ms. POWER. Thank you very much, Madam Chairman and Members of the Subcommittee. I am really appreciative of the honor to appear before you today, and I thank you for the opportunity.

I am going to be brief in my oral response to the questions that you had asked me to address, and I would ask that you make the full test of my remarks a part of the hearing record.

As a mental health professional, I have a special lifelong interest in trauma responsive care. As I started my career as a rape crisis counselor, I learned about the powerful effects of trauma—how trauma could psychologically devastate a person, how the damage from trauma could spill into a person's entire social network, including partners, family, friends, and children. But it does not take an expert in trauma or mental health care to know that times of crisis leave indelible marks etched on our psyches, we need only to look inward. I also learned that healing and recovery are possible and do take time.

Some 50 years ago, I still remember Hurricane Hazel, a deadly and tremendous storm of enormous power that made an enduring impression on my young mind.

[1] The prepared statement of Ms. Power with attachments appears in the Appendix on page 41.

I remember the nuclear accident on Three Mile Island on the Susquehanna River in Pennsylvania. I lived a mere 8 miles away from that accident with my two sons and husband.

And I remember the night of the Station Night Club fire in West Warwick, Rhode Island, in which 100 people lost their lives, and at that time I was the State Mental Health and Substance Abuse Authority. Today, 4 years later, the community and the State are still recovering.

I am forever changed by these events. I am sure that each of you has had significant similar transforming experiences. Some events propel us forward; others test our mettle. Hurricane Katrina did both. While challenges remain, I am convinced that already Hurricane Katrina has taught community, State, and national citizens and leaders ways in which to effect fundamental change in how we understand and approach disaster preparedness and response, particularly in behavioral health, and above all, for the most vulnerable victims of these events.

Effective disaster preparedness and response are an essential part of SAMHSA's public health mission in building resilience and facilitating recovery. That is why, in September 2005, SAMHSA focused all of its resources to assist the affected communities along the Gulf Coast deliver an effective behavioral health response. That is why today we are still responding to the behavioral health needs and outcomes for those still struggling to heal and to recover.

Based on our research early on, we estimated that over 500,000 women, men, and children might be in need of crisis assistance. Our understanding of the risk and protective factors mandated that our work at that time proceeded along two courses that were parallel that emphasized the principles of collaborating with the local and State authorities. The first path was to lower the psychological distress and build resilience for those otherwise healthy individuals for whom the disaster might have increased their risk of behavioral health problems; and, second, ensuring continuity of care for those individuals who had mental and substance abuse disorders already.

SAMHSA alone has provided more than $170 million in mental health and substance abuse funding, including $64 million in 2007. Those funds are also in addition to the Crisis Counseling Program, which is funded by FEMA and administered by SAMHSA, as well as the SAMHSA staff costs that were associated with the mobilization of over 900 Federal and civilian staff that provided mental health disaster services in the region. They include discretionary and block grant mental health and substance abuse treatment and prevention funds.

While much physical and emotional rebuilding remains to be accomplished, the work that SAMHSA undertook in collaboration with Federal, State, and local officials in the affected Gulf Coast regions stand as a testimony of what can be done and what can be done well to help rebuild the emotional health and well-being of a proud population. The process and outcomes of our work to reach out to people through the Crisis Counseling Program, whether to assure them that their feelings were normal and healthy or to urge them toward further evaluation and treatment, were the subject of and intensive cross-site evaluation in July 2007. And, Madam Chairman, that is one of the studies and objective evaluations that

you had asked me to bring, and I brought a copy of that with me today.

While we could say that our work is complete and life in the Gulf Coast today approximates what it was in the days before Hurricane Katrina and her sister hurricanes, we cannot say that. However, it is not for want of effort on the part of SAMHSA and on the part of HHS and on the part of the Administration. The work of building resilience and facilitating recovery begins with individuals in families, in neighborhoods, and in communities themselves. What SAMHSA can do best is to provide state-of-the-art tools, state-of-the-art resources to our colleagues on the ground, and I believe that is precisely what we have done over the many months since Hurricane Katrina.

Today, I believe that the resources and the knowledge are, in fact, placed squarely in the hands of the States, to use as they determine to the best interest of the behavioral health of the women, men, and children throughout the Gulf Region, and all of those who have been affected. In just these past 3 weeks, SAMHSA has offered to continue to work with leaders of the Gulf State Region to bring greater transparency to the process through which resources can be best allocated to meet the behavioral health needs of Hurricane Katrina survivors.

I would be very pleased to answer any questions you may have, and thank you again for the opportunity to speak before you.

Senator LANDRIEU. Thank you.

Let me begin by commenting that clearly your background more than adequately prepares you for the job that you are doing now, and I appreciate the sincerity with which you are approaching it. One of my questions has to do, though, with the law that seems to restrict some funding or most of the funding of FEMA going to crisis counseling as opposed to treatment.

Could you comment about whether you agree with the status of the law? If not, have you recommended a change? And how does that narrow interpretation affect you from actually delivering treatment? Because I understand that the crisis counseling is actually limited to five visits only and no real treatment in terms of mental health needs.

Ms. POWER. Thank you for the question, Senator. I think it is a very important one, and I think that we need to focus on the Crisis Counseling Program (CCP), which really was originally entitled the Crisis Counseling, Training, and Assistance Program when it was started 30 years ago. And I think that even if we just talk about the semantics of that, the origination of the program was basically designed to really be short-term interventions. It was not intended from its origin to be long-term mental health treatment.

One of the things that we have found over the past several years, particularly in working with the Gulf States, is that the component parts of the Crisis Counseling, Training, and Assistance Program are sometimes hard to understand, and we need to explain a little bit more clearly what the particular programs are under the CCP.

So under one program of the CCP, which is the Immediate Services Program, that is the program that is available for a 60-day period that is really designed to hopefully support public education efforts after disasters about behavioral health reactions, and really

the phenomena—and, actually, the upside of what has occurred post-Hurricane Katrina is that for the first time—and I think your Subcommittee is evidence of this. For the first time, people are really paying attention to mental health and substance abuse issues in a disaster. And I really do think that that is such an important step in the right direction from a public health perspective.

The other part of the Counseling Program is the longer-term program, which is 9 months, and that program is really designed, again, for public education campaigns, for short-term interventions, for hotline services, and for individual crisis counseling in the outreach to homes.

What we did do in this particular iteration is that we did create, working with FEMA and working with both Louisiana and Mississippi, another classification of service called Specialized Crisis Counseling Services. And that was, frankly, Senator, the first time that they were able to take the Crisis Counseling Program and say, wait a minute, we think that there might be another level of need that needs to be reviewed; and if the State can justify the need in catastrophic disasters, there was a specialized crisis counseling service that was provided.

Senator LANDRIEU. Do you know how much money was allocated? Because I see here that the total amount awarded to the immediate crisis counseling—I think this is just Louisiana numbers—was $20 million.

Ms. POWER. In the Immediate Services Program?

Senator LANDRIEU. In the Immediate Services Program for declared parishes. Then it looks like there is about $1.2 million for undeclared parishes.

Ms. POWER. OK.

Senator LANDRIEU. Do you know how much of that money was carved out for actual treatment the way you have just described?

Ms. POWER. Well, I think your question actually talked about the fact that there are longer-term treatment needs that are not necessarily being met by the Crisis Counseling Program.

Senator LANDRIEU. Correct.

Ms. POWER. And I think that is true because the Crisis Counseling Program was really expected to meet short-term interventions. The individuals from the State I am sure can verify this. The longer-term treatment was really, I think, identified as being supported through the social services block grant dollars that Louisiana received. So that was what I understand were the plans to use those funds for.

Senator LANDRIEU. Correct, and we received, according to this, $64 million. But my point is since you have testified that it came to your attention, or the administrator's, that perhaps the crisis case program that was crafted 30 years ago was missing maybe an important third level of treatment, say again what you all did.

Ms. POWER. What we did was we had conversations with FEMA and with both the State, both Louisiana and Mississippi, and developed what we called an expanded service through Specialized Crisis Counseling Services, and that was basically intended to try to address some of the needs that you had articulated around substance abuse screening and referral, suicide risk assessment and intervention, teaching stress management techniques and coping

techniques and the prioritization and triaging of particular anxiety symptoms, assisting with the coordination of care, and doing focused interventions with a licensed mental health professional and resource coordinator.

So that was the expanded Specialized Service Counseling, and both Louisiana and Mississippi took advantage of that.

Senator LANDRIEU. Great. And, again, I am trying to get to what percentage of the allocation was directed to that new approach, generally.

Ms. POWER. We will have to get that for you.

Senator LANDRIEU. If you could get that for me, because I appreciate the movement to be flexible and try to respond to the situation, and I think for the record it would be important to know what resources followed that action, because it brings me to—and then I will turn it over to my colleague for any questions. And this is a small program, but it is somewhat indicative. And, again, this is not to be overly critical of you personally or your department, but recently, as you know, I had to, with the help of my colleagues, reinstate funding for a $400,000 grant that was one of the few operational grants in the entire Gulf Coast, very small amount of money but significant to us, $400,000, that was actually eliminated this year in the SAMHSA budget. And I had to, with the help of the other Members of the Senate, reinstate that last week in an appropriations process.

So it leads me to believe that while your testimony seems to be that you are all leaning forward, evidently there is some part of the agency that is cutting back funding when another part of the agency is trying to support additional funding. Now, we fixed that, and I thank the Senators for stepping up. But I cannot keep fixing every $400,000, $300,000, and $200,000 grant. We have got to see some real action, I think, within the Department to make changes that are necessary and recommend things to us for improvement.

Senator Stevens.

Senator STEVENS. Thank you.

Ms. Power, if you think about the national scene with the hurricanes in the Southeast, violent storms in the West, the fires in California, and floods up in New England, isn't it true that there is this problem of adjustment throughout the country today, notwithstanding on top of that we have two wars going on? How do you allocate your resources under those circumstances?

Ms. POWER. Well, Senator, we have certainly through our discretionary grant portfolio and through those programs particularly focused on systems of care for children, particularly focused on the child trauma network, as the Senator had mentioned, and we have a fairly wide portfolio of discretionary programs that we know we will hear from and receive applications from those areas that have been affected by these disasters.

We have seen the effects of the expansion of the Garrett Lee Smith suicide program take effect and take root within college campuses. We have seen expansion of the National Suicide Hotline, which we actually have created another hotline for purposes of response. So we try to use our discretionary program, even though it is not huge, we try to make sure that discretionary program can appropriately respond to the mental health and substance abuse

needs of populations. It is very huge, and particularly because you as leaders in the Senate and in the House are saying mental health is really important, the emotional lives of people is very important, and it is finally being given the same level of attention as physical health care. We applaud that and think that is wonderful. And as people become more attuned to and understand what psychological first aid is, what resiliency factors work well for people, we hope that education and training and awareness are going to go a long way for people to be able to understand what they can do for their own mental health in terms of traumatic reactions, what they can do to support their families and themselves in ways we have learned from September 11, 2001. We are learning from Hurricanes Katrina, Rita, and Wilma. We are learning from each disaster what are some of those risk and protective factors that we need to educate people more about so that, in fact, people can be armed with much stronger personal tools and techniques to be able to handle what is really quite unrelenting pressure. With one crisis after another, the environment in which we live, with the status of life today, it has been very difficult to try to react.

So we try to use our discretionary portfolio, and we are also trying to get information out about how do you assess your own mental health, what is good psychological first aid, what are good tools and techniques that you need to have as an individual. Nobody ever taught us that when we were growing up, and we are finally learning that is an important part of our educational system and an important part of our family-strengthening system.

Senator STEVENS. Well, my comment would be that I am from the generation where we did not have that luxury, but beyond that, it does seem to me that we are not doing enough in our educational process. You just said we used to learn it at home, and if we are not going to learn it at home, we have got to learn it in school. What are we doing about putting us into the educational system and dealing with prevention rather than reaction?

Ms. POWER. One of the things that I did, Senator, in my life is that I taught elementary school. I taught fifth and sixth grade, and then I taught high school math for several years. And as a parent and as a teacher, I have always believed that we have not necessarily used our schools and the opportunities in our schools to build mental toughness and mental competency. And so we have adopted an emotional competency agenda using work that is well researched in terms of bringing emotional competency skills into the classroom and helping students build their sense of mastery in terms of their own emotions. And we have some selected programs that we use with our Safe Schools Healthy Students grantees that we work with, with the Department of Education. We have anti-bullying programs. We have a number of focused school mental health programs that really do reflect and, I think, show an appropriate way to encourage our teachers, our family members, and our students to become much more knowledgeable about their own competency and their own emotional level of mastery for the way they are, the way they think, the way they behave, and the way they function. And I think that there is very powerful work going on in our schools that are selected sites to teach us more about how do we get better at that and how can we push that out further and

make not just centers of excellence but have it across the United States in all of our school systems.

Senator STEVENS. Thank you very much.

Senator LANDRIEU. Thank you.

I would like to follow that up now because my question would be specific. As you know, we lost—probably close to 50 schools were destroyed just in Orleans Parish, another 7 in St. Bernard, and any number of schools throughout the Gulf Coast, elementary and high schools were destroyed, and that whole system is being rebuilt and revamped.

Does SAMHSA right now have any current initiatives with the school boards or parishes or counties along the Gulf Coast, any extra support that you all are doing directly, not through social service block grants, to help with mental health counseling in the schools? And if so, where? And if not, why not? Is it a lack of resources?

Ms. POWER. I am not familiar, Senator, with anything specific. I will go back and offer you my review of, if we have any specific grantees that may be receiving some of our prevention and school mental health promotion grants, and I will take a look at that and make sure that you have that information. I did not look at that portfolio before I came today. I apologize.

Senator LANDRIEU. If you could get that information to us.

Ms. POWER. Absolutely.

Senator LANDRIEU. Because this is a real need in our schools. The schools have become a potential stabilizing force in the community.

Ms. POWER. Absolutely.

Senator LANDRIEU. Stabilizing to the children that have no home, no church, no playground, no neighborhood, and stabilizing to the parents who can put their children in school during the day and manage to either gut their home, rebuild their home, or go back to work, or all of the above. And schools are becoming in this recovery the sort of necessary and essential anchor.

Now, hospitals are anchors, too, and churches are anchors, and synagogues, but schools, I am observing as a leader in this community, are becoming sort of the central anchor. And it seems to me that would be a good place of delivery to help and counsel children who can be identified by their teachers and administrators, and also a place where parents can be receiving information about the state of their own mental health and strategies or coping mechanisms as you have suggested. So I would like you to look into that.

Just two more questions, and then we will move to the second panel. According to my records, in 1995 and again in 2002, the FEMA Inspector General recommended that FEMA and SAMHSA should collaborate to evaluate the overall effectiveness of this Crisis Counseling Program that you have described and we have talked about. Do you know if there has been an official ongoing collaborative, either then or now, between FEMA and SAMHSA to see if this program could be restructured to meet some of the needs that we have identified in your testimony?

Ms. POWER. I came to SAMHSA in 2003, Senator, and since I have been there, we clearly have an ongoing cooperative coordination arrangement with FEMA on a regular basis to talk about the

Crisis Counseling Program. We did have—and this is the other piece that I brought—a final evaluation, outside external evaluation on the Crisis Counseling Program done in July 2007. So that I am delivering to you today so that you can see that this is a formal evaluation of the Crisis Counseling Program.

In that evaluation, they have made very specific recommendations for FEMA and SAMHSA to sit down and have a conversation about what is the next evolution on this program, and, in fact, we are starting those discussions and have had those discussions and are going to continue those discussions. And as a matter of fact, in preparation for today's hearing, I talked to the mental health commissioners and substance abuse directors of the Gulf Coast States and said give me your ideas about where we need to go, because we have this set of recommendations, and we will be sitting down with FEMA and having those conversations.

Senator LANDRIEU. OK. Thank you for your time and your attention, and we will accept that report, and it is something that our Subcommittee is going to spend some time focusing on because we think the need is real, it is severe, and it needs to be addressed.

Ms. POWER. Thank you, Senator. I really wanted to just add one other item which I did not get a chance to speak about some of the other things that we have been working on. But I will tell you that just recently we learned that the State of Louisiana had spoken with the Department of Health and Human Services about the need that they had relative to the shortages of mental health professionals in the area, particularly in the areas that you described, and that the shortages in those mental health professionals were really a very significant barriers to utilizing the existing resources that were available for delivering care. And I wanted to just report—which I think is good news—that the Department has offered to assign Commission Corps officers who have mental health expertise to fill vacancies in the State and local clinics until full-time staff can be recruited in the areas. And we are really excited about the opportunity to be able to have the Department in discussions with the State Health Department on the feasibility of that, and I think that is really a wonderful step in the right direction.

Senator LANDRIEU. Well, I appreciate that, and I hope that your remarks will be noted in this Subcommittee, but also when monies are not expended, which sometimes happens in many of our accounts, despite the ongoing efforts for recovery, sometimes in most instances it is because of the shortage of personnel or the complete destruction of the facilities that would normally absorb the funding. And the Gulf Coast should not be penalized for that, but the programs should be made more flexible so that those resources can be used more slowly over time as our personnel come back.

Thank you so much.

Ms. POWER. Thank you very much, Senator.

Senator LANDRIEU. If our second panel would come forward, I will do your introductions as you take your seats. Our first witness will be Dr. Anthony Speier. He is the Director of Disaster Mental Health Operations for the Louisiana Office of Mental Health. Prior to Hurricane Katrina, Dr. Speier served as Director of the Division of Program Development and Implementation for the Louisiana Of-

fice of Mental Health. He served as Chair of Adult Services and brings many years of experience to his job.

Jan Kasofsky, our second witness, is Executive Director of Capital Area Human Services, and let me thank her for her great work. Many of the citizens of Orleans and St. Bernard fled to the Capital Area, and her agency has done just a heroic job to literally provide service and care for hundreds of thousand of citizens as they fled to higher ground. She has any number of experiences that give her the ability to do the job that she is doing now.

Dr. Kevin Stephens, good to see you again. He is currently the Director of the City of New Orleans Health Department. He serves on the clinical faculty of Xavier University, Dillard University, the LSU Medical School, and Tulane Medical School. It should be noted that Dr. Stephens stayed at Charity Hospital through the disaster, was there during and immediately afterwards, and has been helping to lead the redevelopment of our health care system in the region.

So I hope that you all will limit, of course, your remarks to—I think we have 5 minutes each, and then we will open it up for questions, and we will start with you, Dr. Speier.

TESTIMONY OF ANTHONY H. SPEIER, PH.D.,[1] DIRECTOR, DISASTER MENTAL HEALTH OPERATIONS, OFFICE OF MENTAL HEALTH, LOUISIANA DEPARTMENT OF HEALTH AND HOSPITALS

Mr. SPEIER. Thank you, Madam Chairman, Senator Stevens, and Members of the Subcommittee. I would like to spend a few moments giving a little history about the mental health system in Louisiana prior to Hurricane Katrina.

Governor Kathleen Blanco and Senator John Breaux initiated a health reform movement in Louisiana in 2004, of which mental health reform was a major component. The storm came, challenged us in many ways, but that process has moved forward. And we now operate under a strategic plan for access to mental health care, which is the State's plan to organize services, and it goes beyond just what the Office of Mental Health provides. It refers to services that occur throughout both the public and private sector.

The basic principles of that plan is the use of evidence-based practices, providing effective services for people of all ages, provide accessible crisis services, provide combined access to primary and mental health care, and provide individualized supports for persons with serious and persistent mental illness and people with serious emotional disturbance.

There is a very real crisis in Louisiana and the Gulf Coast, as you both have mentioned. The mental health needs, as we have seen them in people with serious and persistent mental illness, are tremendous and have gotten only worse from the storm. When you look at the general population, there have been recent studies by both the Kaiser Family Foundation, by the Louisiana Public Health Institute, and by Dr. Kessler's group. They have indicated over and over how people can access health care, people can access mental health care; the hospitals that they were used to going to no longer

[1] The prepared statement of Mr. Speier appears in the Appendix on page 58.

exist. There is even better evidence that people who have a more compromised situation, people who have less resources available to them, have a harder time accessing health care. This is true for older adults, middle-aged people, and, most profoundly, our children.

Since September 2005, I have directed the Crisis Counseling Program, what we call "Louisiana Spirit," and what we have seen in that program is that we have people who never before would have used mental health services are now desperately in need of them. Just to give you all a few numbers that represent the scope of work we have done, since September 2005, we have made over 2.6 million contacts with people throughout the State. Of those, we have made contacts with people in southwest Louisiana and southeast Louisiana. We have provided over 400,000 more in-depth counseling sessions to a little over 239,000 individuals, of which 100,000 of those individuals are in the greater New Orleans area. And what we are finding is those numbers are not decreasing at this point in time. Recent numbers from our crisis lines show a doubling of numbers since August and September over June and July, and we think the anniversary issues and the prolonged rate of recovery have had a major impact on people and still has that impact.

You mentioned the Specialized Crisis Counseling Program, which is one of the very positive things that we have been able to accomplish with FEMA and SAMHSA, and in our program, specialized crisis counselors are providing services to people who are experiencing suicidal ideation, who are experiencing senses of hopelessness and helplessness.

We find from our people that they are experiencing fear. They are fearful for their children. They are fearful and anxious about the next storm and living in a trailer. People are sad, and when they get home, they find that they all of a sudden experience loss and grief. So they get their home built, and then that rush is gone, and all of a sudden the losses are tremendous that they experience, and they need to be able to deal and treat the grief they are experiencing.

In Louisiana today, instead of things resolving themselves, we still have over 40,000 people in trailers, which we estimate between 200,000 and 250,000 people are still in a displaced status, both in Louisiana and in our neighboring States. People who are still struggling with the early stages of disaster recovery, which usually take place in the first 9 months after a disaster—or 6 months after a disaster, and we have experienced that with a number of storms. This storm is not stopping.

Senator LANDRIEU. Could you try to wrap up in the next 30 seconds?

Mr. SPEIER. I will. The points I would like to make about what we need to do: We need to meet the survivor needs. We need a process of providing quick referral and treatment for trauma, anxiety, and depression. We need to assist people with profound feelings of loss and grief; ensure rapid response to psychiatric emergencies; provide commitment to group interventions to help survivors re-establish security in their lives.

And what we need to do for future disasters is to provide a national strategy where we do psychological first aid; we build a mo-

bile volunteer professional corps of mental health professionals; we institute mitigation programs where we can plan for disasters. Right now we are not able to plan for a disaster through the FEMA process if it is a mental health issue. We need opportunities to have continuity of operations plans, and we need to be able to have 5-year cycles of funding that are flexible and allow us to move the dollars as we so need so that we meet the needs of the people rather than the needs of the Federal regulations. Thank you.

Senator LANDRIEU. Thank you very much. Dr. Kasofsky.

TESTIMONY OF JAN M. KASOFSKY, PH.D.,[1] EXECUTIVE DIRECTOR, CAPITAL AREA HUMAN SERVICES DISTRICT, BATON ROUGE, LOUISIANA

Ms. KASOFSKY. Madam Chairman and Members of the Subcommittee, thank you for the opportunity to testify about the mental and physical health needs and disaster response in the greater Baton Rouge area. I am Dr. Jan Kasofsky, Executive Director of Capital Area Human Services District, the publicly funded mental health authority in the Baton Rouge area. The impact of Hurricane Katrina far exceeds the geographic destruction in New Orleans. As you have already mentioned, over 350,000 New Orleanians initially evacuated to the Baton Rouge area, and the efforts by the provider community led the groundwork for a best practice approach for normalizing access to ongoing care.

Between 30,000 and 40,000 evacuees remain, some having chosen to stay, while others are using it as a staging point to return to their city. There is no question that the rate of disabilities and homelessness in this population, particularly mental illness, is much higher than in the typical population and is reflected in the volume and acuity data in this region.

The public adult mental health clinics currently have a 65-percent increase in new clients, more patients in crisis, and a 10- to 12-week wait to see a psychiatrist. The wait time for children is now 6 to 10 weeks. Although the mental health clinics have added social workers and streamlined intake processes, we cannot meet the capacity expansion demands to see and retain patients without adding psychiatrists. Although we have the funding, we have not been able to recruit needed psychiatrists. It is essential that the recruitment incentives for physicians in the greater New Orleans area be available to the greater Baton Rouge area to support capacity expansion.

The local private and public emergency departments have a sustained 30-percent increase in behavioral health crisis, totaling over 720 individuals per month, with all of these individuals needing hospitalization. The large number of people using the emergency departments is a clear indication of increased trauma, the loss of public and private beds from the greater New Orleans area, and a massively overwhelmed local public outpatient clinic system. Clearly, increasing clinic capacity will greatly assist the emergency departments.

A specialized psychiatric emergency department is being established locally as one of nine components of a crisis system. Services

[1] The prepared statement of Ms. Kasofsky appears in the Appendix on page 71.

there will include administering medication, counseling, referrals, and linkage to ongoing appropriate and alternative services. This modular unit is being developed while we await receipt of the funds into our budget.

Homelessness is now stable at a 15-percent increase, with 80 percent noting their disability as mental illness and addictive disorders and 37 percent noting that they came to the area due to Hurricane Katrina. With 876 FEMA trailers still occupied, though scheduled for de-commissioning soon, and additional families still receiving rental subsidies for market housing, it is anticipated that, given their income levels, many will enter the homeless population once subsidies end. There must be acknowledgment of the levels of ongoing need by the evacuees for accessible, affordable housing, especially for those with disabilities.

Capital Area is newly contracting for housing and treatment for individuals with addictive disorders and mental illness to serve 120 individuals annually. Within the region, an additional 50 to 75 transitional housing beds are under construction, and permanent supportive housing has increased by 31 beds. There are an additional 162 units currently under construction or in the development phase.

While primary care needs are being met, access to public specialty clinics is extremely limited. There is an average 17-week wait for life-sustaining treatments needed from cardiology, pulmonology, endocrinology, and other clinics. Access is limited by funding for additional medical specialists.

I will briefly identify five recommended changes to the Federal disaster response which hindered or complicated our local response and recovery efforts.

One, psychiatric medicines, methadone, and pain management medicines are crucial and must be included in the Federal formulary in a disaster.

Two, a building from which to deliver care at congregate settings is required for providers to deliver confidential care, provide privacy, and be sheltered from the weather.

Three, FEMA must establish transportation to nearby service delivery facilities from the non-commercial congregate sites to avoid dependency on mobile teams.

Four, the Spirit teams must be able to make direct referrals for people experiencing trauma and in need of an immediate intervention to ensure service access. The Stafford Act must allow this during the immediate disaster response.

Five, in a disaster, the locally delegated authority must be allowed to lead one unified approach as identified by the National Incident Management System.

In conclusion, I want to thank this Subcommittee for its attention to our needs and its financial assistance on behalf of the greater Baton Rouge area evacuee and provider community. In this continuing crisis, we still have ongoing recovery needs, especially for psychiatrists and medical specialists to expand capacity and for accessible and affordable housing. Thank you.

Senator LANDRIEU. Thank you very much, Doctor. Dr. Stephens.

TESTIMONY OF KEVIN U. STEPHENS, SR., M.D., J.D.,[1]
DIRECTOR, NEW ORLEANS HEALTH DEPARTMENT

Dr. STEPHENS. Good afternoon, Chairman Mary Landrieu and Ranking Member Ted Stevens, distinguished guests, all of you who are present here. I am Dr. Kevin Stephens, Director of the New Orleans Health Department, a city that contributes greatly to our culture and commerce in this country, and it is a city, however, that is still facing a crisis in the availability of mental health care after the worst natural and manmade catastrophic disaster that occurred in the United States.

Thank you for providing this opportunity to share with the Subcommittee the urgent mental health care needs of our community, and we appreciate your continued concern about our progress in rebuilding the mental health system.

Hurricane Katrina devastated our infrastructure, flooding seven of the nine hospitals and many other medical facilities. And so what I want to do, I want to focus on three things, three critical problems: One, the lack of an adequate number of available psychiatric hospital beds for citizens in our region; two, the ongoing challenge of recruiting and retaining mental health professionals, as we heard earlier in this hearing; and, three, the criminalization of mental health patients that system gaps are causing. I will outline what existed before Hurricane Katrina, what is currently available, and, finally, what we have to do to adequately serve our citizens.

Prior to Hurricane Katrina, we had over 350 public and private psychiatric beds available in New Orleans, and that included 152 beds at the Medical Center of Louisiana, 30 at New Orleans Adolescent Hospital, and others at DePaul and the VA.

The beds at Charity were critical because they served our large population of uninsured and underinsured citizens, and that facility included 92 inpatient beds, as well as 20 dual diagnosis beds for those with psychiatric and substance abuse problems, and a critically important 40-person capacity Crisis Intervention Unit. This specialized unit allowed for individuals in psychiatric crisis to be observed for evaluation in a safe place. The Charity CIU served as the single point of entry or central triage station. First responders were able to transfer care of mental health patients to a designated area for medical clearance and psychiatric evaluation, which was done within one hour. The proximity to the emergency department provided the seamless and critical medical clearance for patients to be moved to the CIU for evaluation, treatment, and release or admission, depending upon their illness. The CIU also accepted referrals from other facilities which depended on Charity to appropriately triage the patients.

Currently, there is less than half the number of public and private mental health beds in the city as we had prior to Hurricane Katrina. This is a particularly acute problem since public hospital beds are unavailable to the uninsured. Of the two Medical Center of Louisiana campuses—University and Charity—only University Hospital has reopened. It provides emergency department services

[1] The prepared statement of Dr. Stephens with attachments appears in the Appendix on page 93.

and has 10 beds in a temporary mental health emergency room extension (MHERE) unit. University Hospital also has approximately a 20-bed detox unit, and the State has opened approximately 52 beds at the New Orleans Adolescent Hospital and the DePaul sites, with plans to increase the number by the end of this year.

Thanks to the perseverance of Congress on Hurricane Katrina-related health issues and the recent hearing, Secretary Leavitt gave the area $100 million for primary and mental health. We think that these are critical dollars for the area, but it is too early for us to determine their impact on mental health because we just got these funds several weeks ago. However, these funds will not increase the number of inpatient psychiatric beds.

We are also very grateful to the Medical Center of New Orleans because—at Charity, because they have expanded and responded to the need. However, because of a steady stream of people returning home and new people coming to the area, there is an increasing prevalence of mental illness since the storm.

Recent reports, as you will hear later, have said that the prevalence of serious mental illness has pretty much doubled from pre-Hurricane Katrina. In fact, our EMS department averages one call per day of suicide attempt, bizarre behavior, or actual suicide. We average 190 police calls per month from our 911 call log for serious mental illness and threats of suicide.

The city has three things I will just briefly say: One, the lack of a CIU in the area. However, the MHERE at University Hospital does not accept referrals from other hospitals; it does not serve as a single point of entry for mental health, but does provide some services, but we are in need of more. If you look in the presentation here, you can see that the ER time for the EMS is very prolonged. Our police department has troops that go and wait in the emergency room to get services because the emergency departments are really clogged up with mental health patients.

A centrally located CIU is also important, and I just want to get to the shortage of personnel. We are working with the Acting Surgeon General to temporarily help us shore up our mental health professionals.

Last, we have to create a system that does not criminalize the mentally ill who go into jail due to lack of services.

The Stafford Act does provide some resources for crisis counseling after major disasters. However, the act does not provide for psychiatric services or funding for prescriptions.

The lack of portability of Medicaid from State to State also must be addressed to improve access to health and mental health care following a disaster. States should be required to give full faith and credit to the evacuating State's Medicaid program for the time of the declared emergency. This is critical for mental health patients, especially now as we go through the next hurricane season and so forth, especially when you evacuate to other States, you have to have your insurance, or else you have no insurance, and then you are back in the problem again. And these people have mental illnesses. That makes it more difficult for them to navigate. So this portability of Medicaid from State to State, especially during a declared emergency, is really something that we think is critical.

I would just like to thank you for this opportunity to speak on our mental health status and as well as your commitment to New Orleans. And though we face a historic crisis, we are hopeful that with your assistance we can solve the remaining problems and build a better and stronger community for everyone. Thank you.

Senator LANDRIEU. Thank you very much.

I have asked my staff to walk over to the charts here because I think it is an important place to start the questions for this panel.

This is a chart of mental health resources in New Orleans before Hurricane Katrina and after Hurricane Katrina,[1] and I want to say again that if time would have allowed, we could have had the same testimony for every parish and county that is affected. Please do not take that this hearing is just about New Orleans. It is an attempt to show the needs in the region as well as what I have started to refer to as the "host communities," led primarily by Baton Rouge, but Hammond has been another host community; Lafayette, Louisiana, has been a host community; Alexandria, Louisiana; Shreveport; where people are still displaced in other places, and I am sure this is the same for Mississippi. The people of the Gulf Coast just did not disappear. They have gone somewhere else, either to north Mississippi or central Mississippi or to Alabama, until they can get back to their homes.

So this is a crisis that is going on throughout the whole Gulf Coast, but these are just some numbers. If you can see the psychiatric beds in New Orleans, there were 350. Now there are 77. In the greater New Orleans area, it was 668 and now it is 289. Physicians in New Orleans, 617; now 140. Psychiatrists in New Orleans, 196; today it is 22. Doctors participating in Medicaid was 400; today it is 100. And this Subcommittee intends to give the statistics for all the parishes and counties for the record. None will be as dramatic as this, but I would say that they are all going to have a significant reduction of beds, facilities, and professionals needed to solve this problem. And we intend to not just continue to talk about this, but to come up with solutions. And the Federal Government has an obligation, in my view, to be part of the solution, but we are not the only entity responsible, and that leads me to the questions to you, Dr. Speier, for the State of Louisiana.

I understand the legislature—and I am not sure if it was last year or the year before—recently cut funding to your office by 23 percent. Is that true? If not, was there any decrease at all in funding? Was there an increase? And can you explain your budget situation right now from the State level to your office?

Mr. SPEIER. I am not aware of the 23-percent decrease. I am primarily with the Crisis Counseling Program, so I have been involved in that, Senator, and cannot really speak to that shortfall. I can speak to that we have received an increase this year in our budget funding, annualizing many of the funds that were provided through the social services block grant, programs the legislature did not have any idea that money would continue. They had reviewed our mental health activities and made strategic investments out of that many. Rather than that block grant money just coming in and

[1] The chart submitted by Senator Landrieu appears in the Appendix on page 175.

going out, it laid the foundation for the State to then come in and build sustainable programs. And so this year, we have received I know at least $13 million towards those programs.

Senator LANDRIEU. Because you are saying the Federal Government—if I can interpret what you are saying—allowed the State to keep its social service block grant funding and not have to return it at the end of the year, which is customary. It allowed them time to build a basis of services. I do not want to put words in your mouth, but is that what you are testifying to?

Mr. SPEIER. The social services block grant money was one year——

Senator LANDRIEU. They were one time, but they are allowed to be kept, as I recall——

Mr. SPEIER. Correct.

Senator LANDRIEU. Didn't we extend the deadline?

Mr. SPEIER. Yes, and they extended the deadline, but it was late in the extension of that deadline. And so we still have those social service block grant monies, and the State used its own resources to expand mental health services during this fiscal year.

Senator LANDRIEU. Because it is very important as we try to marshal better, more streamlined, more effective, more muscular Federal response, that the Federal Government believes that the States and the local governments are doing their fair share as well in terms of finding solutions.

What is the State's most pressing mental health need? I know you listed several, but if you had to say what is on the top of your list from your perspective, what would it be?

Mr. SPEIER. The State's most pressing mental health need is human resources and the resources necessary to deal with the hurricane recovery population. The resources that come into the State now through Federal funds for—non-disaster Federal funds and State funds are targeting people with serious and persistent mental illness, people with serious emotional disturbance. Those are the primary populations, and the populations mandated by the State.

The new population which has emerged and continues to manifest itself in more significant ways is the hurricane recovery population. The people who are worn out and are becoming now symptomatic in significant ways, we do not have the treatment dollars to address this population nor the workforce. We have experienced a 23-percent shrinkage in the mental health professional workforce, as your graphs indicate. It is what we have experienced all over the State, having to close admissions for the first time in clinics in north Louisiana because of the loss of workforce.

So what we need, in my opinion, is incentives that the Federal Government could help us establish to retain and recruit a workforce and long-term funding for programs like the Crisis Counseling Program that included—and include a flexible use of the funds with treatment dollars so we can address issues of trauma and clinical depression.

Senator LANDRIEU. I will just summarize the first part of it because this is very interesting to me. In a catastrophic disaster, or even a large-scale disaster, you are paralleling your efforts to the population that had mental illness before, and the current situation

has exacerbated it, making their treatment options more difficult, their places of service sometimes destroyed, whole new systems have to be set up. But what you are also saying is there is an emerging population of people who were very healthy or relatively healthy mentally before that are now showing symptoms of mental illness that basically have no structure within the current framework to basically be treated or dealt with.

Mr. SPEIER. That is absolutely correct.

Senator LANDRIEU. All right. Doctor, why don't you go ahead and just take that question from your perspective, what would be—and your testimony was excellent, and, again, let me thank the Capital Area for everything that you all did to help, and continue to do. And we, I believe—I have said this many times. The Federal response has been not what it needs to be to our host communities across the board, and we are continuing to work on that.

But what would you say from your perspective is the most immediate and the need of higher priority from your view?

Ms. KASOFSKY. Well, I think the point you just summarized that Dr. Speier said is very crucial. We are seeing more people who are traumatized who actually do meet the State's criteria for mental illness, and so I have been completely surprised about the number of people that call for our services that actually do meet the serious and persistent now. And so we have to increase our capacity for those folks because they are so unstable.

However, as you said, there is another population, there has always been another population, that have very few options of where they could go. It was typically other not-for-profits that had set themselves up to see folks who are experiencing mental health issues but hopefully never needing the services that the government would provide for a serious mental illness. That population was not served well prior to Hurricane Katrina because there are just not enough providers that were offering it. And now at this point we really do need to see that those folks are seen so that they can get some services so that they do not ever meet our criteria.

However, as I mentioned in my testimony, my clinics are having a sustained increase of 65 percent of people meeting our criteria, people are waiting much longer than they have ever waited before between treatments, and we did see a lot of our local population actually drop out of treatment during the height of the disaster when we had to see the new folks who had escaped harm in New Orleans. And so we know that the frequency by which we need to see them is not where it should be because we do not have enough physicians or psychiatrists, to see them.

So although I think it is huge that we address the crisis needs that Dr. Stephens is talking about and the needs of people that meet the criteria in my clinic, we cannot just focus on crisis. If we only put our resources in crisis, that is all we will ever be able to support. And so we need to look at the other interventions for people who are experiencing mental health needs who are not seriously mentally ill, have their interventions in a timely way. We need to meet the needs of people that are chronic and seriously mentally ill. They have to be able to have access to doctors, their medicine, and the other needs for wrap-around service. And I include homelessness. Housing is so critical. It is just not possible,

it is not feasible to stabilize people when they are half-living on the street or in a car.

So I would say from my perspective that timely interventions for people in need who do not meet our criteria, the interventions for people that do meet our criteria so that they can be seen in a timely way, attain and be maintained in stability, and also have housing so that they can get on with their lives.

Senator LANDRIEU. Let me ask you this, and if it is in your testimony, forgive me, but what are the costs associated with what you could identify as sort of the typical case of a middle-class family who was not mentally—or person who was not mentally ill before but who shows fairly severe signs of stress associated with either the loss of home, community, etc., what would be the—and assuming that the health insurance that they still have—which is a big assumption, but assuming they have it, does not cover mental illness because most do not—and the Federal Government has yet to mandate that, although we are very close to doing so, as you know. What would the average cost be for a person to receive either treatment or medicine, to move them from this point to a healthier situation? I know this is a broad question, so all of you could answer generally what you think the cost might be to an individual.

Ms. KASOFSKY. I am going to need to claim incompetence in that area because the people that come to see us, they are not typically middle-class people because of their disabilities. And so we do see really only the people that are seriously and chronically mentally ill.

Senator LANDRIEU. Dr. Stephens, would you know what the cost would be to a family that is not covered by a government program?

Dr. STEPHENS. I do not know, but what we can do after this hearing, we can go back and I can compile that and give you something other than just off the top of my head, something that is based on some real numbers, and get it back to you.

Senator LANDRIEU. That would be very helpful. Dr. Speier.

Mr. SPEIER. And we have the same situation where we have the Medicaid dollars; we know what people spend in that arena. We do not have a private sector number. One of the limitations is the kinds of services that are available and accessible to people, especially people who are not in the Medicaid system.

Senator LANDRIEU. Well, it brings me to a point that has been a pattern or a common thread through all of these hearings as I have observed and tried to help with this recovery, is the point that in a normal situation you have a population that is either disabled, elderly, very poor, sick, homeless, that are covered by government programs, and it is, of course, their income limits that are sometimes very low. In other words, you can get your services if your income is below $10,000 a year or $15,000 a year. But if you think about the hundreds of thousands of people that were affected who were generally healthy, single earners, or double-earner families, who now find themselves homeless, without a neighborhood, were healthy before and working before but are unable because of the catastrophe. If we do not increase the income limits, this whole group is basically without an ability to finance their own mental health and physical health recovery. And it is something that I think the Federal Government is having a very difficult time un-

derstanding about this population of recovery population. It is not only your typical poor people who have limited resources that are struggling desperately under the circumstances, but it is a whole new population of middle-income families who are otherwise generally healthy, financially, emotionally, etc., that without a change in the Federal programs are basically left without virtually any assistance or aid. And that is what is happening along the Gulf Coast.

We are having a hard time explaining to the Federal Government that while we understand we want to and will continue to commit our first to the poorest first, and the sickest—and we will always have to do that just because of the moral obligation—that there is still this huge population when you look at the mental health—in particular the mental health needs, but it is not only limited to mental health.

Dr. Stephens.

Dr. STEPHENS. Thank you, Senator. I will look at that, and perhaps even another graph that you could look at is the mortality rate. It was reported by the AMA in the journal *Disaster Medicine* that for the first 6 months in 2006, we had a 47-percent increase in the mortality rate in New Orleans. And, in fact, if you look at the mortality rate of New Orleans and compare it to the rest of the country, before Hurricane Katrina we were elevated. So this is 47 percent on top of that. And part of it is the mental illness and so forth that we see, and that is something that I think we definitely need to look at and address also.

Senator LANDRIEU. And, Dr. Stephens, this will be the last question of this panel and we will move to the third, but could you comment briefly? We have had hearings and it has been the focus of attention about the criminal justice situation, the rising murder rate, the challenges to the criminal justice system. Just today the district attorney of New Orleans stepped aside and a new district attorney has taken over to try to stabilize the situation. But is there a nexus potentially between lack of mental health services and a rising crime rate? Do you have any studies that would suggest that or any data, either today you can give that testimony or submit it later, or any comments about from your perspective if there is any relationship there?

Dr. STEPHENS. Well, thank you again very much. No doubt, like in the past 6 months, we average 500 hours in transporting patients to institutions. The police in July logged 534 hours at the emergency room for our EMS. Our EMS director said we waste basically a million hours in personnel costs and unbilled revenue over the last 6 months because of waiting.

And so when you go to the prison system, they have the largest psychiatric hospital, if you will, in our city, which I think is a shame that the largest psychiatric care that you can get is a 60-bed unit at the prison. We have 15 female and 45 male. And I talked to Dr. Gore, the prison medical director, and he said he was having the same challenges. He has one full-time psychiatrist and one part-time psychiatrist and 60 patients, and these are critically ill. And then what happens is their patients either are sent back into the community or they are discharged from home or they are discharged from prison without places to go, and so they end up ei-

ther getting hurt or hurting someone else and contributing to the crime problem and recidivism and so forth. It is just problematic.

Senator LANDRIEU. OK. Thank you very much. It has been an excellent panel. I appreciate it.

They have just called a vote at 3:45, so I am going to recess for 10 minutes, and we will resume the third panel probably right at 4 o'clock. Thank you so much.

The Subcommittee will stand in recess.

[Recess.]

Senator LANDRIEU. Our hearing will resume. Let me begin by introducing our third panel, if you all will have a seat.

Our first witness on our last panel is Dr. Ronald Kessler, a Professor of Health Care Policy at Harvard Medical School and Director of the World Health Organization's World Mental Health Survey Initiative. He directs the Hurricane Katrina Community Advisory Group. Thank you, Dr. Kessler, for joining us and for all the things that Harvard University across the board has done to help us. We are really grateful for your support, and the many of universities in the country that have stepped forward to help.

Dr. Howard Osofsky is Chairman and professor and head of the Department of Psychiatry at LSU. He has been in the forefront of this recovery effort and a long-time champion of people with mental illness and mental challenges, adults as well as children. He is a Psychiatric Association member, American Psychiatric Association member and American College of Psychiatric Fellow. We thank you very much for your help and support.

And then Mark Townsend is a professor of psychiatry and Vice Chairman for General Psychiatry at LSU Health Sciences Center in New Orleans. He has extensive experience in community psychiatry, having served as medical director of the LSU Partial Hospitalization Program and is an assertive and active member in community team treatment.

So I thank you very much, all of you, and we will start with you, Dr. Kessler.

TESTIMONY OF RONALD C. KESSLER, PH.D.,[1] PROFESSOR OF HEALTHCARE POLICY, HARVARD MEDICAL SCHOOL, AND PRINCIPAL INVESTIGATOR OF THE HURRICANE KATRINA COMMUNITY ADVISORY GROUP

Mr. KESSLER. Thank you, Madam Chairman and Members of the Subcommittee. As you mentioned, I am the Principal Investigator of the Hurricane Katrina Community Advisory Group, and this is a group of about 1,000 people that we assembled shortly after the hurricane. It is representative of all those who were pre-hurricane residents of the areas affected by the hurricane who we asked to allow us to follow over time in a series of surveys to track the mental health and well-being of people in the population. This is a series of studies funded by the National Institute of Mental Health, FEMA, and by the Assistant Secretary for Planning and Evaluation at HHS.

In our baseline survey, we found that about 14 percent of people who were residents of the hurricane-affected area met criteria for

[1] The prepared statement of Mr. Kessler appears in the Appendix on page 100.

SAMHSA's definition of a serious mental illness; another 21 percent met criteria for some other mental disorder according to the standard DSM categories, and this is roughly twice as high as what we find in typical general population surveys.

We also found, though, that unlike typical general population surveys where we find that women have higher rates than men, poor people higher rates than rich people and old people higher rates than young people, the changes in the prevalence associated with the hurricane were largely unrelated to socio-demographics. This was, for better or worse, an equal opportunity disaster that affected broad segments of the population, irrespective of their prior vulnerabilities.

We also found something very encouraging and intriguing, and that is despite the high rates of anxiety and depression and PTSD in the population, very small proportions of the people in this population reported having suicidal ideation, plans, or suicide attempts in the first months after the disaster. As a matter of fact, we found that these things were vanishingly small in the first few months, and what seemed to be happening was that in questioning more depth about this, despite the fact that many people were understandably anxious and worried about the future, they were sad and depressed about their losses, there was a sense of strength and optimism in the population that was quite remarkable. Many people, as a matter of fact, the majority of the population said they felt that they were stronger because they had lived through this and they survived. They had a sense of greater meaning and purpose in their life. They felt more religious. They felt more connected to their fellow citizens. So that strength was something that seemed to be buffering people from the worst excesses of this emotional crisis.

Now, this kind of positive effect has been found in the past. However, we know that this kind of psychological adrenaline goes away in about a year. Fortunately, in most disasters the crisis period also goes away in a year. Construction efforts are made and so forth. That has not been the case here. And as a result, when we looked at our follow-up survey, the first survey that was about a year later, close to 2 years after the hurricane, rather than the typical pattern one finds where prevalence goes down, we found either stabilization of the prevalence, no decrease at all in the New Orleans metro area, and an actual increase in the prevalence of serious emotional problems in the areas outside the New Orleans metro area—Alabama, Mississippi, the other parts of Louisiana—and suicidality, a dramatic increase across the board in the New Orleans metro area as well as in the rest of the hurricane area. About half the people who were affected emotionally in a really clinically significant way have been in some kind of treatment. Most of that treatment has been medications, not psychotherapy. Most of it has been delivered by primary care physicians. Most of the psychiatrists that have been involved in this effort—as you mentioned already, there is a smaller number—they have been focused on the people who had pre-existing mental disorders, that severe, persistent population. The nuanced cases that we have already talked about, the people who are doing well—and these are new cases—

they are mostly being seen by primary care doctors and being given pills without any psychotherapy.

This is a problem, and as many speakers have said already, in a situation of this sort when you have a lot more need and lower resources, we are in a tough situation. There is a need to expand services. But at the same time, I want to emphasize that it is also important to realize that no matter what the expansion of services, it is unlikely to be adequate for the need. And so in addition to just expanding services, we have to think creatively about how to make those services as cost-effective and stretch as far as they can. There are some interesting models that are out there: Commission Corps we just heard about from Kathryn Power, but also there is telepsychiatry, collaborative care models where psychiatrists part-time consult with primary care physicians to expand their services, patient program matching things. And these are things that it seems to me we have to encourage work to be done on in the future.

Thank you.

Senator LANDRIEU. Thank you, and I am going to be getting back to that final point in my line of questioning, because I think that is really key to helping to solve the crisis that we are in, and I thank you.

Dr. Osofsky.

TESTIMONY OF HOWARD J. OSOFSKY, M.D., PH.D.[1] CHAIRMAN, DEPARTMENT OF PSYCHIATRY, LOUISIANA STATE UNIVERSITY HEALTH SCIENCES CENTER

Dr. OSOFSKY. Senator Landrieu, Members of the Subcommittee, thank you very much for asking me to testify today. This testimony is not about pointing fingers; rather, it is about the real problems of real children and adolescents in the greater New Orleans area.

I want to focus on the dilemma that these children and adolescents face in having their mental health service needs met. The resources and funding provided do not adequately address the mental health treatment service needs of the tens of thousands of children traumatized by Hurricane Katrina and further traumatized by the continuing stresses due to the slow recovery.

The Stafford Disaster Relief Act Crisis Counseling Program, including the Specialized Crisis Counseling Program, while helpful, prohibits mental health diagnosis and treatment. Children and adolescents, while resilient and pleased to be back home, are in desperate need of proven outreach clinical evaluation and treatment services. Collaborative efforts of LSUHSC trauma trained mental health professionals and returning school districts have demonstrated the importance of integrating mental health services in school and preschool settings to provide support and needed therapeutic help in a destigmatized manner.

The devastation to children and families resulting from the displacement and significant losses of all that was familiar as a result of Hurricane Katrina provides a unique perspective on the effects of this disaster. Our data gathered since the storm demonstrates the widespread nature of this disaster which personally affected the majority of children assessed. In addition to the data we sub-

[1] The prepared statement of Dr. Osofsky appears in the Appendix on page 113.

mitted, during the second year after Hurricane Katrina, the 2006–2007 school year, well over half of the 7,000 children assessed in the most heavily devastated Orleans, Plaquemines, and St. Bernard parishes had still not returned to their pre-storm homes. Over 40 percent still met the cut-off for mental health referral indicating the chronic effect of this disaster on children and adolescents. We currently are receiving many and increasing numbers of referrals and requests for mental health evaluation and services from school personnel and parents. The students referred are having severe school difficulties—academic, behavioral, emotional, and risk-taking. The scientific consensus is that we cannot leave these cries for help unanswered. Without adequate mental health services, we can count on these children having increased incidences of post-traumatic stress disorder and depression and decreased ability to meet their potential. We strongly believe, and available evidence has proven, that these negative outcomes can be prevented if adequate mental health evaluation, diagnosis, and services can be provided.

Some lessons we have learned:

One, it is perfectly clear that we need a better national plan for children and families following disasters that can be funded at the Federal level and implemented and channeled at the local level.

Two, the Stafford Disaster Relief Act should be revised to allow for needed mental health evaluation and treatment services.

Three, mental health services after a major disaster need to be funded on a long term basis not only to address current problems, but to prevent serious mental health and behavioral sequelae.

Four, if volunteers are to be used effectively, they need to be trained in trauma-focused services for children before being deployed.

Five, mental health services have been and should be increasingly provided in child- and family-friendly settings such as schools and preschools.

In closing, we very much appreciate your efforts to help these children and families. We beseech you that if there are resources and discretionary funds available from FEMA and SAMHSA, these funds should be provided immediately for evidence-based mental health services for these struggling children, adolescents, and families who so desperately need them. It is clear that this funding is needed now to prevent irreparable damage to children traumatized by Hurricane Katrina. Your leadership has made and can make all the difference.

Thank you for your attention to this important matter, and I will be glad to provide either more data or clinical vignettes to demonstrate what we are discussing.

Senator LANDRIEU. Thank you very much. Dr. Townsend.

TESTIMONY OF MARK H. TOWNSEND, M.D., DFAPA,[1] PROFESSOR AND VICE CHAIRMAN FOR GENERAL PSYCHIATRY, DIRECTOR OF PSYCHIATRY, MEDICAL CENTER OF LOUISIANA AT NEW ORLEANS

Dr. TOWNSEND. Thank you, Senator Landrieu and Members of the Subcommittee, for letting me testify to you about our achieve-

[1] The prepared statement of Dr. Townsend appears in the Appendix on page 117.

ments and challenges. Since July of this year, I have been the Director of Psychiatry for the Medical Center of Louisiana at New Orleans, which is a part of the LSU Hospitals Health Care Services Division. Our medical center consists of the newly renovated LSU interim hospital as well as comprehensive and specialty clinics throughout the region. Our department is composed of faculty mainly from the psychiatry departments of LSU, chaired by Dr. Howard Osofsky, and also from Tulane University. We have been given the mandate to provide psychiatric treatment to a city that, as you know, has survived many other traumas, only to be in part irreparably flooded in August 2005.

One such flooded place was Charity Hospital, which is where I worked, which was second oldest continually operating public hospital in the United States, which is now closed. Charity Hospital at one time had 2,500 beds. At the time of the storm, psychiatry staffed 92 of them. Although with relatively fewer beds, Charity's emergency department experienced an enormous volume. We handled about 600 psychiatric emergencies a month. Most of those were treated successfully and returned to the community within 24 hours, and that was in our crisis intervention unit.

Of course, because of that I am keenly and personally aware of what we have lost at Charity, and I am happy to be able to work with the LSU Hospitals administration to preserve what I think were the best aspects of treatment at Charity while we all transition to a new and more flexible system of care. We have to be flexible because we have lost much of the bricks and mortar that housed the previous system. And we have to take new approaches because patients are best treated and stabilized in the community. They have to not present to emergency departments and have to not be admitted to hospitals. I also think we must identify at-risk youth, as has been already said, to prevent those with psychiatric illness from being identified and literally treated as criminals. If arrested, we must divert these people from prison and address their psychiatric medical illness.

Two years after Hurricane Katrina devastated the city, Charity Hospital and its 92 psychiatric beds remain closed. The medical center now directs medical and surgical treatment from its smaller, sister—University Hospital. Comprehensive psychiatric services have been planned for LSU's new teaching hospital, but that will be 5 years down the line. Today, the region lacks most of its pre-storm inpatient psych beds, even though its people have not only largely returned, but also have demonstrated persistently elevated rates of mental illness. And as you have shown there, New Orleans had more than 300 licensed beds prior to the storm.

However, progress is being made. In September of this year, the LSU interim hospital opened new psychiatric inpatient units uptown New Orleans at DePaul Hospital in a leased building. DePaul hospital had served the region for about 100 years by providing a full range of psychiatric services for adults and children. And LSU Hospitals hopes to open approximately 40 beds on that site, which is an extremely positive development but, still, the city has less than a third of its former inpatient beds.

I also want to say that LSU is also addressing other important needs. The LSU interim hospital has created an emergency room.

It is called an emergency room extension that is handling 200 psychiatric patients a month. We have also opened 20 medical detox beds, and I have to say the LSU psychiatry outpatient clinics, which were largely staffed by members of the LSU psychiatry faculty, opened very early, way back in October 2005. But recent grants, including the much needed primary care access and stabilization grant, have allowed LSU to expand its office space and also its culturally sensitive programs for patients of all ages.

Both LSU and Tulane medical schools have demonstrated tremendous resiliency to be able to be present in New Orleans today. And LSU Hospitals' medical centers are more than able to provide top-quality psychiatric education. But as we discussed already today, the region itself continues to lack key pieces of public health infrastructure. I am going to summarize what I think those would be.

These next steps are very complex. Charity's CIU, which Dr. Stephens referenced, was able to treat people so efficiently, 600 people a month, because it was well staffed and the community had sufficient inpatient, respite, step-down, and group home beds. More mental health professionals, not just psychiatrists, which we have spoken about today, but others—psychologists, social workers, rehabilitation counselors, recreation therapists—all need to be lured back into the area to resume clinical practice if we are to open these hospitals and these facilities. And community services must be increased so that crises can be defused, where they should be, within the neighborhoods and not within emergency rooms. And, finally, criminal justice diversion programs have to be developed for individuals with psychiatric illness whose behavioral symptoms have led to arrest. They must be diverted from our jails.

Senator Landrieu, I want to express my sincere thanks to you for allowing me to speak about our progress and our challenges, and I am grateful for the assistance that you have already provided, and I look forward to assisting you in the work yet to come.

Senator LANDRIEU. Thank you all very much for your testimony.

Let me begin, Dr. Kessler, with you, where you ended your opening remarks. Could you give three or four specific recommendations, which I think are included in your statement, about new strategies, kind of more effective approaches? Because you hit the nail on the head when you said that there is basically not enough money in the bank to cover the needs that have been expressed and described here.

Assuming, however, that we can identify some additional resources, it is going to take a combination of some additional resources and some change of strategy or innovations or new tools or methods or approaches.

Could you comment from your view, having conducted this fairly large study, on what some of those effective approaches might be?

Mr. KESSLER. Sure. Well, the study itself does not tell us anything about effective strategies, but we know from past experience that emergency psychiatric medicine has been an area where we have lagged in our development of effective strategies because emergency situations are emergencies, and we jump in and do the best we can. As you probably know, for many years debriefing was this method that was considered to be the first thing to do where

paraprofessionals would go and talk to people about their experiences and let them work them out and so forth. We now know on the basis of just recent controlled studies that not only does debriefing not work, it actually hurts people.

Now the development of psychological first aid just in the past few years has been shown to be a much more effective strategy. The problem is we do not have a lot of things in our bag of tricks that we know to be effective things that work specifically in crisis situations. And in this particular crisis, we do not have anything that we can pull out right now and say it works.

However, during a crisis of this sort is exactly the time where some limited amount of incremental resources should be devoted to trying new things, to think about the next crisis down the line. It is a hard thing to do when we are in the middle of this emergency, but as you mentioned at the onset, disasters are becoming increasingly common in America, $50 billion a year of infrastructure damaged, on average, each year for the past decade in the United States. The number of people in the aging population who are moving to coastal areas where they are subject to these things is increasing. This is not just a one-time thing. This is an opportunity to learn something about how we can do better during the next disaster and the next after that.

So I hope that in the midst of jumping in and trying to plug our hole in the dike at this particular time, we divert some resources to thinking creatively about things that we do not yet know whether they work but there is potential. I mentioned telepsychiatry, which is something that is a development in rural areas in America, but is something that has a potential here. We know that telephonic cognitive behavioral therapy has now been shown to work almost as well as face-to-face cognitive behavioral therapy, and there are a lot of people that could profit from that.

Senator LANDRIEU. Interpreting that to mean counseling over telephone?

Mr. KESSLER. Yes, counseling over the telephone. And there is good evidence now that this is quite effective, and one of the resources that we have in crisis situations is that there are many people around the country who are willing to help. They do not have any structure to do that. There are psychiatrists, social workers, clinical psychologists all around America who would be willing to donate 2 hours a week if we had a system that would allow them to do that. We know that on September 11, 2001 the problem was that there was an inundation of an army of people who wanted to help, but there was no mechanism to get the help to the people. If we could devote some resources to coordination of allowing the resources that are potentially available to get to people, there is one good one.

A second one that is of great value is something called collaborative care models where psychiatrists do not work with patients but work with primary care doctors, so each doctor—one psychiatrist is connected to 10 primary care doctors, so when the primary care doctor finds a patient that has an emotional problem that is well beyond the skill level of the primary care doctor, they have one psychiatrist who they talk to 3 days a week, and it extends those rare resources in ways that could be useful.

These are just two examples. I do not know if they are the best, but the idea is——

Senator LANDRIEU. No, I think they are excellent, and I would really urge you—and I know your time is very valuable and limited. But any other ideas like that that you could present in writing or in conversations with the staff to this Subcommittee would be appreciated.

Mr. KESSLER. Sure.

Senator LANDRIEU. Because we intend to make some of these strong recommendations for the future, and I particularly am interested in your noting that a larger and larger segment of the population is moving towards the coast, not in every case but I think the details would suggest that these are retired—in some instances, retired elderly, and hurricanes and other disasters have a disproportionate effect on older people, as I have just observed from our limited background in this. But I think this is a very important issue for our country, the aging of the population, the increased incidence of major disasters, particularly this hurricane-prone region of the Gulf Coast, Florida, and the East Coast.

The other point I wanted you to just—and I want to be clear that I heard this correctly. You said that your study so far has indicated that some of the initial counseling was not only not helpful but it was potentially harmful. Could you go over that one more time?

Mr. KESSLER. There is something called "psychological debriefing," which was popular for many years among paraprofessionals, and Dr. Osofsky can tell you more details about it. But it was essentially the idea of telling people about your trauma, reliving it, getting it out of your system, and sort of catharsis. And that was something that was a commonly done thing. It was sort of the norm in the field of disaster medicine. We move in and we have all these essentially lay people debrief trauma victims.

Senator LANDRIEU. And let people tell their story so they will feel better.

Mr. KESSLER. And there have now been some studies that have shown that it does not work. As a matter of fact, not only doesn't it work, but since they do it in groups, what it really does is it retraumatizes so everybody hears everybody else's story and they go away feeling worse.

Because we were in the midst of doing all these—running around and doing this stuff in crises, nobody took a step back and said let's systematically see whether that works or not. So taking a step back and sort of thinking carefully about what works and what does not has the potential to leverage our limited resources by getting us to invest more in the things that do work rather than the things that do not work. And right now we are in a knowledge deficit situation. We have a lot of good psychotherapies that we know that work in general, but what works particularly for particular people in these situations we do not know. So there is a lot that we need to discover about what is most cost-effective in these kinds of populations that could help us leverage those rare resources in ways that we cannot.

Senator LANDRIEU. And, finally, has anyone from any Federal agency approached you with a plan to do exactly as you have out-

lined, trying to invest some research dollars and trying to find out what works?

Mr. KESSLER. No, they have not, but there are these interesting things, and Project Liberty, for example, where, as you probably know, there was a hotline set up to refer people who called for help to professionals who volunteered to provide free help, over 400,000 people were referred to psychotherapy in New York. Not a single piece of information was collected on whether any of those people went, whether the psychotherapy worked, what kind of psychotherapy they got. But there is an opportunity to set up systems of this sort that with just a little bit extra data collection we could see what things worked and what did not, what worked for what kinds of people. Instead of referring somebody just to the psychotherapist who is closest to you, maybe we will discover that women profit more from interpersonal and men from cognitive behavioral therapy, and there should be more matching of people to places.

A one-percent increment in the investment of resources and thinking that through could have a dramatic multiplier effect in the effectiveness of what we can do.

Senator LANDRIEU. And the cost savings.

Dr. Osofsky, do you currently know of any program that is reaching specifically out to teachers or to educators as they come back to the community to stand up their schools, any particular programs that are helping them to then be able to help the children or the parents that they come into contact with? Because that would seem to me to be one effective strategy. Is there anything that you are aware of currently that is being funded in either Louisiana, Mississippi, or the Gulf Coast area?

Dr. OSOFSKY. If I could just take one moment to comment on the points Dr. Kessler was making.

Senator LANDRIEU. Go ahead.

Dr. OSOFSKY. We have been working with Dr. Speier on the idea of training even within the Crisis Counseling Program, within the Specialized Services Program, to train the counselors in what we call learning collaboratives about mental health approaches that can be of help, so that not only within the limits of the program, the effectiveness they can do, but also they then can go back into their communities and have other positions, the additional skill sets that they will have. And we are also working with the States on the telemedicine program, especially in the child and adolescent area, but in psychiatry to help expand services to other parts of the State. But I think these are crucial.

I do want to let you know that we have actually been screening—at the schools' request—teachers and to try and provide additional services for them, because we are dealing with individuals who themselves are very traumatized, who need to deal with the traumatized children and adolescents, and then at the end of the day also have to deal with their own issues that they are going through. And this comes up over and over again.

What I think would also be effective—and we actually find there is great acceptance of it, and we do training for teachers about red flags and how to look for things and how to respond in classrooms, but also to extend this further, I find the pediatricians, primary

care doctors, nurse practitioners would be very responsive to this type of approach in a way where—for example, we have seen so many youngsters come in who are on large amounts of medication that are inappropriate, or some who need medication or they need other types of treatment. But we see this with adults, too, and the issue of trying to look at the impact of trauma itself and how to differentiate and how to respond, how to recognize when there will be problems and how to best intervene. And I really do think this could be a very positive thing that could come out of all of the collective experience and not only help in our State but help in the country as well.

Senator LANDRIEU. OK. Our time is limited, so I just have one more question for you, Dr. Townsend. Given the statistics of the lack of professionals that are back serving—and I realize the problem is broader of the solutions than just recruiting, but it has been mentioned by several members of this panel today. What is LSU either doing or recommending, or Tulane, for that matter, what could the State be doing, or the Federal Government, to help you recruit the professionals you need to help re-staff, if you will, the mental health network?

Dr. TOWNSEND. I think there are two parts to that. Looking ahead, unfortunately, all of us seem to be talking about the next disaster where we can collect data, which, of course, there will be one. If there was a way beforehand to stabilize the workforce, just basic profession-specific counseling, psychiatrist to psychiatrist, psychologist to psychologist, to buy books for people to replace their offices, would have, I think, kept some people from leaving the area. But now there is discipline-specific money that needs to be available. I understand there was nursing money that has now run out. There was money to attract physicians. In my opinion, that is not nearly enough. And the group of people that seems to be preventing us from opening that next wave of hospital beds is not nurses; it is licensed clinical social workers.

So we have to come up with a way of having meaningful—and I guess even though it seems like a lot of money, for some reason it is not meaningful enough to attract people to south Louisiana—meaningful amounts of money targeted in ways that get people to come down. I am very appreciative and I like the idea of this mobilization corps, but those people will have places where they definitely can be used and definitely where it is not appropriate because of the lack of continuity of care. And, of course, we need people who are going to invest in living in south Louisiana or south Mississippi and other places for several years to come.

Senator LANDRIEU. Do we know what the current recruitment either bonus is—what is it for nurses or medical professionals? Do we know?

We will get the information, but I think the Federal Government has initiated a small program for recruiting for health care professionals, and I will look into it and get it put into the record. I do not know if any——

Dr. OSOFSKY. We do have that. The one piece is—we have actually been very fortunate in retaining professionals and recruiting. It is not just having the bonuses to perhaps have people come, but the funding so that we can guarantee their salaries because I do

find people who are very willing to come here and want to participate and hopefully to live and stay here.

Senator LANDRIEU. This would be a good point to end the panel. Part of it is not only just recruiting the professionals to either stay or come back, incentives to stay or come back, but it is also then leveraging, as Dr. Kessler said, the nonprofit sector, the volunteer sector, to enhance the capacity to deliver services at a fraction of a cost, as opposed to just thinking about one-to-one counseling, doctors, social workers, etc.

So these are some very excellent ideas. I thank you all very much for being a part of the panel today. We have gone over time, but it has been, I think, a very interesting and worthwhile discussion, so we look forward to visiting with you all and keeping up as we develop better strategies to deal with the ongoing crisis in the Gulf Coast and prepare better in the future.

Thank you, and the hearing will come to an end.

[Whereupon, at 4:56 p.m., the Subcommittee was adjourned.]

APPENDIX

Testimony
Before the Ad Hoc Subcommittee on Disaster Recovery, Committee on Homeland Security and Governmental Affairs
United States Senate

Post-Catastrophe Crisis: Addressing the Need and Availability of Mental Health Care in the Gulf Coast

Statement of
A. Kathryn Power, M.Ed.
Director
Center for Mental Health Services
Substance Abuse and Mental Health Services Administration
U.S. Department of Health and Human Services

For Release on Delivery
Expected at 10:00 a.m.
Wednesday, October 31, 2007

Madam Chairwoman and Members of the Subcommittee, I am A. Kathryn Power, Director of the Center for Mental Health Services at the Substance Abuse and Mental Health Services Administration, an agency of the U.S. Department of Health and Human Services (HHS). Thank you for the opportunity to be here today to explore SAMHSA's ongoing efforts to address the behavioral health concerns among the broad population of all ages whose lives, hearts and minds have been affected by Hurricane Katrina.

SAMHSA collaborates with other Federal efforts, States, and the private sector to prevent and treat mental and substance use disorders. We do so by directing our programs, policies, and resources toward supporting state and local efforts to build resilience and facilitate recovery. The Center for Mental Health Services is the focal point for SAMHSA's efforts to promote mental health, prevent the development or worsening of mental illness, and support the mental health services delivery system.

The work is challenging, sometimes even daunting. Unlike an obvious broken bone, burn, laceration, or other physical wound, mental illnesses often do not have outward physical signs. Adding another layer to the complexity of seeking timely and appropriate treatment is the barrier of not knowing when or where to seek help and the lack of awareness that mental and substance use disorders often co-occur. Beyond these barriers, the issues of stigma, access, and availability of services also present roadblocks to early intervention, treatment, and recovery.

Yet SAMHSA – knowing the barriers, accepting the challenges, and fully understanding the importance of our role in advancing pubic health – continues to move forward working to improve and save lives that otherwise might be lost to devastating symptoms, isolation and even suicide. SAMHSA moves forward with the understanding that recovery is the expected outcome. Research tells us that with appropriate help, individuals with mental illnesses, substance use disorders, and co-occurring disorders can and do recover. These conditions are chronic illnesses; relapses are possible; and the recovery process can be protracted.

Today, recovery is no longer the exception; it is the expectation. To advance the recovery paradigm the public health approach is required, working with people in the context of their environments. The public health model uses systems that provide a continuum of services that focus on an entire population rather than on individuals with individual illnesses. The continuum begins with an assessment of need and ends with a population-based, evaluated approach that extends into practice, research, policy, and the engagement of the public itself.

Effective disaster preparedness and response are an essential part of SAMHSA's public health approach to building resilience and facilitating recovery. That is why we were on the ground in Louisiana and elsewhere in the Gulf region within days of Hurricane Katrina. That is why we are still responding to the behavioral health outcomes for those still struggling to heal more than two years after the waters receded. And, when I speak of

Hurricane Katrina, I'm also speaking of Hurricanes Rita and Wilma that followed quickly after Katrina, further ravaging the Gulf Coast mercilessly.

While I cannot comment about either the successes or breakdowns that may have occurred in other areas of disaster response and recovery in the wake of Katrina, I can tell you about the work undertaken by SAMHSA, the programs we supported, and the range and scope of what we did and can do in disaster mental health.

SAMHSA AND DISASTER PREPAREDNESS/RESPONSE

SAMHSA is not a newcomer to disaster mental health work. We have a long and successful track record and history. And our knowledge about the emotional toll of disaster is grounded in both research and experience that are both broad and deep.

Individual Reaction to Trauma

What we know about trauma and disaster tell us that typical individual and family reactions to a disaster, whether natural or manmade, include physical, emotional, cognitive, and behavioral responses. People may experience anxiety, loss of sleep or appetite, stress, grief, irritability, hopelessness, and family conflict. Whether the reactions are adaptive or become distressing, people affected by a disaster may experience more than one type of reaction, and these reactions may change over time. For example, one may experience hyper-vigilance immediately following a disaster and, then, over time, lapse into a state of chronic fatigue.

However, it is critical to understand that not all individuals who are exposed to trauma—even repeated trauma—may develop a social, emotional, or behavioral disorder. In mental health disaster response, we cannot and do not assume that every child, adolescent, and adult who experiences a trauma will develop symptoms. To do so would result in inappropriate labeling, undermining, and focusing on the negative aspects of a traumatic event. We know from past experience that a disaster may result in a range of expected reactions, depending on an individual's previous exposure to trauma. In disaster mental health response, our job is to help individuals understand the depth of their emotional reactions to foster effective coping strategies and to understand when additional mental health and substance abuse treatment may be needed.

The research on risk factors for behavioral disorders following a disaster provided us with insights regarding who would be most at risk in the aftermath of Hurricane Katrina. By far, severity of exposure is the single most important factor. This summary concept of "severe exposure" encompasses numerous stressors, including bereavement, injuries, terror and threat to life, witnessing horrible things, and, of course, property damage and financial loss. All of these stressors were experienced widely by survivors of Hurricane Katrina. Displacement, social disruption, and community destruction are powerful stressors with implications for the long-term psychological well-being of Katrina survivors. Personal, social, and socioeconomic factors interact with exposure.

At the same level of exposure, research has told us that people with pre-existing psychiatric problems, lower social support, or lower income generally will fare more poorly than their counterparts. Research has shown that at the same level of trauma, individuals with pre-existing mental illnesses – both those receiving treatment and those whose behavioral illnesses remain untreated – are at increased risk in the wake of a disaster. Their resilience is not as great as healthy individuals; those receiving care may deteriorate if treatment, whether behavioral or somatic, is interrupted. Table 1 at the back of this testimony provides a partial listing of research studies conducted following other disasters that examine the relationship between exposure and extent of mental distress or illness.

Clearly, our work in disaster mental health works to strike a balance between over-pathologizing traumatic experiences and ensuring that individuals who need treatment get it as early as possible, is a fine line to walk, but an important one to be aware of. Most children have supportive environments and good mental health. In addition, many children get through traumatic experiences with their mental health intact because they have so many other strengths.

Understanding the Magnitude of Disaster-related Mental Health Problems
While individual reactions to disasters vary widely, nonetheless, past research on the mental health consequences of major floods and hurricanes told us that the psychological impacts of Hurricane Katrina could be both pervasive and severe.

Estimating the extent of the problem was challenging; historically, data on mental health are not collected routinely and systematically after major disasters. Further, past studies do not have comparable findings as a result of the severity of the disaster, the way samples were drawn, how long after the disaster the studies were conducted, and whether the investigators assessed psychological disorders or emotional distress.

With those caveats, I can tell you that studies of general populations or school populations that include a mixture of severely exposed individuals and more modestly or even minimally exposed individuals have often found rates of serious disaster-related psychological problems to be in the range of 5-10 percent, with an additional 5-10 percent showing less serious emotional problems. In contrast, studies of localized populations with a higher proportion of severely exposed individuals frequently have yielded much higher rates of behavioral problems. Several studies conducted in the aftermath of Hurricane Andrew, for example, found rates of posttraumatic stress disorder (PTSD) in the range of 25-56 percent.

These and other data suggested to us that it would be useful in the wake of Katrina for our disaster mental health work to distinguish between the most severely exposed counties or parishes and other disaster-declared counties or parishes. We thought then that in the most severely exposed counties or parishes, 25-30 percent of the population might experience clinically significant mental health needs and an additional 10-20 percent might show sub-

clinical but not trivial mental health needs. That translates to an estimate of upward of approximately 160,000 individuals with significant emotional problems and over 105,000 with sub-clinical problems in Orleans and St. Bernard parishes alone. In other disaster-stricken counties or parishes, we anticipated that approximately 5-10 percent of the population might experience clinically significant mental health needs, with an additional 5-10 percent of the population showing sub-clinical but not trivial mental health needs. When extrapolated to population estimates, these prevalence rates pointed to tremendous need, a need to which we began to respond even before the rains subsided.

Early on, SAMHSA estimated that up to 500,000 women, men and children might be in need of crisis assistance and would be vulnerable to depression and other forms of psychological distress. Others experienced problems with their physical health and/or behavioral problems such as substance use in adults or conduct problems among youth. Early estimates from clinicians on the ground suggested that survivors were experiencing significant symptoms of traumatic stress. Calls to local suicide hotlines were up 60 percent and continued at a higher than average level for more than a year.

This accumulation of knowledge of both the factors affecting emotional status following disaster and expected rates of behavioral distress and the need for assistance helped guide our work in the days, weeks, months and years following Katrina along two parallel courses:

(1) Lowering psychological distress and building resilience for those otherwise healthy individuals for whom the disaster might have increased their risk for behavioral health problems; and
(2) Ensuring continuity of care for those with mental and substance use disorders.

That work – and much of the funding – continues today. I now would like to describe those funding and service paths for disaster mental health services and support that SAMHSA began providing in the hours following Katrina that continue to this day.

REBUILDING MENTAL HEALTH IN THE WAKE OF KATRINA

When Katrina struck, SAMHSA focused its resources to help the affected communities along the Gulf Coast deliver an effective behavioral health response. SAMHSA was on the ground in the Gulf Coast from the very beginning providing funds to purchase medication, mental health support for first responders, grants for crisis counseling, personnel and direct clinical services from SAMHSA staff. As Dr. Cline recently told New Orleans leaders: "Our dedication to the recovery effort remains steadfast as we are committed to restoring hope and health in the Gulf Coast region."

Of course, dollars were a top priority to ensure that people got the services they needed. Table 2 provides a detailed description of the funding Louisiana has received to support mental health and substance abuse prevention and treatment services since Katrina struck.

To summarize, since Katrina struck:

- The US Department of Health and Human Services alone has provided more than $1.3 billion in Federal resources to support Louisiana's health care costs, including funds to serve its poor and uninsured residents, provide mental health services, support primary care clinics and private hospitals, and help New Orleans recruit and retain more doctors, nurses, and mental health professionals.

- Total Federal funds of at least $338 million were targeted to address critical post-Katrina mental health and substance abuse issues in Louisiana. These resources helped support a range of services, from crisis counseling and inpatient clinical services to school-based screenings and youth suicide prevention.

SAMHSA alone has provided more than $170 million in mental health and substance abuse funding to Louisiana, including $64 million in 2007 in both formula and discretionary grants.

However, SAMHSA's work has been far more about serving people in the spirit of the public health than it has been about dollars and cents. Simply put, SAMHSA mounted a response to the Katrina disaster that was as comprehensive as it was complex. Our response encompassed the principles of collaborating with State and local officials as well as disaster relief organizations—both public and private. Our strategies promoted wellness and resilience, prevention of substance abuse and other harmful coping strategies, and help-seeking behavior. SAMHSA's response efforts brought to the fore the importance of proactive and comprehensive mental health and substance abuse response as a vital and life-saving activity that significantly aids all aspects of disaster recovery.

Let me describe just a few of the key elements we brought to bear in Louisiana and elsewhere in the Katrina-affected areas.

- ***Crisis Counseling Training and Assistance Program (CCP):*** When it comes to disaster mental health services, our support comes primarily through an Interagency Agreement with Federal Emergency Management Agency (FEMA) which fund the SAMHSA-implemented and monitored Crisis Counseling Training and Assistance Program (CCP), a program authorized under Section 416 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1974.

  For over thirty years, the CCP has supported *short-range* solutions-focused interventions with individuals and groups experiencing psychological and behavioral sequelae to large scale disasters. These interventions help disaster survivors understand their situation and reactions, mitigate against additional stress, help survivors review their options, promote mental health using specific evidence-based coping strategies, provide emotional support, and encourage links with other individuals and agencies able to help survivors recover to their pre-disaster level of functioning. The Crisis Counseling Program uses an outreach model that includes, individual crisis

counseling, group crisis counseling, public education, community networking and assessment and referral to reach those affected in a federally declared disaster area. The program includes both short-term (60 day) and long-term (9 month) grant funding.

- ***SAMHSA Emergency Response Center (SERC):*** We established the SAMHSA Emergency Response Center, or SERC, through which we coordinated the overall Federal response for mental health and substance abuse issues around Katrina. It was uniquely established to address the immediate need that arose from Katrina. The SERC operated 12 hours a day, seven days a week at the height of the disaster and, in the days, weeks, and months immediately following Katrina.

  While it was in operation, the SERC became a one-stop source for the public. We responded to over 5,000 e-mails and so many phone calls that we lost count. We developed and disseminated hundreds of thousands of copies of publications, assessment tools, training guidelines, and other publications on disaster behavioral health needs to states, shelters, and others.

- ***Katrina Assistance Project (KAP):*** SAMHSA coordinate the mobilization of Federal and civilian staff to meet local requests for mental health and substance abuse services, as well as program and administrative staff in the impacted States. The Katrina Assistance Project (KAP), a collaborative project between SAMHSA and a number of national professional mental health and substance abuse provider organizations, was developed to respond as quickly and efficiently as possible. Between September 2005 and June 2006, SAMHSA's KAP filled over 1,000 approximate two-week deployment assignments. Team members included mental health and substance abuse services professionals serving in a variety of clinical and behavioral counseling roles to meet the unique requirements of each site. Collectively, the deployment assignments included: professional counselors; substance abuse counselors; social workers; psychologists; psychiatrists; physicians; nurses; and pastoral counselors.

  SAMHSA's teams reported conducting nearly 117,,000 counseling sessions helping thousands of vulnerable men and women reconnect or connect for the first time with the essential services and medicine they needed to get through this situation and to reconstruct their lives.

- ***National Suicide Prevention Lifeline:*** We mobilized the SAMHSA-sponsored National Suicide Prevention Lifeline, to assist evacuees around the country who were in crisis. This resource was sorely needed—two months after the storms hit, we recorded a 60% increase over average pre-Katrina call volume to approximately 1,400 calls per week.

- ***Public Service Announcements:*** Together with the Ad Council, SAMHSA launched an outreach campaign of television and radio public service announcements— in English and Spanish— to encourage survivors who might have been experiencing psychological distress following the hurricanes to consider seeking mental health services. The PSAs

were targeted to reach adult survivors and first responders directly as well as parents and caregivers who can assess their children's emotional well-being. Viewers and listeners were encouraged to take time to check in on how they and their families were doing, and call a confidential toll-free number (1-800-789-2647 for adults/parents and 1-800-273-TALK for first responders) to speak to a trained professional who could assist with information and referrals to local services. A second wave of PSA materials were released around the one-year anniversary of Katrina in both the Gulf region as well as States to which evacuees were relocated.

- ***National Summit:*** SAMHSA convened a national summit, *The Spirit of Recovery: All-Hazards Behavioral Health Preparedness and Response—Building on the Lessons of Hurricanes Katrina, Rita, and Wilma,* on May 22–24, 2006. Teams appointed by the respective governors of 46 States, 7 Territories, and the District of Columbia came together in New Orleans to assess the progress made on disaster health plans and to help address existing problems and continued needs, particularly around regional collaboration. Through plenary sessions, topical breakouts, and regional workgroups, participants reviewed lessons learned from the last hurricane season and identified opportunities to work more closely together to resolve unmet behavioral health needs. While looking back at past efforts, tasks completed, and remaining work to be done as a result of the 2005 hurricanes was a critical component of the summit, looking ahead and preparing for future disasters through coordinated all-hazards preparedness was also key.

OUTCOMES OF OUR WORK

While much physical and emotional rebuilding remains to be accomplished, the work that SAMHSA undertook in collaboration with Federal, State and local officials in Louisiana and elsewhere in the affected Gulf Coast regions stand as testimony to what can be done, and be done well, to help rebuild the emotional health and wellbeing of a proud population from a self-sufficient and proud state.

Our expectations regarding the nature and magnitude of the mental health issues confronting Katrina survivors were borne out both on the ground through our own experience and in a study recently completed by Ronald Kessler of Harvard University and his colleagues. Assessment of pre-and post-Katrina data found that the estimated prevalence of serious mental illness roles from 6.1 percent before Katrina to 11.3 percent thereafter; moderate to mild mental illness rose from 9.7 percent to 19.9 percent. Interestingly, the prevalence of suicidal ideation and plans for suicide dropped from 8.4 to 0.7 percent and from 3.6 to 0.4 percent, respectively. While we cannot specifically say that access to the suicide prevention lifeline was a contributing factor to the drop in suicidality we can be confident in knowing it was a resource we made available.

Our successes and failures in reaching out to people through the Crisis Counseling Program, whether to assure them that their feelings were normal and healthy or to urge them toward further evaluation and treatment, were the subject of an extensive cross-site evaluation. The evaluation examined the *reach, quality and pathways to excellence* across the crisis counseling programs multiple sites in disaster declared areas and in areas in which evacuees were relocated that were not declared disaster sites.

The effectiveness of the crisis counseling program was held to be "hugely successful". Participants and counselors were overwhelmingly positive about the quality of services they received or provided.

- Its reach was found to be
  - Large -- 1.3 million encounters;
  - Deep – good penetration in the stricken areas
  - Wide -- spanning the country from New Jersey to Utah
  - Timely
  - It provided competent and respectful services to large numbers of ethnic minorities and older adults in proportions sometimes even greater than their numbers in the overall population.
  - While the program did not reach youth in proportion to their representation in the population, local programs did make special effort to reach youth through classrooms. [It is unclear whether the underrepresentation was related to relocation of many youth outside the Katrina-affected region or the closure of schools and other locales at which youth congregate.]
  - Many people with severe exposure to the disasters were reached, though not all of those in need of more intensive services were referred to them.
- In terms of quality, the program performed best in terms of the respectful manner in which counselors interacted with participants. Participants were helped to feel more confident in their own abilities to help themselves and their families, and they were helped to know that their own feelings were ok. Participants also were positive about the help they had been given to stay healthy and active and the information they received on reactions to disaster. Counselors themselves were generally well-protected against stress by their programs.
- A "path analysis" helped assess the factors that predict participant outcomes at the county level. Four service delivery characteristics of counties were found to be strongly related to better participant outcomes. These specific factors will help guide future CCP work and included:
  - Offering more intensive services (longer sessions or more visits)
  - Seeing participants in their own homes
  - Making more referrals for psychological services
  - Having fewer providers experiencing stress themselves.

A number of recommendations were made that can further boost the effectiveness of both the national program as well as the local programs that provide the direct services. These recommendations are now being integrated into the ongoing feedback that has helped the CCP grow and succeed over its 30-year history. They are found at the back of this testimony at Table 3.

Thus, SAMHSA's disaster mental health programming continues to be informed and to be improved through the knowledge gained by research and by experience.

A NOTE ON WHAT MAY LIMIT MENTAL HEALTH SERVICE DELIVERY IN RESPONSE to TRAUMA

Before closing, I would like to point out that while we would like to say that our work is complete and that life in Louisiana today approximates what it was in the days before Katrina and her sister hurricanes, we cannot. However, it is not for want of effort by SAMHSA, by the HHS and by the Administration, however:

1. SAMHSA does not instruct State governments on how best to deploy its disaster mental health funding. Indeed, while SAMHSA administers these grants, States themselves know best what their immediate needs are and how best to deploy the resources we provide to meet those needs. We know that a top-down approach to identify priorities for rebuilding and recovery is not the way to go.

2. SAMHSA urges Louisiana to use the funding that has been provided for disaster mental health work to meet the mental health and other behavioral health needs of its people. For example:

   - Today, some $12.8 million in Crisis Counseling Program funding has been obligated but unexpended in Louisiana; another $20 million in approved funds remains unobligated and available for draw down.

   - Some $1.3 million in FY 2005 mental health block grant funding (around 22 percent) was never expended.

   - As of October 26, 2007, Louisiana has drawn down approximately 75 percent of the $221 million they received in supplemental Social Services Block Grant funds in 2005. The Louisiana state plan for supplemental SSBG funds allocates $80 million of the total $221 million to the State Department of Health and Hospitals for mental health and substance abuse services. Louisiana has until September 30, 2009, to expend all supplemental SSBG funds.

3. Similarly, we cannot command other states and communities to continue working with Katrina victims who have been displaced around the Nation.

SAMHSA believes that the work of rebuilding lives and communities, the work of building resilience and facilitating recovery begins in families, neighborhoods and communities themselves. A bureaucratic, top-down approach isn't in the best interests of the people we work to serve. What SAMHSA can do best is provide state of the science and state of the art tools and resources to our colleagues on the ground, and that is precisely what we have done over the months since Katrina.

Conclusion

Thank you for the opportunity to appear today. I will be pleased to answer any questions you may have.

TABLE 1

Postdisaster Functioning by Exposure and/or Severity of Exposure

Article	Outcomes Assessed and Observed
Bravo et al., 1990	2 years after floods/mudslides in Puerto Rico, 912 survivors (375 previously interviewed with DIS (ECA version). In retrospective sample, severity of exposure predicted presence of depressive, somatic, alcohol use, and PTSD symptoms, even with predisaster symptoms controlled, but effects small. Few effects in smaller prospective sample (but note also fewer symptoms in severe group).
Caldera et al., 2001	6 months after Hurricane Mitch, 496 adults at primary care center assessed with Harvard Trauma Questionnaire. Based on cutpoint of 50, rates of PTSD were 4.5% among the less exposed, 9% among those were highly exposed. 23 of 29 cases re-interviewed at 1 year; 12 met criteria for current PTSD. In regression, injury and house destroyed predicted symptom level.
David et al., 1996	6 - 12 months after Hurricane Andrew, 61 adult volunteers interviewed with Structured Clinical Interview for DSM-III-R. 51% met criteria for new onset disorder including 36% PTSD, 30% major depression, 11% generalized anxiety disorder, 10% panic.
Freedy et al., 1992	8-12 weeks after Hurricane Hugo, 418 MUSC employees assessed using measure of resource loss and SCL-90. Resource loss highly correlated with GSI for SCL-90. Clinically significant distress displayed by 34% of men and 44% of women with high losses (5% and 11% of men and women with few losses). High loss = upper quartile on measure.
Garrison et al., 1993	1 year after Hurricane Hugo 1,264 ninth and tenth graders ranging in age from 11 to 17 assessed with 16 item PTSD symptom scale (investigator derived to match DSM). Overall 5%. In ascending order of prevalence, rates of PTSD were 1.5% for black males, 3.8% for white males, 4.7% for black females, and 6.2% for white females. Odds for PTSD increased as severity of exposure increased.
Garrison et al., 1995	6 months after Hurricane Andrew, 400 adolescents and their parents surveyed by phone using modified short version of the DIS as measure of PTSD. PTSD criteria met for post Andrew by 7%. Odds increased with fear for safety during storm.
Gleser et al., 1981	2 years after Buffalo Creek dam collapse, 380 adults and 273 children assessed with PEF, early version of SCL-90, and measure of sleep disruption. Much attention to quantifying exposure. 66-70% of adults and 30% of children evaluated as moderately or severely impaired on PEF. Anxiety approximately 60% and 20%, depression approx. 70% and 25%. 92% sleep disturbance.
Goenjian et al., 2001	6 months after Hurricane Mitch in Nicaragua, 158 adolescents from 3 differentially exposed cities assessed with CPTSD-RI and Depression Self-Rating Scale. Rates of PTSD and depression were 90% and 81% in Posoltega (most affected), 55% and 51% in Chinandega (intermediate), and 14% and 29% in Leon (least affected). City accounted for 47% of the variance in PTSD scores.

Ironson et al., 1997	1 and 4 months after Hurricane Andrew, 180 adults assessed using measures of resource loss, IES, PTSD questions following DSM-III-R criteria, and multiple measures of immune functioning. 33% met PTSD criteria, 44% in high range on IES. Damage, life threat, injury, and especially perceived loss correlated highly with PTSD symptoms. Sample differed from laboratory controls in NKCC, CD56, CD4, and CD8 (but not WBC) in the direction of lower immunity.
LaGreca et al., 1996	3, 7, and 10 months after Hurricane Andrew, 442 children assessed with CPTSD-RI. At 3 months, 27% moderate PTSD, 29% severe or very severe; at 7 months, 23% moderate, 18% severe or very severe; at 10 months, 21% moderate, 13% severe or very severe. Means were 30, 24, and 21. Severity of exposure strong predictor of scores.
Lonigan et al., 1993	3 months after Hurricane Hugo, 5687 children surveyed using CPTSD-RI. Symptoms increased as severity of exposure, home damage, and length of displacement increased. PTSD positive in 16% of children whose homes were destroyed v. 4 % in those who experienced little or no damage.
Norris, 1992	1 year after Hurricane Hugo, 1000 adults from 2 stricken and 2 control cities assessed with Traumatic Stress Screener. Among those exposed to Hugo, 83% met Criterion B, 42% met D, only 6% met C, so only 5% met all symptom criteria. Criterion C drove diagnosis (also true for other traumatic events assessed).
Norris et al., 1999	6 and 30 months after Hurricane Andrew, 241 victims assessed using RCMS for PTSD and CES-D. PTSD 26% Wave 1, 29% Wave 2. Depression (score > 16) 39% Wave 1, 26% Wave 2. On continuous measures, intrusion and arousal declined over time but depression and avoidance did not. Symptoms increased with life threat, injury, property damage, and postdisaster ecological stress.
Sattler et al., 1995	4 weeks after Hurricane Andrew, 89 victims living in shelters completed questionnaire including 47-item Multiscore Depression Inventory and additional questions about PTSD symptoms (no scale given). 19% mildly depressed, 27% moderately depressed. Sizable percentages reported PTSD symptoms such as frequent thoughts about hurricane, loss of interest in activities, difficulty sleeping, arguing with family, irritability.
Shannon et al. ,1994.	Three months after Hurricane Hugo, 5000 youth aged 9-19 assessed using CPTSD-RI. 5% full PTSD
Shaw et al., 1995	8 and 32 weeks after Hurricane Andrew, 144 children from High Impact and Low Impact schools assessed with CPTSD-RI, Achenbach's Teacher's Report Form (TRF), and 21 measures of disruptive behavior from Dade County Schools. At 8 weeks, 56% of children in high impact school severe on RI, compared to 39% from low impact school. At 32 weeks, 55% and 38%. However, more TRF psychopathology in low impact schools. Decrease in disruptive behavior in the region of the high impact school, later followed by return to normal levels. But increase in the region of low impact school, followed by return to normal.
Smith, E. et al., 1986	11 months post St Louis flood or dioxin exposure, 547 persons interviewed retrospectively with DIS. Sample composed of 189 unexposed, 139 indirectly exposed, and 173 directly exposed to disaster. Exposed broken down into flood (75), dioxin (29), or flood and dioxin (69). Psychopathology minimal but victims showed

	elevations in symptoms of depression. somatization, anxiety, and PTSD compared to controls. No difference in drug abuse, panic disorder. Primarily exacerbated pre-existing symptoms. New symptoms more prevalent for depression and PTS only. Rates of new PTSD 3.6% among exposed (1.4% flood, 6.9% dioxin, 4.5% flood and dioxin).
Steinglass & Gerrity, 1990	4 and 16 months after tornado/ flood, 39 tornado victims (Albion, PA) and 76 flood victims (Parsons, WV) assessed using DIS and IES . At 4 months, 49% and 76% high stress symptoms on IES. At 16 months, 24% and 41%. In Parsons, PTSD rates 15% at 4 months, 5% in past 4 months at 16 months. In Albion, 21% anytime in 16 months after.

TABLE 2
FEDERAL SUPPORT FOR MENTAL HEALTH/SUBSTANCE ABUSE SERVICES IN LOUISIANA, FY 2005-2007

TOTAL FEDERAL MH/SA FUNDS MADE AVAILABLE TO LOUISIANA

AGENCY	AMOUNT
SAMHSA	$174 million
ACF	$ 80 million
FEMA	$ 84 million
TOTAL	**$338 MILLION**

SAMHSA MENTAL HEALTH AND SUBSTANCE ABUSE FUNDING TO LA

	2005	2006	2007
Discretionary	20 awards totaling $17,229,225	20 awards totaling $27,139,369	16 awards totaling $31,074,491
Formula Grants	4 awards totaling $33,097,366	4 awards totaling $32,717,192	4 awards totaling $33,129,399
Total	**24 awards totaling $50,326,591**	**24 awards totaling $59,856,561**	**20 awards totaling $64,203,890**

ACF SOCIAL SERVICES BLOCK GRANT FUNDING TO LOUISIANA

	FY 06 SSBG	Supplemental	Drawdown as of 10/26/07	Balance
Louisiana	$26 million	$221 million	$166 million	$55 million

- Louisiana's state plan for supplemental SSBG spending allocates $80 million to the Department of Health and Hospitals for mental health and substance abuse services. The state plan divides those funds as follows:

Immediate Intervention: Crisis Response System	$37 Million
Behavioral Health Services for Children and Adolescents	$18 Million
Behavioral Health Program Restoration and Resumption	$10 Million
Substance Abuse Treatment and Prevention	$ 8 Million
Preventing Inappropriate Institutional Care (Dev Dis)	$ 7 Million

FEMA: LOUISIANA CRISIS COUNSELING PROGRAM (CCP)

CCP FUNDING

- In 2006, the Louisiana Crisis Counseling Program was approved for $72 million including $20,048,610 for the Intermediate Service Program and 51 million for the Regular Services Program (RSP), managed by SAMHSA. As of September 2007, $31 million of the RSP funds have been federally obligated; however, the State has drawn down $19 million of these funds. So there are $12.8 million in obligated but unexpended funds and $20 million in approved funds remaining.

- Louisiana Crisis Counseling Program and Specialized Crisis Counseling Services (CCP and SCCS) school-based initiatives provide an array of interventions in schools throughout the State. These services are being delivered to 138 schools in the metropolitan New Orleans area. Services address issues directly affecting children through cognitive behavioral and stress reduction activities. These services also address the educational and stress reduction needs of parents and teachers in those schools. LSU-HSC provides supervision and consultation for LA-CCP/SCCS school-based services.

MISSION ASSIGNMENTS

- Mental Health and Substance Abuse clinicians were deployed by SAMHSA to Louisiana to provide supplemental, clinical services from September 2005 to June 30, 2006. These deployments were funded by FEMA through mission assignments to SAMHSA totaling $12 million. During this period, these clinicians provided nearly 90,000 counseling sessions.

TABLE 3
RECOMMENDATIONS FOR FURTHER DEVELOPMENT
Crisis Counseling Program Cross-Site Evaluation

Recommendations for the National Program

- Increase capacity for evaluation of services to children and youth
- Improve counselor skill in eliciting participant stories and experiences
- Increase counselor capacity to recognize and respond to more serious levels of participant distress
- Determine the boundaries of how much programs should vary in service mix and delivery
- Provide additional guidance pertaining to effective group counseling approaches
- Improve the overall quality of counselor training
- Advocate for better mental health care for disaster victims who need more than crisis counseling.

Recommendations for Local Programs

- Increase the overall intensity of services by spending more time with participants and/or following up with them more often
- Increase the overall intimacy of services by choosing settings, such as homes, that foster privacy and focus
- Increase the frequency of referrals to psychological services
- Reduce counselor job stress, especially in badly stricken areas.
- Employ an adequate number of professional counselors to provide expert supervision, advice and triage.

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Department of Health and Hospitals

Testimony for:

"Post-Catastrophe Crisis: Addressing the Dramatic Need and Scant Availability of
Mental Health Care in the Gulf Coast"
October 31, 2007

Ad Hoc Subcommittee on Disaster Recovery
Committee on Homeland Security and Governmental Affairs
United States Senate

I. Introduction: Madam Chairman and members of the committee, thank you for the opportunity to testify on the current status of Louisiana's mental health system and the challenges we face. Today, I will share with you the immediate pre-Katrina status of the mental health system, the impact of hurricanes Katrina and Rita on the mental health system, the current demand for access to mental health care, our current infrastructure capacity, and the ongoing mental health care needs of hurricane survivors. I will close with a brief review of current challenges and a description of the most pressing needs and recommendations for addressing these needs.

II. Background: It is helpful for both the current context of this subcommittee hearing on the mental health crisis present across the Gulf Coast, and the historical importance of this national catastrophe, to briefly reflect on the mental health environment in Louisiana prior to August 2005.

Recognizing the importance of health care reform in Louisiana, Governor Kathleen Blanco and Senator John Breaux co-chaired the first Statewide Health Care Summit in March of 2004. This included a call for review and analysis of the current array of mental health resources and recommendations for transforming the use of these resources into a comprehensive and contemporary mental health system. Under the guidance of the Secretary of the Department of Health and Hospitals, in-depth public hearings were conducted throughout the state in 2004. These hearings were attended by hundreds of actively involved community members, persons with mental disorders, family members, and mental health practitioners.

The highlights from the June 2005 *Report on the State of Mental Health Delivery System in Louisiana* are particularly salient as they reflect three important dimensions necessary for systemic mental health service transformation: (1) understanding of the fiscal realities, (2) understanding of the public perceptions around mental illness and towards those with mental illness, and (3) up to date technical knowledge about best practices and programming to better serve individuals with mental illness. Subsequently, *Louisiana's Plan for Access to Mental Health Care* was released in 2007. This comprehensive mental health plan has five operational goals:

1. Increase the use of evidence based, developmentally appropriate practices, for children, adults, and families to access needed mental health services;
2. Establish an accessible continuum of crisis services and crisis avoidance and to provide a realistic array of treatment services in both the private and public sector;
3. Provide effective services for children, young adults and their families which are designed to meet their emotional, cognitive, developmental and physical needs, provided in environments to ensure success;
4. Provide primary health care and behavioral health care at comprehensive access sites; and
5. Provide all individuals with behavioral health (mental health and/or addictive disorders) conditions with appropriate individualized supportive services to secure and maintain their education, employment and housing goals.

A *Five Year Master Plan* has since been developed and is an operational component of the Louisiana's *Plan for Access to Mental Health Care.* Despite Hurricane's Katrina and Rita, the state and its stakeholders have continued to work towards transforming the state's mental health system. However, this work is challenged by the effects of the hurricanes, particularly through the rise of a new population – the hurricane survivor population, and the increased need for services by people with pre-existing mental illness.

III. The Ongoing Mental Health Crisis in the Gulf Coast

Based on national prevalence data from the Substance Abuse and Mental Health Services Administration (SAMHSA), it is estimated that 1 in 5 individuals in Louisiana experience a diagnosable mental disorder in any given year, which equals 650,000 adults and 245,000 children. While not as visible as many physical limitations, mental health disorders manifest themselves differently amongst different population groups. Examples include teen suicide, youth arrests, higher need for foster care, incarceration, hospitalization, and higher disability rolls.

The two-fold challenge post hurricane is that hurricane survivors are facing a myriad of issues. In the Greater New Orleans area, over half of the survivors are dealing with multiple adversities as a result of Katrina. A Kaiser Family Foundation study revealed that over half of the respondents reported that their financial situation was worse after Katrina and over one third experienced a disruption in their housing or social network as well as their access to health care. (Source: Kaiser Study "Health Challenges for the People of New Orleans: The Kaiser Post-Katrina Baseline Survey" http://profile.kff.org/kaiserpolls/7659.cfm)

Specifically regarding mental health, several reports reveals the following highlights:

- More than one in ten adults (13%) ranked their overall health as fair or poor, which is a good indicator of the need for current and future medical attention;
- Mental health challenges were also evident for adults, with about one in twelve adults (8%) ranking their mental health as fair or poor;
- One in twenty adults reporting symptoms of depression (6%) or Post-Traumatic Stress Disorder (PTSD) (5%);
- The economically disadvantaged and the uninsured had relatively higher rates of physical and mental health problems, and these groups had the added difficulty of accessing the care they needed with fewer available personal resources and the loss of safety net facilities that existed before the storm.[1]
- For the 18 parishes surveyed (2006), the percentage of people experiencing a serious mental health condition (a score of 13 or higher based on the K6) ranged from 3.2% to 17.8%, with 10 parishes over 10%.[2]

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[1] Kaiser Family Foundation, "Health Challenges for the People of New Orleans: The Kaiser Post-Katrina Baseline Survey" http://profile.kff.org/kaiserpolls/7659.cfm)

[2] LPHI 2006 Louisiana Health and Population Survey, http://popest.org/popestla2006/)

Emotional Impact on the Gulf Coast / Louisiana

It has been 26 months since hurricane Katrina made landfall. Since then Louisiana Spirit, the state's federally funded crisis counseling program under the Stafford Act, has worked to offer crisis counseling that empowers Louisiana hurricane survivors to build resilience, recover and move towards self sufficiency. As a result, Louisiana Spirit has conducted over **2,605,212** contacts with hurricane survivors within Louisiana (data current through September 30, 2007). Over **393,088** Individual Crisis Counseling Sessions have been conducted within the state to an estimated **239,908** unique individuals. In the Greater New Orleans area, over **120,694** sessions have been conducted to an estimated **103,151** unique individuals. Of these individuals, over **14,217** have been children and adolescents statewide, and **2,909** have been children and adolescents in the Greater New Orleans area.

In these individual sessions, data on various mental health related risk factors is collected. These factors range from emotional to economic issues that all have an overall impact upon the mental health of an individual. Of those individuals seen in the month of September, 2007 (24 months after the storm), the following percentages of persons displayed these risk categories:

Percentages of Individuals Displaying Risk Categories During the Month of September 2007

	Statewide	Greater New Orleans Area
Injured or Physically Harmed During the Storm	5.56%	9.28%
Life Was Threatened During the Store	16.51%	18.10%
Family Missing or Dead	6.34%	10.03%
Friend Missing or Dead	5.80%	8.92%
Witnessed Death and/or Injury	6.78%	6.14%
Prolonged Separation from Family	35.06%	35.52%
Home Was Damaged	83.53%	90.05%
Displaced From Home At Some Point Since the Storm	79.58%	90.70%
Experienced Disaster Related Unemployment	29.39%	35.49%
Suffered Other Disaster Related Financial Loss	53.12%	47.80%
Assisted With the Rescue and/or Recovery Effort	11.29%	7.02%
Evacuated Quickly From the Storm	61.95%	77.60%
Witnessed Community Destruction	55.62%	49.03%
Past Substance Abuse and/or Mental Health Problem	20.41%	8.32%
Have a Pre-existing Disability	11.67%	8.59%
Experienced Past Trauma	19.99%	17.30%

From the above table, the following inferences may be drawn:

- The vast majority of survivors lost their home and found themselves displaced due to the storm.
- Between 16% and 18% felt their life was threatened.
- As a measure beyond the immediate storm, almost 1/3 found themselves losing their job and 50% experienced some type of financial loss.
- About 20% had already been exposed to some type of prior trauma.
- Roughly 10% reported some type of pre-existing disability.

- These risk categories are not exclusive, rather occurring in multiple levels.
- The fact that these individuals did experience such multitude of risk exposures from the storm further inhibits successful recovery.

In Southwest Louisiana, which was directly impacted by Hurricane Rita, recovery is slow and the emotional impact on children, adults, seniors, and first responders continues to be a major recovery issue. Within the last 90 days the Louisiana Spirit crisis counseling program delivered 4,306 individual contacts. This number includes 1,615 first encounters (38%). In addition, there were 14,949 brief encounters delivered during this period and 3,560 group/public education contacts were made. Of this 3,560, 64% (2,287) of these contacts were through public education and 35% (1,254) were through group crisis counseling. Group contacts (including public education) were delivered in a variety of settings including community centers and schools.

Specialized Crisis Counseling (SCCS) teams from Louisiana Spirit have reported a new kind of crisis. They estimate that 1/3 of the individuals receiving services are in immediate crisis. They are seeing a pattern of suicidal ideation, hopelessness and helplessness. Survivors are growing more and more desperate each day due to the lack of progress in rebuilding/ moving back to their homes and as they face the reality of the financial and physical loss and the possibility of homelessness. More often than not, the resource needs are extensive.

In many cases, the individual's mental health condition is exacerbated by their living situation. SCCS continue to provide emotional support during crises. However, many individuals have a need for traditional mental health treatment, but refuse all referrals. There is a stigma attached to mental health treatment that crosses many of the cultures serviced, including the fear of being considered and called "crazy". Some survivors prefer to talk to outreach workers, as they do not see that as a mental health service. Many people have been getting prescriptions for psychotropic medicines from their primary doctor, and tend to believe that counseling and mental health services are unnecessary. For those who are on psychotropic medicine from their physicians, SCCS are providing psycho-education on the benefits of counseling. It is encouraging that each week, the number of people who are talking about counseling and seriously considering help is increasing.

Referrals for the SCCS continue to come in as the anniversaries of the hurricanes approach. The threat of another hurricane terrifies people who are in temporary housing and still not back in their homes, or back to their pre-storm way of life. The losses suffered after Hurricane Rita, coupled with the obstacles faced during recovery have left many people broken, desperate, irrational, defensive and apathetic. They report having problems sleeping, inability to secure employment, financial stress, and lack of transportation. Some are experiencing grief and loss following deaths of family and friends. Depression, anxiety, and anger are the most common reasons for referral. There are also survivors with addictive disorders and suicidal ideation.

SCCS plays a crucial role in identifying specific problems which survivors would not generally mention if not asked directly. Many people say they are "fine." But when interviewed in a formal manner, they admit to being bothered by their change in sleeping patterns, increased awareness and fear; anxiety and depressive symptoms, which they were not experiencing before the storms. The greatest benefit of the program is being able to provide additional attention to address multiple and persistent problems.

Louisiana enters into the 3rd year of post-hurricane recovery with a battered and weary population of survivors who continue to struggle with recovery issues normally resolved within 90-180 days after a hurricane. The mental health system, struggling before the storm with a D- rating from NAMI, has been further compromised with an accelerated reduction in its professional direct service workforce, substantial loss to its physical infrastructure, and the emergence of a new population of disaster survivors who desperately need access to flexible and adequate mental health services.

IV. The Most Pressing Mental Health Recovery Problems and Recommendations

Recently the Louisiana Spirit crisis counselors where asked to report on what they saw as the most pressing needs among the survivor population. Response from staff throughout the state indicate: (1) the needs of children who continue to experience anxiety, depression and fear which is often associated with the lack of a secure peer group, a stable home environment and adjustment to new and temporary schools, and residences. (2.) Housing and transportation challenges continually limit many survivors recovery as they are thwarted from finding jobs due to not being able to get to work, their ability to provide the basic needs for their families, and the hostage-like situation of not being able to secure a permanent housing situation and community in which they are comfortable moving on with their lives; (3) older adults are more at-risk for chronic diseases and have more of a struggle managing the day to day adversity associated with living in a post-hurricane Louisiana; (4) medical care across the age span; (5) depression, which is often characterized by weight loss, isolation and listlessness; (6) persons in mental health crisis, again many survivors are living in rural areas with limited access to mental health care, many parishes do not have mental health clinics or inpatient psychiatric beds; (7.) fear of the unknown, this includes extreme anxiety over personal safety be it from another devastating storm, or personal attacks, such as being robbed or assaulted. Survivors also experience extreme anxiety over their own personal future and that of their children, as the recovery process continues to extend into years, not months, many are concerned they will never have a stable future again.

As one Louisiana Spirit worker commented:

...from what I've seen, there is a sense of futility expressed sometimes in the weekly reports, as they (survivors and counselors) seem to feel there is only so much a crisis counseling program can do when people are facing such huge barriers to meeting basic needs such as housing (frustrations with Road Home, etc.) and transportation. They also talk about people being so tired of getting the "run around" and no results that they have given up completely on the idea of receiving any type of assistance from any governmental entities.

Many of the recovery issues confronting hurricane survivors center on basic and tangible needs. If disaster survivors were in safe, secure and stable housing, had access to jobs, schools, a community of peers, and felt secure in planning their future, many of the mental health needs would naturally dissipate.

However, since this is not the case, from the perspective of the State, the most pressing needs for the mental health system is to continue a range of mental health services inclusive of those provided by the crisis counseling program, coupled with ready access to brief treatment interventions. *The Office of Mental Health is not statutorily directed nor funded to serve this population, what is required are general population services, for persons who are not diagnosed with serious and persistent mental illness, or in the case of children, serious emotional disturbance. By strategically investing in our ability to provide early intervention we can significantly combat the recovery pressures leading to hopelessness and despair within the recovering population.*

Through a joint state and federal partnership we must develop services for the general population which will:

1. Provide quick referral and treatment for anxiety, depression, and developmental issues.
2. Acknowledge and treat issues of profound grief and loss associated with the recovery process for those living in Louisiana and also those survivors returning to Louisiana.
3. Ensure rapid response to psychiatric emergencies throughout the state that are culturally competent and are sensitive to the stigma issues many associate with accessing mental health care.
4. Provide community education and group interventions and support designed to assist survivors in re-establishing a sense of predictability and security in their lives.

Priority Recommendations:

A. Improvements to the current system.

1. Reverse the trend in workforce shrinkage by aggressive recruitment and retention efforts to secure a trained and professional direct service mental health workforce.
2. Prioritize changes in the service delivery system to include programs and services aligned with a public health model of prevention and early intervention. This includes the funding for brief interventions/treatment and ongoing crisis counseling such as the Louisiana Spirit program.
3. Appropriate funding based on a five year recovery cycle instead of brief one-two year appropriations.
4. Reduce restrictions on use of funds so more flexible and non-traditional approaches to care can be quickly implemented.
5. Encourage public and private sector collaboration so that public funds can be utilized in private sector service delivery infrastructure; i.e., reimbursements for hospital and clinic-based care.

B. Increasing access and availability to mental health services in the wake of the next disaster.

1. Prioritize and fund a national strategy to train the general public and non-mental health service providers in primary intervention strategies, such as psychological "first-aid".
2. Build a mobile and flexible volunteer cadre of mental health professionals.
3. Provide funding for mental health mitigation initiatives which will allow for continuity of operations of existing infrastructure to serve priority population groups with ongoing serious mental disorders as well as respond to the general population surge for mental health interventions prior to and following another major disaster incident.
4. Build a statewide public awareness and intervention program targeting vulnerable population groups.
5. Develop funding and program guidance specific to the recovery from catastrophic events.

Funding and Regulatory Obstacles to the delivery of effective mental health care:
Current funding streams for the Office of Mental Health include State General Funds, and various sources of federal funds. Most of this funding supports existing operations which provide direct services to the serious mentally ill (SMI) and seriously emotionally disturbed/emotionally and behaviorally disordered (SED/EBD) populations. As such, individuals who receive services must meet certain population eligibility requirements. The public system is designed to serve a mandated priority population of children and adults with severe and ongoing mental disorders or persons whose current mental health status rises to the level of dangerousness to themselves or others, or who have become gravely disabled by their mental condition to the point of requiring health care in a highly structured and/or secure setting. For the most part, services, designed to address the general population emergency response and recovery issues are not available through traditional funding sources.

Furthermore, agency funding which has been allocated for disaster response and recovery are subject to the same regulatory checks and balances to assure the population served is congruent with the population associated with the intent of the funding. For example, Louisiana state bid requirements significantly impacted the rate of implementation of the SSBG funding, adding months of delay.

The Immediate Services Program (initially a 60 day program), crisis counseling funds awarded under the Stafford Act flow from FEMA to the Governor's Office of Homeland Security and Emergency Management. FEMA relies on programmatic oversight from SAMHSA. Thus before these funds are actually approved for expenditure and result in direct services, the requirements of two federal agencies and two State agencies must be satisfied. The Regular Services Program (initially a 9 month program), crisis counseling program is awarded directly to the Office of Mental Health by SAMHSA. This is a more efficient process but also requires FEMA oversight of all SAMHSA decisions/recommendations.

An example of a regulatory obstacle: the crisis counseling program grants typically represent a small percentage of the provider agency's budget. However in a catastrophic event such as the one associated with hurricane Katrina, the small non-profit agencies that provide the direct services are severely financially compromised by federal program office fiscal guidance which does not allow for any indirect cost allocation.

Often well intentioned restrictions (agency developed guidance) on how funds can be used result in programs being developed to comply with the federal program guidance, which in situations of the magnitude of hurricane Katrina are not always consistent with the immediate needs of the survivor populations.

The development of federal and state fiscal and programmatic guidance specific to rapid implementation of services following a catastrophic incident would be of great service to disaster impacted persons and communities.

Conclusion: I want to thank this committee for its attention to the needs of Louisiana's hurricane survivors, particularly your concern regarding their mental heath and emotional well-being. The funding that has been provided by the federal government for mental health services is greatly appreciated, and I hope I have given you an indication how valuable these services are to individuals and communities. However, I would also like to emphasize that we have ongoing mental health recovery issues that in some way seem to be expanding, not receding. I greatly appreciate this opportunity to testify today, as well as your commitment to the recovery of the Gulf Coast region.

Attachment 1: Anecdotal Stories from Louisiana Survivors

In addition to formal reports, the popular press is replete with anecdotal stories. Below are three recent examples which illustrate the challenges of recovery:

1. A recent Washington Post story illustrates the reality of New Orleans today:

Hurricane Katrina Exacts Another Toll: Enduring Depression
Health Officials Cite Stresses of Rebuilding
By Peter Whoriskey
Washington Post Staff Writer
Sunday, September 23, 2007; A03

NEW ORLEANS -- A gravel-voiced fire department captain, Michael Gowland says he had never been a big crier. "I'm not a Neanderthal," he said last week, "but I wasn't much for tears." Now, sometimes, he cries two or three hours at a stretch. Other times, his temper has exploded, prompting him one day to pick up a crescent wrench and chase an auto mechanic around a garage. Even more perplexing to him, the once devout Roman Catholic now wonders "if there's anything out there." "If anyone had told me before that depression could bring me this low, I'd have said they were a phony," Gowland, 46, married and a father of three, said during a break from fixing his flooded home. "Everything bothers me."

More than two years after the storm, it is not Hurricane Katrina itself but the persistent frustrations of the delayed recovery that are exacting a high psychological toll on people who never before had such troubles, psychiatrists and a major study say. A burst of adrenaline and hope propelled many here through the first months but, with so many neighborhoods still semi-deserted, inspiration has ended. Calls to a mental health hotline jumped after the storm and have remained high, organizers said. Psychiatrists report being overbooked, at least partly because demand has spiked. And the most thorough survey of the Gulf Coast's mental health recently showed that while signs of depression and other ills doubled after the hurricane, two years later, those levels have not subsided, they have risen.

"It's really stunning in juxtaposition to what these kinds of surveys have shown after other disasters, or after people have been raped or mugged," said Ronald C. Kessler, a professor of health-care policy at Harvard Medical School, who led the study. Typically, "people have a lot of trouble the first night and the first month afterward. Then you see a lot of improvement." But, in New Orleans, the percentage of people reporting signs of severe mental illness, suicidal thoughts and post-traumatic stress disorder increased between March 2006 and the summer of 2007, the survey showed. "A lot of people had this expectation in New Orleans that, 'Dammit, by next Mardis Gras, we're going to be back' . . . and then they weren't," Kessler said. "Then they said, 'By next year, we'll be back,' and they weren't. We're in this stage of where there are a lot of people just kind of giving up."

Times-Picayune columnist Chris Rose wrote about his own depression in a widely discussed newspaper article published in October and then in his recent book, "1 Dead in Attic." The article struck a chord. "I probably amassed 3,000 e-mails from people who felt like me," Rose said. "Now they come up to me in the grocery store and tell me what meds they're on. I say, 'Congratulations."

Depression is often discussed in terms of chemical causes, but interviews with psychiatrists and patients here ascribed its appearance in post-Katrina New Orleans to the stresses of rebuilding. Because of the hurricane, many have lost or changed jobs. Thousands are still living in cramped FEMA trailers and many are living in semi-deserted streets. "If you've lost your job, you've lost your house and you've lost your friends -- well, you ought to be depressed, man, or else you're out of touch with reality," said psychiatrist Elmore Rigamer, the medical director for Catholic Charities in New Orleans, which runs five city mental health clinics. "What we can do for these folks is to make them understand that they're not crazy," Rigamer said. "And then they can explain it to their wives and husbands."

Lyn Byrne, 58, a physical therapist, lost her Gentilly home to the flooding. Before the storm, she said recently: "I was a regular person. I had a house. I had friends, I had book clubs, I had Monday night chick flicks. I had a church." Byrne was fine until she moved back to New Orleans more than a year after the storm to try to salvage her property. Since then, she has lost more than 30 pounds. She often found herself crying on a whim, nervous about everything, and suddenly uninterested in socializing. When the Tylenol PM stopped putting her to sleep, she sought out a psychiatrist and, while she had just expected to get sleeping pills, she wound up talking and crying for two hours. The psychiatrist put her on doses of Zoloft and other antidepressants -- then ratcheted up the dosages. In telling her story, she asks: "How could I not end up anxious and depressed?"

Her troubles began with the FEMA trailer. Three times she flew down from New York, where she was staying with her mother, for an appointment with the federal contractor who was supposed to deliver the trailer to her front yard. The contractor missed each appointment. Finally the trailer arrived. But with only one in four of her neighbors back, her old neighborhood is a forlorn and sometimes threatening place. Her car has been stolen twice from the driveway. Once, while she was sleeping in her trailer, burglars broke in and stole her purse and other personal items. Now before she goes to sleep at night, she hangs water jugs off the window latches and puts the trash can beside the front door in hopes of foiling the next intruder. "Do you think I'm having mental issues yet? Wait -- it gets better," she said. Her biggest problem is trying to finance her house repairs and escape the trailer: Like thousands of others in Louisiana, Byrne did not have enough insurance. She has received $40,000 from her flood and homeowner's insurance policies, but a contractor told her the repairs would cost $133,000.

The state's ***"Road Home"*** program is supposed to provide financial aid for people in her situation. Yet, although she was one of the first to apply, she still has not received a check. Two years after the flooding, Byrne has no idea when she will ever get out of the trailer or stop driving around with laundry in the car in search of an open laundromat, and whether her friends and church. St.

Raphael's Catholic, will return. "People say, 'Oh, we're coming back -- look at the French Quarter or Magazine Street.' But I don't live there. Where I live, there's no church and no laundromat and no people. It's just so tragic, and it keeps getting sadder and sadder."

According to the Harvard survey, many people in New Orleans feel the same way. Between March 2006 -- six months after the storm -- and summer 2007, the number of people reporting signs of serious mental illness rose from 11 percent to 14 percent. Before the storm it had been about 6 percent. Similarly, the number of people who reported thoughts of suicide rose from 3 to 8 percent in New Orleans.

"There's more depression, more financial problems, more marital conflict, more thoughts of suicide," said Daphne Glindmeyer, a New Orleans psychiatrist who is president of the Louisiana Psychiatric Medicine Association. "And a lot of it is in people who never had any trouble before." Interviews with psychiatrists turn up story after story of people with no history of depression plunged into mental anguish deep enough to require treatment. A teenager living in a trailer turns homicidal. A woman whose mother died in the car during an evacuation -- and then could not be taken to funeral home -- suffers post-traumatic stress disorder. A firefighter involved in dozens of rescues seethes with anger at the region's inability to come back.

"These people don't necessarily need a good psychiatrist," Rigamer said. "They need a good contractor or someone to fix the 'Road Home' program and good leadership." Retrieved from: http://www.washingtonpost.com/wp-dyn/content/article/2007/09/22/AR2007092200600

2. **Below are two situations faced by survivors which illustrate the challenges many survivors confront on a daily basis. Left unattended these situations worsen and increase the demand for more intensive and complex treatment, which if needed, is largely unavailable to many survivors:**

Uphill battles

A family living in Cameron Parish lost everything that they did not evacuate. The mother had brought her young son and teenage daughter in because they were still struggling with adjustments after the hurricanes. As I spoke to the kids, I realized that they need some help but quite possibly the mother needs more help. She is tired! She is a mom that has a home based business and use to dealing with business. She pointed out quite astutely that there are so many little rules with hurricane recovery from insurance to road home that it is unbelievable that things are not resolved and will not be for awhile. One little thing sets off 5 other things to have to take care of. It is a chain reaction which makes people have to have a lot of fight in them. Luckily she does right now. But I could see when she talked about it that it was taking its toll on her mental health. Her daughter pointed out that her mother was more worried and more easily aggravated. I am concerned about all the other people in this area that do not have as much education and fight in them. We

seem to be seeing a lot of folks like this now who are finally seeking out the help they need.

Grandparents rearing grandchildren in the Lake Charles area

This couple has custody of their two grandsons because the mother has had a problem with substance abuse. Hurricane Rita damaged the mother's mobile home and she has been living in old rundown trailers, with men who have a history of substance abuse and domestic violence. The grandparents have been desperately trying to get help for the mother, as well as the boys and themselves. They are all emotionally distraught due to the chaos and stress that they have experienced.

The grandparents were given resource information to help them get support for themselves and the boys. A couple of weeks ago the grandmother finally saw a mental health doctor about her emotional state and was given a prescription to help her cope with the stress of trying to care for two ADHD boys and their addictive personality mother. She has the opportunity to get a referral to a mental health counselor after she stabilizes on the medication, and is feeling better. The boys have been linked to the school counselor and the oldest boy will be evaluated by an adolescent counseling agency in a couple of weeks. Both grandparents have been referred to Al-anon for support with the ongoing issues with the boys' mother, and to learn how to cope without trying to control. They have been very grateful for the support and information resources that the Louisiana Spirit Program has provided to them. At the last meeting the grandmother stated that on a scale of 1-10, with 10 being the worst and one being the best, she felt like she was a four.

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Testimony for:

"Post-Catastrophe Crisis: Addressing the Dramatic Need and Scant Availability of Mental Health Care in the Gulf Coast"
October 31, 2007

Ad Hoc Subcommittee on Disaster Recovery
Committee on Homeland Security and Governmental Affairs
United States Senate

Introduction:

Madam Chairman and members of the Committee, thank you for the opportunity to testify on the current status of the need for, and availability of, mental health care in the Gulf Coast, specifically, Louisiana's greater Baton Rouge area. I am Dr. Jan Kasofsky, Executive Director of Capital Area Human Services District (CAHSD), the publicly funded mental health authority in the Baton Rouge region. Today I will share our progress in serving the community, highlight the shortage of psychiatrists, and present other factors currently impacting the local mental and physical health care and the disaster delivery system. I will close my testimony by describing the continuing and most pressing needs in the greater Baton Rouge area's system of care.

In the years since Hurricane Katrina, much has been accomplished locally through collaboration, innovation and increased funding to serve the large number of evacuees who have traveled through and relocated to the Baton Rouge community. Of the initial surge of 350,000 evacuees, estimates remain at between 30,000-40,000 who have chosen to stay. It must be acknowledged that this population of individuals may or may not be the comprised of the individuals due to the continuous migration, into and out of this community. Many individuals are seeking to return to the state from afar and use this community as a nearby re-entry point. Many continue to live in transitional housing and the number of homeless continues to expand. There is no question that the rate of disabilities and homelessness in this population, particularly mental illness, is much higher than in the typical population. This is reflected by the sustained 65% increase

post-Katrina in the use of our clinics and outreach personnel. The ongoing mental health crisis in this region speaks to sheer numbers and levels of acuity. While we have "front loaded" our clinics and outreach services for rapid and easy access to our consumers, many in need are then lost due to the lengthy waits for follow up care.

Overall State of Mental Health Infrastructure:

In Louisiana, prior to Katrina, the reliance on facilities for acute care beds, the use of emergency rooms as the main point of entry to access care, the lack of electronic information technology, and the low level of integrated care across disciplines and between community-based clinics and acute units, led to a system equipped to serve those with only the most severe mental illness, and ensured a high level of recidivism among the mentally ill. In reality, the most devastating blow dealt by Katrina against the mental health system was the decimation of the facilities in the greater New Orleans area and the diaspora it created for the mental health practitioners. This occurred due to the fact that geographically, New Orleans served vast numbers of patients from across the state. With the demise of the facilities and the evacuation of physicians, many of whom have now left the state, the loss of this centralized system of care in New Orleans continues to greatly impact the Baton Rouge area's ability to meet local demands.

Local Emergency Departments

In the ongoing aftermath of the hurricanes, there has been a steady, and now permanent increase of 30% in the number of adults presenting to emergency departments in psychiatric crisis in the Capital Area, causing emergency departments to be placed on "divert" more often. The relocation of evacuees, the loss of housing, inpatient psychiatric beds and health care infrastructure, including the loss of emergency departments in the

Orleans area, have greatly increased the population and acuity of those suffering with mental illness, substance abuse, and homelessness. In late August 2006, CAHSD formed a collaborative of service providers including emergency room physicians and administrators, "First Responders" (law enforcement, EMS), coroners, and other health professionals from the seven parish area, to study service delivery model options. Everyone agreed that when people with behavioral health problems rely on a general emergency department to provide their care, they enter into an ongoing cycle of recidivism because they cannot get the ongoing care they need in that setting. CAHSD was able to fund clinic-based service expansion due to an increased appropriation to help prevent crises, yet the missing continuum for those in crises needed further development. The large numbers of people using the emergency departments were a clear result of a larger and more acute population trying to access acute care beds through the emergency departments, due to both increased trauma and the loss of public and private beds from the greater New Orleans area and an overwhelmed local public out-patient clinic system. Many private psychiatric beds will not reopen in the affected areas and half are gone forever, while the public beds continue gradually to be re-established.

Homelessness

The impact of homelessness cannot be overstated. Figures post-Katrina show an increase of 15%, and rising in the Baton Rouge area. Many were homeless in New Orleans before Katrina and were evacuated to this area, and while the homeless population here continues to grow due to the loss of housing in the New Orleans area and increased rent, the population of disabled continues to grow in the Baton Rouge area. Last year in a point in time survey of local homeless people, 1100 persons responded and

stated their reasons for homelessness: 34% due to addictions, 25% due to mental illness, 23% due to Katrina, and their stated disabilities: 38% addiction and 42% mental illness. While these figures are consistent with other locales, 37% noted that they did not reside in this part of the state prior to Katrina. Based on these figures it is clear that many were mentally ill or suffering from addictions before they evacuated, but it is unclear as to the number previously in treatment. Advertising our clinic locations, expanding hours, and providing access to all, prevented many more from ending up on the street, being ejected from their shelters and becoming incarcerated.

Prevalence of Mental Illness:

Prior to and immediately following the flooding in New Orleans, CAHSD began assisting evacuees by deploying integrated teams of behavioral health and primary care providers to assist the 350,000 people spread out over 67 shelters, hotels and then later into the transitional housing sites. Assisted by the Louisiana Spirit Teams we located and performed primary and secondary level screens on over 7,000 people. Our goal was to rapidly locate and deploy teams to provide appropriate, accessible, and timely services to maintain mental health stability, prevent on-set of serious mental illness, and provide treatment and referrals for ongoing care to people in crisis. Our teams dispensed medications to many, supplied from our own pharmacy and the good will of regional pharmaceutical company representatives. These psychiatric medications were not made available in the special needs shelters, aside from our own supply, and I am told, are not part of the Federal Government's formulary. Initially we opened our clinics and admissions criteria to serve everyone and saw a large influx of people both from the public and private system in New Orleans. On a transient basis, evacuated physicians

joined our team along with private sector psychiatrists. Most patients needed access to their ongoing medication regiment. Most of the "new" patients were struggling with anxiety which we have now added to our permanent admission criteria. New patients were required to be seen more frequently and needed to receive higher dosages of their medications than within the non-evacuee population. Our ongoing patients, who prior to the storm waited one month between appointments, were forced to wait three months, and many dropped out of treatment.

By six months post-disaster, our adult mental health clinics saw a 70% increase in new admissions. Today we have a 65% increase compared to pre-Katrina. Currently, comparing pre- and post-Katrina statistics, our mental health clinics, excluding our mobile treatment teams' volumes, have an increase in unduplicated clients annually of 1,277 (27%), and an increase in new admissions annually of 707 (64.5%). The clinic closest to the transitional housing sites (Renaissance Village and the Airport FEMA sites, as well as the commercial sites) had been our second busiest clinic but now has caseloads equivalent to our largest clinic, with an annual increase in admissions of 326 (124.4%). Patients in the trailers were identified by our mobile and ACT teams, and ongoing transportation to our clinic is provided by this agency. During FY'07, there was an annual increase of 47 Physician Emergency Certificates (PEC) (121%) within our own clinics. All of these patients require hospitalization. The level of acuity in our clinics continues to increase and our latest statistics show the increase in PECs is now approaching 30 per month. Numbers in all local community hospital emergency departments total over 700 per month inclusive of all types of legal holds.

We recently set up a phone screening system to augment the agency's Access Service which we initiated soon after the storm. We receive over 8,000 calls monthly, with more than 865 being referred to a social worker, over 500 undergoing a screen by a social worker, and the majority of these people are deemed to qualify for our services.

Overall we are seeing the same types of diagnoses as before Katrina, but some new patients are now also struggling with depression. Many of the patients with pre-existing mental illness now have PTSD symptoms co-existing, as do many of the new patients experiencing depression. There is little pure PTSD because extended grief reactions are now being expressed as depression. One could describe clinically what has been seen as a cycle comprised of the following three phases: 1. evacuees wanting medications to remain stable (some brought in by family members for this), who comprised the clinic walk-in patients immediately post- Katrina, and include those newly coming into the region, 2. patients discharged from hospitals after four months and beyond, and post-Katrina patients who were hospitalized secondary to stress-related decompensation, but more so, because they did not receive their medications fast enough following evacuation, and 3. people returning to Louisiana from out of state trying to get home and are now new to our mental health services, perhaps starting at step number one.

Our services to children and adolescents had also increased sharply, but are now dropping. These services are provided in a more decentralized system than our adults with delivery in our main clinics, satellite clinics in schools, Federally Qualified Health Centers (FQHCs), primary care/rural clinics, public health units, Offices for Community Services (OCS), and through three types of mobile teams. Numbers seen annually have now stabilized at a 12% increase attributed to the evacuee population. Most of the

children and adolescents are diagnosed with ADHD and anxiety disorder. Some are diagnosed with PTSD, but less severe than in the adult clients. Many patients also had behavioral problems prior to the evacuation and the storm exacerbated their symptoms.

Impact on Medical Personnel and Staffing Level:

Recruitment and retention of psychiatrists is at a critical stage within the local mental health system. While we have established new and faster processes to access services at our clinics, we continue to lose clients following their initial appointments due to the wait times between services. Physicians are increasingly uncomfortable with initiating treatment and assuming responsibility for a patient's care while facing limitations in how soon the patient can return for follow up. This time ranges from one month to three months. Wait times for new appointments with physicians at our adult clinics are up to 12 weeks, and for the child/adolescent clinics 10 weeks. Although we have funded positions, they go unfilled even with offering competitive salaries, using national recruitment agencies, and attempting to use locum tenens to fill in. It is essential that the recruitment incentives for physicians, both psychiatrists and medical specialists and nurses, in the Greater New Orleans area be available to the greater Baton Rouge area to enable the system to serve the evacuees who continue to live here and to use this as a stopping point for preparing to return home. The population here is comprised of the very people who left during the floods. They are the New Orleanians in need of mental and physical health care. It is nearly impossible to recruit the staff needed, when all incentives are geared only to rebuilding efforts without consideration of impacted areas that are treating the populations that remain. Even efforts to recruit the USPHS providers look only to provide placement in New Orleans. It is very clear that our continuing

efforts will never allow us to get ahead of the cycling of the chronically mentally ill through crisis and hospitalization if we cannot provide adequate access to psychiatrists.

Accessibility of Medical Care:

Primary Care to the Evacuee Population

Almost as soon as the flooding began in New Orleans, local providers received e-mails and calls to convene in Baton Rouge at CAHSD to discuss evacuee needs and plan a response. This collaborative, comprised of approximately 70 agencies and providers met on a daily basis for months, then monthly, and was terminated last Spring. Providers were both private and public sector, and behavioral health and physical health providers, including local clinics, FQHCs, Office of Public Health staff, and evacuee providers. It was determined from the inception that deployment teams would be multi-disciplinary and would screen and treat both medical and behavioral health needs. It was also decided that as much as possible, people who could access permanent facilities would be directed to do so to speed their access to care, take pressure off of the mobile teams, avoid redundancy/multiple calls on the same individuals, and ensure a higher level of care by attaching patients to ongoing care from a permanent provider, facility and medical records. From the beginning we prioritized the use of permanent, pre-existing providers and facilities. Aside from using these teams to go to the shelters which operated for the first three months post-disaster, this collaborative also established medical and behavioral health hubs at the congregate housing sites with mobile units whenever possible. Unfortunately, our many requests for tents and modular facilities on the premises were ignored and many providers saw patients in open spaces, without privacy or shelter from the weather, or in cars. The community providers feel as a whole we were able to

accomplish the goal of primary care access during the height of the evacuation, and through the many months that followed by utilizing our hub model of localized authority in the congregate setting with mobile clinics. Since our initial goal was to make evacuees aware mobile services were temporary, and they were provided clear termination dates to transition services to permanent sites, we are seeing high rates of utilization among the local FQHCs and the hospital clinics across the region. It was crucial to identify, communicate, educate and increase awareness of all community resources so that residents were appropriately linked long before termination of mobile units. A contract was placed by CAHSD to provide transportation from Renaissance Village to CAHSD's clinics, local FQHCs and the Public Health Clinics, and it continues to be utilized. Most recent utilization rate is about 100 per month with 75% utilization for access to primary care clinics.

Specialty Care

When there is a protracted period of time to serve an evacuee population it is not feasible to only address primary care needs. Many evacuees suffered from chronic diseases requiring attention by specialists, and many needed access for cancer treatments and other life sustaining therapies initiated before the floods, but there was not and still is not, access to specialists due to the huge numbers seeking to access the few pre-existing specialists in the community. Wait times to access the public specialty clinics such as cardiology, GI, orthopedics, endocrinology, ENT, pulmonary, and rheumatology run from 10 weeks to 20 weeks. No new patients are currently being accepted for neurology. There remains a great need for additional specialists to expand capacity at the public specialty clinics.

Primary Care to the Chronically Mentally Ill

Within all of its mental health clinics, CAHSD is presently implementing a medical care "screening tool" and policy requiring clients to be assessed by the nursing staff for their present engagement in ongoing care with a primary care provider. The policy requires that all new clients and ongoing clients are "screened" annually and a referral to their assigned Community Care physician is made, if they are Medicaid eligible, or a referral is made to a proximate primary care clinic with a flexible, non-fee, or sliding fee scale. The CAHSD nursing staff will ensure that the clients sign a release of information to the provider and follow-up to determine the appointment was kept.

For efficiency and access, CAHSD has made a concerted effort to place mental health satellite sites within public health units (PHU) and Federally Qualified Health Centers (FQHC). These unique settings provide easier primary care access to the chronically mentally ill based on the physical location of the clinic by reducing the stigma to accessing services and allowing for integration of physical and behavioral healthcare. All clinics provide assessments for emotional/behavioral/addictive disorders. Currently, CAHSD is co-located in 10 FQHCs and Public Health Units combined, and in two hospital-based clinics. We have taken steps to allow for a two-way information flow so that the medical and behavioral health information can be used by both provider agencies to support overall health and stability and assist in avoiding crisis and reliance on the emergency department.

Steps that CAHSD Has Taken to Remedy the Loss of Infrastructure

In 2006, Social Services Block Grant funds were provided to CAHSD to expand clinic capacity, create new, and expand existing mobile treatment teams, further decentralize our clinic based services to primary care settings (FQHCs and public health units) and schools, for the creation of new positions (social workers, physicians, social services counselors, pharmacy tech, LPNs, RNs, case managers and clerical to support adult MH clinical services expansion, mobile, crisis and satellite treatment teams) and for new contracted services. Although it was difficult to find and hire staff fast enough to make total use of all of the allocated dollars, CAHSD surpassed most areas of the state due to having created a community-wide service plan through the community collaborative, months before the funds were received. The agency having been established as a Title 38 Agency under the procurement code, can contract directly from its office, enabling it to cut down on bureaucracy and time loss. It is also not constrained by the legislative limit on staff positions through a Table of Organization, and so was able to rapidly hire needed staff. The 2008 budget was minimally reduced from the prior year as it was clear to the legislature and the Division of Administration that the newly created and expanded services and contracts were needed and being utilized based on the performance indicators collected and documenting the large and permanent increase in patients new to the area and utilizing the services. The following are selected new services developed and implemented post-Katrina to assist in improved stability of the mentally ill in this community:

Behavioral Health Crisis Avoidance and Continuum of Care

Nine critical components to a behavioral health crisis continuum of care were defined by the collaborative. Many of the components have already been funded and implemented; others still need funding. Several are being funded by CAHSD's ongoing operational budget, and some through a redesign of pre-existing services. These components include:

- Standardized screening and assessment tools & training,
- Access Service: Immediate clinic access,
- Interagency Services Coordination,
- Crisis Intervention Team: Specially trained law enforcement officers,
- Mobile & Assertive Community Treatment Team,
- Crisis Intervention Unit: A specialized Emergency Department (ED),
- Medical Case Management,
- Coordinated Referral to Treatment & Public Awareness, and
- Housing.

See below for further descriptions of a few of these components.

Access Service

This service targets individuals who present with symptoms of serious mental illness, (i.e., major depression, post-traumatic stress, anxiety disorders, mood disorders, schizophrenia) and/or alcoholism/addictions. This service front loads the system by allowing for rapid screening, assessment and treatment. However, due to the large numbers of people who contact CAHSD with all levels of need, it also serves as an important community service to the broader public by reducing waiting times for

screening, evaluation and referral for behavioral health services, and identifying and stabilizing people in crisis who would otherwise be directed to the emergency departments.

The following services are provided by the Access Service: phone and face to face screening for behavioral health problems including mental health; addictions and psychiatric evaluations; coordination of admissions to the CAHSD mental health or addictive disorders centers and/or referral to the appropriate community service. Clinic based psychiatric interventions are provided for those new clients seeking or requiring services, such as arranging hospitalization, detoxification services and placing clients on medications. The Access Service was effective in reducing the number of evacuees from the congregate sites who presented with behavioral health emergencies in the emergency department as well as in providing immediate appointments for patients who were referred from the emergency department to the CAHSD outpatient mental health centers. Within the CAHSD system, the Access Service acts as a referral point for all of the District's mental health, addiction and developmental disability services to the indigent and low income consumers residing in the greater Baton Rouge area.

Children's Services Outreach

The CAHSD intensified outreach efforts for children in the following ways: fast tracked treatment services at its two primary care clinics and in satellite facilities, at its expanded school-based sites (27), added access and social workers at some public health units and at federally qualified health clinics, created Children's Behavioral Health Disaster Mobile Teams serving the transitional living sites, and expanded major collaborative endeavors with other area agencies and organizations. One important new

service at the CAHSD is the child and adolescent behavioral health Children's Mobile Disaster Teams. Escalating stress from displacement issues and/or anxiety of coming storms, and other survivor issues have created the critical need for the new mobile behavioral health service teams. The CAHSD, using block grant funding, mobilized two teams conducting daily "rounds" in various temporary housing communities. The teams' schedules are designed to respond to referrals from area providers and from the CAHSD adult mobile team or by self referral. The Child and Adolescent Response Team, (CART) responds to crises that may include, but not be limited to, suicidal or homicidal thoughts, and out of control or threatening behavior to others or self. The specially trained behavioral health providers deliver the following services: assessment, stabilization, and respite care for up to seven days or until the crisis is resolved.

The CAHSD school-based behavioral health services, working with its collaborators, addressed the needs of more than 10,000 children and adolescents. Last year there were approximately 5000 evacuee students in the school systems supported by the agency, but that number now dropped to approximately 150 who continue to be enrolled in the Capitol region school districts. (Many no longer list New Orleans as their residence.) In addition, the CAHSD's Children's Services also collaborates with the new LSU Health Sciences Center Children's Mobile Medical Teams in North Baton Rouge. They are also working with children in the adjoining Baker School System.

Care for People with Mental Health Needs Not Meeting State's Criteria

It has long been well understood that within this community, there has been a dearth of referral sources for people not meeting the state's strict criteria for mental health services. This gap is being felt more intensely now due to the numbers of people

new to this area who had mental health needs prior to relocating, and those who have suffered through loss and trauma due to the storms Currently CAHSD is establishing contracts with local FQHCs to hire social workers to provide interventions to all clinic adults who currently need services but do not meet the state funded service's criteria for the seriously and chronically mentally ill. These social workers will be fully trained on when and how to make referrals to CAHSD services if the acuity warrants a higher level of care.

Crisis Intervention Unit (CIU) Product or Service

The collaborative developed a CIU for the Baton Rouge area to serve those individuals suffering from serious mental illness who present either to a District Community Mental Health Center, Addictive Disorders Clinic or are otherwise identified (by law enforcement, coroner, etc.) as experiencing an emergency behavioral health condition or crisis situation (e.g. the individual's need may be such that they require treatment to reduce the likelihood of death, harm to self or others, serious injury or deterioration of physical condition or a major setback in their condition or illness). Services will be provided to individuals who are in psychiatric crisis whose needs cannot be accommodated safely in less restrictive settings, and to stabilize the client and re-integrate him or her back into the community quickly. Services will include administering medication, counseling, referrals and linkage to ongoing services (inpatient/outpatient) and transportation of client and/or family members. They will also include redirection of adults presenting in psychiatric crisis into appropriate and safe services at the appropriate and least intensive level within a Comprehensive Behavioral Health Crisis Continuum of Care, thereby relieving the pressures on existing emergency

departments of both public and private hospitals in the seven parishes of the Capital District. This modular unit has not yet been established due to not having received the promised funding into the agency's budget.

Housing

Often homeless people with behavioral health concerns present at emergency departments if they are not aware of more appropriate means for accessing housing options. The impact of homelessness has had a significant impact on the Capitol region. In 2005 the survey and the application of HUD's formula for calculating the annual rate of homelessness indicated an estimated number of 890 homeless persons. The 2007 survey yielded a count of 1042, or an increase of 15%. In addition, 876 FEMA trailers are still occupied, though many are scheduled for de-commissioning in the near future. Additional families are still receiving rental subsidies for market housing. Given the income levels of these clients, many will enter the homeless population once subsidies end.

The CAHSD is newly contracting with the local Capital Area Homeless Alliance (CAAH) for housing and treatment for individuals with addictive disorders and/or those who have received a dual diagnosis of an addictive disorder and mental illness. This program serves 40 individuals annually and provides placement for up to three months per client, although a client's stay can be extended if circumstances warrant. Services include: case management, life skills, drug screens, treatment planning, individual, group and family counseling, co-occurring disorders treatment, transportation, education, and job training/services.

Within the region, an additional 50-75 transitional housing beds are under construction, and permanent supportive housing has increased from 302 beds in 2005 to 333 beds in 2007, with an additional 162 units currently under construction or in the development phase.

Recommendations of Ways to Improve Current Systems to Increase Availability and Access to Mental Health Services in the Wake of the Disaster

Emergency Preparedness Efforts

The Agency has placed emergency preparedness and response in the forefront and serves as the convener for behavioral health services in the Capitol region. The CAHSD has pledged leadership and collaboration by working with the Regional Incident Command Center team and utilizing the principles and practices of the National Incident Management System (NIMS), which assures safety and efficiency in response. As the lead agency for behavioral health locally, the CAHSD staff is planning and working with the Department of Health and Hospitals, Red Cross, Louisiana Capitol Area Volunteer Organizations Active in Disasters, and the seven parish Offices of Homeland Security and Emergency Preparedness. The CAHSD will provide staff for 12 hour shifts, 24 hours per day, 7 days per week at the Medical Special Needs Shelter on the LSU campus. The CAHSD will deploy pre-credentialed volunteers into the field as general shelters are opened. During emergency operations, the CAHSD will deploy multi-disciplinary teams to general sites determined to have need.

CAHSD acts as the crucial local convening agency and location, leads the network of providers, oversees the use of one brief screening/triage tool and one chart or EMR. It ensures that deployment utilizes multiple service delivery strategies/maintains

flexibility and targets services to special populations. This collaborative locally develops the intermediate and long term plans for implementation, and that an exit plan to normalize service access is developed at the onset of deployment. CAHSD also ensures that the public is communicated with as quickly as possible with reassuring statements, clear directions, and information on where help is available.

Louisiana Spirit Teams and the Stafford Act Inflexibility:

Capital Area Human Services District (CAHSD) began assisting non-medically needy evacuees across the community two days following the flooding of New Orleans by deploying teams of behavioral health and primary care providers, assisted by the intelligence on evacuee location gained by the Spirit teams. Demographics of inhabitants at particular sites were unknown for periods of time which impeded the deployment of needed services. I strongly recommend that these teams take deployment direction from the local mental health authority or lead, consistent with NIMS to ensure efficiency and effectiveness. Without the intelligence provided by the Spirit teams, more devastation would have occurred. However, after our teams benefited from being given client specific information, we were informed that this was not permitted and it was not until the lawyers intervened to note that since the teams received direction from CAHSD, the clients were actually ours, and so sharing of information was permitted. The Spirit teams must be able to make the referral, and not just give out contact information to people experiencing trauma and in need of an immediate intervention to ensure service access. There was no transportation available for many to come to the clinic to receive this emergency care.

Federal Formulary Needs to be Amended:

CAHSD's pharmacy served as the delivery and distribution point for our own and the large quantity of behavioral health medications and supplies donated by the pharmaceutical companies for evacuees in the region. Access to these medicines is crucial to maintaining stability and managing behaviors that will not be tolerated within the shelters. These medicines must become a part of the federal formulary, in the same way pharmaceuticals are provided for medical conditions. The formulary must also address the needs of people on methadone and pain management medications.

Addressing Facilities for Providers at Federally Provided Congregate Settings:

The lack of building space provided at the congregate settings forced limitations on the ability for the providers to deliver care because of confidentiality, personal privacy and the climate. Space was requested multiple times but was provided more than a year later. A building from which to deliver care on the premises is a requirement.

Transportation for Evacuees to Provider Facilities Needed:

The proximity of many of the non-commercial congregate sites to nearby permanent service delivery facilities is essential. However, the lack of transportation to those sites forced the dependency onto mobile delivery systems which was inefficient and fraught with complications such as placement/availability of medical records, transportation of the teams and their coordination at the sites. FEMA needs to establish the transportation to nearby services sites as a priority.

Most Pressing Needs in the Greater Baton Rouge Area's System of Care:

Recruitment of Psychiatrists

It is essential that the recruitment incentives for physicians in the Greater New Orleans area be available to the greater Baton Rouge area to enable the system to serve the evacuees who continue to live here and to use this as a stopping point for preparing to return home. Establishing the CIU and any other efforts for increasing capacity and decentralization are dependent on successful recruitment efforts.

Integration of Evacuees into the Community

There must be acknowledgement of the levels of ongoing need by the evacuees for housing, employment and transportation for self efficacy and integration within the community. Accessible, affordable housing and transportation must be a priority to the evacuee population, especially those with disabilities.

Expansion of Local Specialty Care Clinics

Access to specialists through the public specialty clinics is nearly unavailable with waiting times ranging from 10 to 20 weeks, and some clinics are not accepting new clients. It must be noted that a sub-population of evacuees will always need immediate and ongoing access to specialty care. Any long term relocation must make arrangements for capacity expansion to life sustaining care. Recruitment of medical specialists for life sustaining treatment is essential.

Conclusion

I want to thank this subcommittee for its attention to our needs in the greater Baton Rouge area and for the financial assistance provided the state over the past 1.5 years. I hope you can appreciate the level of commitment to immediate relief and long term

recovery that has been made by this community in terms of its dedication, innovation, restructuring and redesign of its services to meet and anticipate the needs of our new community members. Still, we have ongoing needs, especially for psychiatrists. Filling these existing positions is the true key for addressing capacity and the ongoing care and prevention of crises. Accessible and affordable housing is crucial to the stability and recovery of our new community members. I greatly appreciate the opportunity to testify today as well as your ongoing commitment to the greater Baton Rouge area's recovery.

Testimony of Kevin U. Stephens, Sr., M.D., J.D.
Director, New Orleans Health Department

United States Senate
Committee on Homeland Security and Governmental Affairs
Ad Hoc Subcommittee on Disaster Recovery
"Post-Catastrophe Crisis: Addressing the Dramatic Need and Scant Availability of Mental Health Care in the Gulf Coast"
Wednesday, October 31, 2007

To Chairwoman Mary Landrieu and Ranking Member Ted Stevens, distinguished members and guests of the Senate Ad Hoc Subcommittee on Disaster Recovery:

I am Dr. Kevin U. Stephens, Director of the Health Department for the City of New Orleans, a city that contributes greatly to the culture and commerce of this country, and a city that is still facing a crisis in the availability of mental health care after the worst natural and man-made catastrophic disaster to occur in the United States of America.

Thank you for providing this opportunity for us to share with the Subcommittee the urgent mental health care needs of our community. We appreciate your continued concern about our progress in rebuilding the mental health care delivery system for our citizens while we work diligently towards resolving our long term mental health policy issues.

Hurricane Katrina devastated our health infrastructure, flooding seven of the nine acute care hospitals in New Orleans and many other medical facilities. Some of that infrastructure has been replaced or is coming on line with financial assistance from federal and state sources. However, critical gaps remain in the medical safety net for our citizens. These gaps have contributed to a significant increase in mortality rates which I reported in the American Medical Association's Public Health Disaster Journal in May of 2007, and which have been corroborated by the State of Louisiana. They are also causing a particularly acute problem in mental health care.

This testimony focuses on three critical problems: the lack of an adequate number of available psychiatric hospital beds for citizens in our region; the ongoing challenge of recruiting and retaining mental health professionals; and the criminalization of mental health patients that system gaps are causing. I will outline what existed before Katrina, what is currently available, and what we must have to adequately serve our citizens with crisis mental health needs.

Prior to Hurricane Katrina, approximately 350 public and private psychiatric beds were available in New Orleans. These included capacity for 152 patients at the Medical Center of Louisiana – Charity campus (formerly Charity Hospital), 30 at New Orleans Adolescent Hospital (NOAH), and others at such places as the Veterans Affairs Hospital, Methodist Psychiatric Pavilion, DePaul Hospital, Touro Hospital, Bywater Hospital, Lakeland Hospital, and Community Care Hospital.

The beds at Charity were critical because they served our large population of uninsured and underinsured citizens. The facility included 92 inpatient beds, 20 dual diagnosis beds for those with psychiatric and substance abuse problems, and a critically important 40-person capacity Crisis Intervention Unit (CIU). This specialized unit allowed for individuals in psychiatric crisis to be observed for evaluation in a locked, safe environment. The Charity CIU served as the Single Point of Entry (SPOE) or central regional triage station. First responders were able to transfer care of mental health patients to a designated area for medical clearance and psychiatric evaluation. Its proximity to the Emergency Department (ED) provided the seamless and critical medical clearance needed for patients to be moved to the CIU for evaluation, treatment and release or admission for their mental illness as the case warranted. The CIU also accepted referrals from other facilities which depended on Charity to appropriately triage patients.

Currently, less than half the number of public and private mental health beds available in New Orleans before Katrina are open. This is a particularly acute problem regarding public hospital beds available to the uninsured. Of the original two Medical Center of Louisiana campuses - University and Charity - only University Hospital has reopened. It provides Emergency Department (ED) services and has 10 beds in a temporary mental health emergency room extension (MHERE) unit. University Hospital also has a 20-bed detox unit. The state has opened 52 beds at the New Orleans Adolescent Hospital (NOAH) and the DePaul sites, with plans to increase the number of beds at DePaul. It is also contracting for 100 additional detox beds. With 60 beds, the Orleans Parish Prison has the single largest facility for mentally ill patients in our region.

Thanks to the perseverance of Congress on Katrina-related health issues, the recent hearing of the House Energy and Commerce Committee, and the action of Secretary Leavitt, the New Orleans area received $100 million DRA dollars for primary and mental health services. Since these funds were just distributed to community providers several weeks ago, it is too early for us to determine their impact on mental health, but we are confident that these resources along with others will have a tremendous positive impact on the availability of out patient mental health services in New Orleans. However, this funding will not increase the number of inpatient psychiatric beds.

We are grateful for all of the efforts of the Medical Center of Louisiana, the regional and private hospitals, and the individual medical professionals who are working diligently to rebuild the mental health infrastructure and provide increased services. The need is tremendous and growing, not just because of a steady stream of people returning home and new people coming to be a part of this community, but because of the increasing prevalence of mental illness since the storm.

Recent reports have shown that there is an increase in the prevalence of serious mental illness among New Orleans residents since Hurricane Katrina. Witnesses from the next panel, Dr. Ronald Kessler, Harvard Professor of Health Care Policy and Chairman of the Hurricane Katrina Community Advisory Group, as well as Dr. Howard Osofsky,

Chairman of the LSU Health Sciences Center Psychiatry Department, can attest to this growing problem. Experiences of our police and Emergency Medical Services (EMS) staff also support these findings. We average 190 police calls per month from our 911 call log for serious mental illness or threat of suicide. Our EMS Department averages one call per day of suicide attempt, bizarre behavior or actual suicide.

The City of New Orleans has three immediate mental health needs: a centrally located Crisis Intervention Unit (CIU) in downtown New Orleans with a 40-person capacity; further assistance in retaining and recruiting health care professionals; and a Criminal Justice Diversion Program for citizens with psychiatric and substance abuse issues.

The lack of a CIU in the area is causing a crisis in the first responder and hospital systems. The 10-bed MHERE at University does not accept referrals from other hospitals; it does not serve as a single point of entry for mental health patients in the region; and does not provide law enforcement with expedited crisis system access. Ambulances now sometimes travel long distances to follow the regional hospital Emergency Department (ED) rotation set up after the disaster and frequently are backed up for hundreds of hours per month waiting to offload patients. That wait is often exacerbated because ED beds are filled with uninsured mental health patients who cannot get triaged into appropriate mental health care units. The City of New Orleans EMS director estimates this back up has cost the city $1 million in personnel costs and unbilled revenue over the last six months. It also threatens overall emergency response capacity. Police officers also are severely impacted by this problem. They must respond in pairs to mental health emergencies and must also follow the rotation. They log between 400 and 500 hours per month in "start to finish" time transporting patients in crisis and waiting with them at area hospitals to be evaluated.

Since no hospital is equipped with a CIU for appropriate stabilization, observation, and diagnosis of psychiatric emergencies, nor with adequate in-patient beds, there is a revolving door for those who cannot afford private care. Though some patients are held in EDs for long periods of time waiting for available psychiatric beds in the region or elsewhere in the state, others, some unstable and potentially violent, are examined for urgent "medical needs" and then released. The cycle has worsened in the past six months. Police officers had to spend a record 534 hours in July transporting and waiting with mentally ill persons instead of handling traditional law enforcement activities. They experienced the longest "start to finish" time to date with one case in July: 4½ hours for the team of two - the equivalent of one full nine hour officer day. Many of these calls were to handle "disturbances" caused by people with untreated mental illness or drug addiction who perpetuate the cycle of quick ED release, and are frequently jailed on municipal charges.

A centrally located CIU in downtown New Orleans with a 40-person capacity will ensure that patients receive more appropriate care for their mental illnesses; it will relieve the back-up at area hospital EDs, and cut travel and wait time for NOPD and EMS staff.

Additional support to recruit and retain mental health professionals is a second critical need. We are grateful for the financial resources which have been made available to our

state and region for this purpose, but there is still an ongoing crisis. For example, the Executive Director of the Metropolitan Human Service District, which provides publicly-funded community programs and services related to out-patient mental health, developmental disabilities and addictive disorders, has said that agency has a shortage of mental health professionals that is hampering their ability to bring funded out-patient mental health programs on line. We thank the Acting Surgeon General who is currently working with us to send temporary mental health professional assistance while we work on long term human resource infrastructure needs.

Lastly, we must create a system that does not criminalize mentally ill citizens who go in and out of a revolving jail door due to lack of services. A Criminal Justice Diversion Program for citizens with psychiatric and substance abuse issues will provide a wrap-around network of forensic psychiatric, social service and housing assistance to the mentally ill. These services will reduce crime and recidivism among citizens with mental illness and substance abuse. Components of this program include: a Forensic Assertive Community Treatment (FACT) Team to stabilize and assist released prisoners with follow up services and monitoring; a forensic supervised housing program; and expanded treatment resources at both Orleans Parish Prison and Mental Health/Drug Court. Together these proven program elements will provide appropriate care for mentally ill citizens, save police time spent on minor offenses, reduce the overcrowding in EDs, and improve the quality of life for all citizens of New Orleans.

In addition to these key funding needs, we also have recommendations for legislative changes to improve access to mental health services in the case of future catastrophic disasters.

The Stafford Act provides significant resources for crisis counseling after major disasters. The act, however, does not provide for psychiatric services or funding for prescription drugs. Many of our uninsured citizens could not afford the medications or the services they needed after the storm. The systems that might have been able to assist them before Katrina were damaged and inadequate. This situation added to the suffering of many citizens and to increased pressure on first responders handling mental health cases.

The lack of portability of Medicaid from state to state also must be addressed to improve access to health and mental health care following a disaster. States should be required to give full faith and credit to the evacuating state's Medicaid program for the time of the declared emergency. This is critical for mental health patients, as well as those with other physical illnesses.

Thank you for allowing me to speak with you today on the status of our mental health recovery and the challenges we face. We thank you, Senators Landrieu and Stevens, your Subcommittee, as well as the Louisiana delegation and other members of Congress, for your continued support as we rebuild our city and region. Though we still face a historic crisis, we are hopeful that with your assistance, we can solve the remaining problems and build a better and stronger community for everyone.

Attachment A

Police Response to Mental Health Calls*
January – August 2007

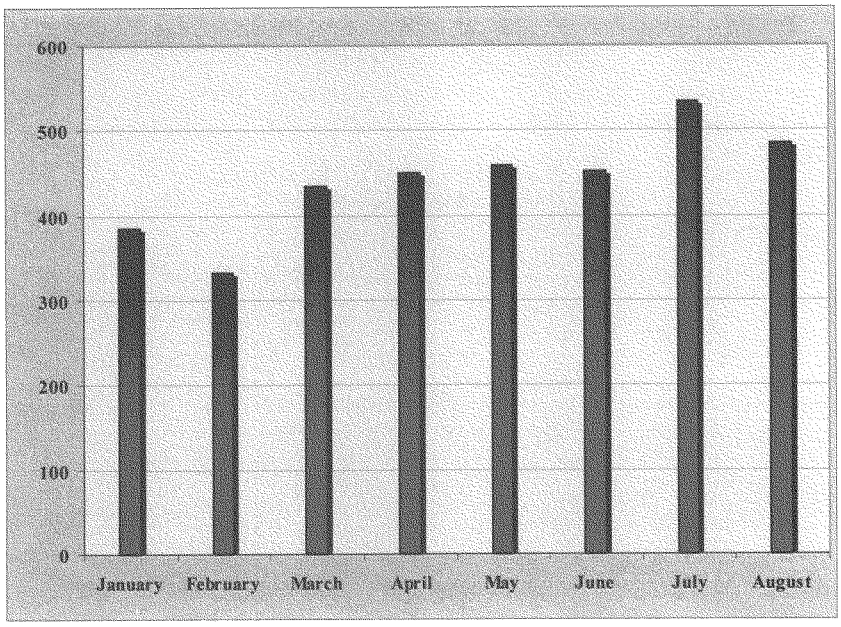
Month 2007	Mental Health Calls to NOPD (2 NOPD officers respond per call)	Average Time for NOPD mental health call from start to finish	Longest wait time	Estimated hours per month of police time taken away from other traditional law enforcement activities
Jan	196	59.1	n/a	385 hours
Feb	167	60	n/a	334 hours
Mar	207	63	n/a	435 hours
April	200	67.5 minutes	2.5 hours	450 hours
May	194	71 minutes	2.25 hours	459 hours
June	191	71 minutes	2.5 hours	452 hours
July	208	77 minutes	4.5 hours	534 hours
August	211	69 minutes	35 hours	485 hours

* Source: James Arey, Commander, NOPD Crisis Negotiation Team, City of New Orleans

Attachment B

Estimated hours of police hours spent from "start to finish" on mental health calls*

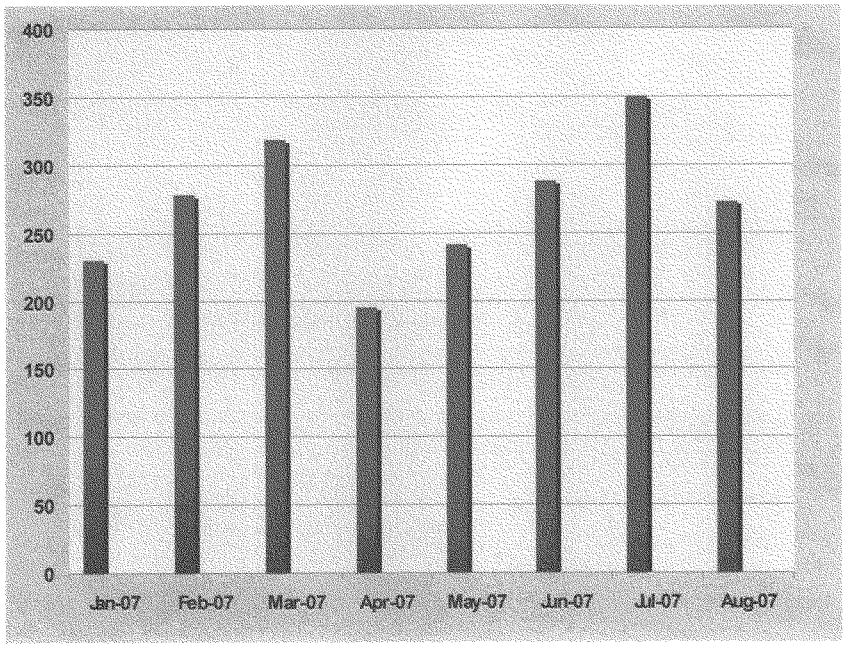
January – August 2007



* Source: James Arey, Commander, NOPD Crisis Negotiation Team, City of New Orleans

Attachment C

Real Wall Time EMS: Total hours of EMS wait time at all hospitals*
January – August 2007



* Source: Dr. Jullette M. Saussy, Director of EMS, City of New Orleans

Testimony of
Ronald C. Kessler, Ph.D.
Professor of Healthcare Policy
Harvard Medical School
Before the US Senate
Committee on Homeland Security and Governmental Affairs
Subcommittee on Disaster Recovery
October 31, 2007

Madam Chair and Members of the Subcommittee, I am Ronald Kessler, Professor of Healthcare Policy at Harvard Medical School and Principal Investigator of "The Hurricane Katrina Community Advisory Group (CAG) study." The CAG study consists of a series of community surveys carried out with a representative sample of people who were pre-hurricane residents of the areas affected by Hurricane Katrina. The purpose of the surveys is to track the mental health and well-being of the people who lived in the parts of Alabama, Louisiana, and Mississippi that were directly affected by Hurricane Katrina.

These surveys and our analysis of the survey results are funded by the National Institute of Mental Health with supplemental support from the Federal Emergency Management Agency (FEMA) and the Assistant Secretary for Planning and Evaluation, Department of Health and Human Services. The funders had no role in the conduct of the study, in the collection, management, analysis, or interpretation of the data, or in the preparation, review, or approval of the following remarks.

I am pleased to have an opportunity to provide an overview of our findings today. The surveys we have completed and analyzed to date include an initial survey administered 5-8 months after Katrina to a representative sample of 1043 people who were pre-hurricane residents of the areas affected by Katrina and a follow-up survey of these same people approximately one year later.

Before turning to the results, I want to acknowledge the critical assistance of the American Red Cross (ARC), which allowed us to sample from their master list of over 1.4 million families that applied for ARC assistance after Katrina, and of FEMA, which similarly allowed us to sample from their master list of over 2 million families that applied to them for post-Katrina assistance. In the absence of these lists, it would have been impossible to carry out our surveys.

In addition to the ARC and FEMA lists, we used random digit dialing to find and interview people who did not apply for ARC or FEMA assistance, so as not to bias the sample by focusing only on the people who were most adversely affected by the hurricane. Bell South was of great assistance to us in this effort, as they made it possible for evacuees who were no longer living at their pre-Katrina addresses to forward their pre-hurricane land line phone numbers to new residences throughout the country. This service was critical to us in tracing evacuees.

We also made use of Census Bureau data on the demographic composition of the affected area in the 2000 Census of the population in order to weight our survey data to be representative of the pre-hurricane population on major socio-demographic variables. Importantly, as our sample included both pre-hurricane residents who continued to live in the affected area after the storm as well as those who relocated elsewhere in the country, we also needed to adjust for differential geographic relocation. The Claritas market research company was critical in this effort, as they generated and provided at no cost estimates of differential geographic mobility across the affected area that we used in calibrating our data.

Our baseline survey estimated that 13.8% of respondents met criteria for the SAMHSA definition of a Serious Mental Illness (SMI) and that an additional 21.3% met criteria for a less severe mental disorder according to the definitions and criteria of the American Psychiatric

Association's DSM-IV diagnostic system (American Psychiatric Association 1994). These estimates were roughly twice as high as estimates obtained using the same measures in a sample of the same Census Region several years before the hurricane (Kessler et al. 2005). Post-hurricane prevalence estimates varied by area, with nearly half the pre-hurricane residents of the New Orleans Metropolitan Area screening positive for a DSM-IV anxiety-mood disorder compared to one-fourth of the pre-hurricane residents of the other areas affected by Katrina. Some 30% of the survey respondents from New Orleans Metro and 12% of those from the remainder of the hurricane area were estimated to have post-traumatic stress disorder (PTSD) at the time of the baseline survey (Kessler et al. 2006).

The socio-demographic correlates of these disorders were largely the same in the post-Katrina survey as in the survey carried out several years earlier. This suggests that the adverse mental health effects of Hurricane Katrina were equally distributed across broad segments of the population.

At the same time, our baseline survey found that suicidal ideation and plans among people with mental illness were significantly *lower* in the post-Katrina survey than in the survey carried out several years before the hurricane (0.6% vs. 8.4%, for ideation; 0.2% vs. 3.6% for plans). These lower rates of suicidality were strongly related to an increased sense of meaning and purpose in life and to reports of discovering new inner strength that people reported not knowing they had prior to the hurricane. These sorts of positive responses have been found after previous disasters. Our results suggest that they were protective against suicidality. In other words, in the midst of the understandable sadness about the losses that so many people experienced and the anxieties about the uncertainties of the future, there was a core of

psychological strength that was sustaining people during the time we carried out our baseline survey.

Much of this psychological strength was rooted in a sense of optimism about the future: the sense that we're all in this together, that we're going to tackle the problems of recovery together, and that we're going to bounce back and rebuild our lives. As it happened, this optimism was unrealistic in light of the enormity of the infrastructure damage caused by Katrina. My colleagues and I were concerned when we originally discovered this pattern in the data that a mental health crisis might be looming behind these short-term positive feelings because of the unrealistic nature of the optimism. The short-term psychological adrenaline created by the optimism, we felt, would not be sufficient to sustain people emotionally if practical problems persisted for a long period of time.

The general wisdom in the mental health field is that this sort of initial optimism wears down within a year or so. Practical recovery efforts after most disasters are either complete or well on the way to completion within a year. As a result, the typical finding in most surveys of PTSD and other post-disaster mental illness is that many cases recover within a period of months, that the majority recover within a year, and that the vast majority recover within two years. People who do not recover within two years typically have a chronic course that often lasts for many years. Our hope was that we would find evidence of widespread recovery from hurricane-related mental disorders in the second survey, which we carried out a year after the baseline survey, but we were concerned that this would not be the case and that, in fact, prevalence of mental illness might increase rather than decrease

About half (48.3%) of the people with pre-hurricane mental disorders and one-sixth (18.5%) of those with new mental disorders reported in our baseline survey that they received

some kind of treatment for emotional problems since the hurricane (Wang et al. 2006). Most were treated in the general medical sector and received medication but not psychotherapy. While psychiatrists saw a small proportion of patients overall (17.5%), they provided treatment to nearly half (48.1%) of the patients with pre-hurricane mental disorders who experienced disruption of treatment due to the hurricane. Self-reported reasons for failing to seek treatment among new-onset cases largely involved low perceived need, while reasons for failing to continue treatment among pre-existing cases largely involved objective barriers to treatment, such as financial difficulties, lack of availability of treatment providers, and lack of transportation.

As it turned out, the estimated prevalence of any anxiety-mood disorder did not change significantly between the baseline survey and the follow-up survey, although the trend was positive (from 30.7% to 33.9%). The estimated prevalence of SMI, in comparison, was significantly higher in the follow-up survey than baseline survey in the total sample (14.0% vs. 10.9%) as well as in the sub-sample of respondents who are not from the New Orleans Metropolitan Area (13.2% vs. 9.4%). This trend was not significant, in comparison, in the New Orleans Metro sub-sample (16.9% vs. 16.5%). The estimated prevalence of PTSD roughly doubled in the follow-up survey compared to the baseline survey in the sub-sample exclusive of New Orleans Metro (20.0% vs. 11.8%), but did not change in the New Orleans Metro sub-sample (24.1% vs. 25.9%). The prevalence of suicidality, finally, was significantly higher in the follow-up than baseline survey both with regard to suicidal ideation (6.4% vs. 2.8%) and suicide plans (0.8% vs. 0.2%). These trends, unlike those for SMI and PTSD, were statistically significant and relatively comparable in magnitude in both the New Orleans Metro sub-sample and in the remainder of the sample.

We cross-classified baseline and follow-up diagnoses in order to study the composition of the diagnoses with significant trends. The majority of respondents classified as having SMI at follow-up either already had SMI at baseline (39.9%) or progressed from baseline less severe mental illness (31.6%) to SMI, while the remaining 28.5% represent delayed onsets (i.e., no mental illness at baseline). A similar pattern was found for PTSD, where the majority of follow-up cases either already had PTSD at baseline (41.7%) or progressed from other baseline mental disorders to PTSD (27.1%), while the remaining 31.2% were delayed onsets (i.e., no mental illness at baseline). The proportions of delayed onsets were comparable for suicidal ideation (24.1%) and somewhat higher for suicide plans (46.6%), while the proportions with persistence (16.6% and 26.0% for ideation and plans, respectively) were lower than for PTSD. The proportions that represent progressions (i.e., from baseline mental illness without suicidality to the subsequent onset of suicidality) were higher for suicidal ideation (59.3%) than for PTSD and comparable for suicide plans (27.4%) to PTSD.

It is noteworthy that the majority of respondents with baseline SMI (51.1%) continued to have SMI at follow-up, while 30.8% improved (i.e., were classified as having less severe mental illness at follow-up) and only a relatively small minority (18.1%) recovered (i.e., no longer met criteria for an anxiety-mood disorders). In the case of PTSD, 70.4% of baseline cases continued to have PTSD at follow-up, while an additional 10.3% were classified as having some other anxiety-mood disorder but not PTSD at follow-up, and only 19.3% recovered. Persistence was somewhat lower for suicidal ideation (37.9%), but much higher for plans (69.8%). Improvement, in comparison, was comparatively high for suicidal ideation (49.9%), but not for suicide plans (16.0%). Recovery (i.e., no mental illness and no suicidality at follow-up), finally, was relatively uncommon for either suicidal ideation (12.2%) or plans (18.0%).

As noted above, we would normally expect to find lower proportions of the population to have mental illness and suicidality this long after a disaster. That we not only failed to find decreases of this sort, and actually found a number of *increases*, is an indication of the more severe adverse emotional effects of Hurricane Katrina than more typical disasters. Socio-demographic variables were generally not significant predictors of trends in anxiety-mood disorders or suicidality in the two surveys, indicating that these adverse effects were widespread in the population.

One possible explanation for the significant increases in the prevalence estimates of anxiety-mood disorders and suicidality is that hurricane-related stresses might have increased over time due to the slow pace of recovery efforts. As it turns out, though, this is not the case. A significantly lower proportion of respondents reported current exposure to hurricane-related stress in the follow-up survey (57.5%) than in the baseline survey (91.7%). This significant decrease was found both in the New Orleans Metro sub-sample (97.9% vs. 78.3%) and in the remainder of the sample (90.0% vs. 51.7%). It is noteworthy, in light of the fact that the increases in SMI and PTSD were found only in the sub-sample exclusive of the New Orleans Metro Area, that the decrease in hurricane-related stress was less pronounced in New Orleans Metro than the remainder of the sample. Indeed, the prevalence of stress in the follow-up survey was significantly higher in the New Orleans Metro sub-sample than in the remainder of the sample (78.3% vs. 51.7%). This means that higher levels of residual hurricane-related stress cannot explain the fact that SMI and PTSD increased over time only among respondents not from the New Orleans Metro Area.

Another possibility is that the psychological effects of hurricane-related stresses increased over time even though the magnitude of the stresses themselves decreased. A

comparison of the cross-sectional associations between hurricane-related stresses and the outcomes finds some superficial support for this possibility with regard to SMI, as the odds-ratios linking stress with SMI in the follow-up survey are consistently larger than the parallel odds-ratios in the baseline survey. However, these differences are not statistically significant ($\chi^2_4 = 8.1$, $p = .09$). Furthermore, the pattern is not less pronounced in the New Orleans Metro sub-sample than in the remainder of the sample ($\chi^2_4 = 5.1$, $p = .28$; detailed results available on request). This means that heightened reactivity to hurricane-related stress cannot explain the fact that the significant increase in SMI is confined to respondents in the sub-sample exclusive of the New Orleans Metro Area. Furthermore, the pattern of higher odds-ratios at follow-up than baseline does not hold either for PTSD or for suicidal ideation. In the case of suicidal ideation, the rarity of the outcome required the stress measures to be dichotomized (severe stress vs. all others) to stabilize parameter estimates.

The model was expanded to study the effects of hurricane-related stress on trends in SMI, PTSD, and suicidal ideation. This was done by adding a control for the baseline value of the outcome to the prediction equation along with measures of stress assessed in both surveys. Baseline stress was not a significant predictor of trends in either SMI ($\chi^2_4 = 4.3$, $p = .37$) or PTSD ($\chi^2_4 = 8.0$, $p = .09$), while stress at follow-up was significant in both equations ($\chi^2_4 = 31.5$, $p < .001$; $\chi^2_4 = 13.0$, $p = .011$). No significant interactions were found between baseline stress and follow-up stress or between sub-sample (i.e., New Orleans Metro vs. the remainder of the sample) and either measure of stress. (Detailed results available on request.) Based on these results, the final model for trends in SMI and PTSD included stress in the follow-up sample as the only key predictor. (Table 6) Stress exposure in this model is associated with substantial variation in both SMI and PTSD at follow-up, with odds-ratios for serious-severe stress in the

range 35.8-42.2 for SMI and 12.8-20.3 for PTSD after controlling for baseline SMI and socio-demographics.

The situation was different for suicidality, as baseline stress and stress at follow-up both predicted trends. If we think of these associations as causal, the proportion of suicidality ideation associated with high hurricane-related stress is 61.6%.

Considering these results broadly, the prevalence estimates of anxiety-mood disorders both at baseline and in the follow-up survey in the New Orleans Metro sub-sample are considerably higher than those found in previous surveys of mental illness after natural disasters in the US, while the prevalence estimates in the remainder of the sample are comparable to those in previous studies (Norris et al. 2002; Galea, Nandi & Vlahov 2005). Previous reviews have noted that comparisons of prevalence estimates across disasters is challenging due to the wide range of disaster experiences to which people in disasters are exposed. However, broadly speaking, the higher prevalence estimates of anxiety-mood disorders in the New Orleans Metro sub-sample are consistent with the results of studies that considered persons in highly disaster affected areas (Canino et al. 1990; David et al. 1996), while the lower prevalence estimates in the remainder of the sample are consistent with the results of previous studies in areas with lower disaster impact (Caldera et al. 2001; Kohn et al. 2005).

The significant increase in prevalence estimates of SMI, PTSD, and suicidal ideation-plans are different from the patterns found in other longitudinal surveys of mental illness after natural disasters, where, as noted above, prevalence typically decreases (McFarlane 1988; Carr et al. 1997; Norris et al. 1999). Even in cases where no decrease has been found in previous surveys, the typical pattern has been for prevalence to remain stable for some time rather than to increase significantly in the way in did in our survey (Norris et al. 1999).

The fact that the increases in SMI and PTSD are confined to respondents not from the New Orleans Metro Area is difficult to interpret in light of the higher levels of hurricane-related stress both at baseline and at follow-up in the New Orleans Metro sub-sample. It is possible to speculate post hoc that the much greater media attention directed at New Orleans than the other areas affected by Katrina might have led to a greater sense of abandonment among affected people not from the New Orleans Metro Area, but we have no data to evaluate this interpretation. Another possibility is that the increases in SMI, PTSD, and suicidality are partly due to increases in stressors that might only be indirectly linked to the hurricane. This possibility is consistent with evidence from several longitudinal studies that low-intensity ongoing stressors significantly predict long-term PTSD, presumably because these nagging stressors erode the resistance resources that would otherwise promote recovery (Adams & Boscarino 2006; Galea et al. in press). However, it is unclear why such stressors might be more prevalent among people not from the New Orleans Metro Area than from New Orleans Metro. Finally, there is the possibility that psychological vulnerability to such stressors is higher among people not from the New Orleans Metro Area and that this heightened vulnerability explains why the increases in SMI and PTSD documented here were confined to this sub-sample.

We have not yet analyzed the data regarding treatment in the follow-up survey, so we have no information at this time about patterns of change in treatment after the baseline survey.

These results lead to four conclusions. First, continuing hurricane-related stress (such as in finances, employment, and housing) clearly is playing a critical role in the high prevalence of hurricane-related anxiety-mood disorders in this population.

Second, the fact that the associations between these stresses and the mental health outcomes considered here were stronger among affected people from areas other than the New

Orleans Metro Area suggests that undetermined stress and-or vulnerability factors are present among people from other areas New Orleans Metro that should lead policy makers to focus attention on the needs of these people and not to concentrate only on New Orleans.

Third, the observation that these adverse effects are only weakly related to socio-demographic variables means that efforts to address the needs for mental health treatment in this population need to deal with all segments of the population rather than target only specific high-risk population segments.

Fourth, the fact that hurricane-related stressors were still quite common in the population at the time of our follow-up assessment, which occurred nearly two years after the hurricane, and that high proportions of the outcomes at follow-up were attributable to these continuing stresses, suggests that efforts to address the problem of increased mental illness and suicidal ideation-plans among people affected by Hurricane Katrina need to address continuing needs for practical and logistical assistance to deal with the high remaining levels of stress. This may be particularly challenging when it comes to helping pre-hurricane residents of the affected areas who are now living elsewhere in the country, but it is especially important to reach these geographically displaced people because of their comparatively high risk of SMI.

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Testimony to the Ad Hoc Subcommittee on Disaster Recovery:

Katrina's Children: Mental Health Considerations in the Aftermath of Disaster

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October 31, 2007

Thank you for inviting me to testify before the Ad Hoc Subcommittee on Disaster Recovery. This testimony is not about pointing fingers – rather, it is about the real problems of real children and adolescents in New Orleans. If you wish, I can provide data on overall problems related to infrastructure and delivery of mental health services in Metropolitan New Orleans. I can also provide data on services provided through Louisiana Spirit and the work of Louisiana State University Health Sciences Center Department of Psychiatry faculty with FEMA and SAMHSA since Hurricane Katrina. However, today, I want to focus on the dilemma the children and adolescents of the Greater New Orleans area face in having mental health service needs met. The resources and funding provided do not adequately address the mental health treatment service needs of

the tens of thousands of children traumatized by Hurricane Katrina and further traumatized by the continuing stresses due to the slow recovery. The Stafford Disaster Relief Act Crisis Counseling Program, while helpful, prohibits mental health treatment. Children and adolescents, while resilient and pleased to be back home, are in desperate need of proven outreach clinical evaluation and treatment services. Collaborative efforts of LSUHSC trauma trained mental health professionals and returning school districts have demonstrated the importance of integrating mental health services in school and preschool settings to provide support and needed therapeutic help in a destigmatized manner.

The devastation to children and families resulting from the displacement and significant losses of all that was familiar as a result of Hurricane Katrina provides a unique perspective on the effects of this disaster. Our data gathered since the storm demonstrates the widespread nature of this disaster which personally affected the majority of children assessed. Over one year after Hurricane Katrina, during the 2006-2007 school year, well over half of the children assessed in the most heavily devastated Orleans, Plaquemines, and St. Bernard parishes had still not returned to their pre-storm homes.

Over 40% still met the cut-off for mental health referral indicating the chronic effect of this disaster on children and adolescents. We are receiving many and increasing numbers of referrals and requests for mental health evaluation and services from school personnel and parents. The students referred are having severe school difficulties--academic, behavioral, emotional, and risk-taking. The scientific consensus is that we cannot leave these cries for help unanswered. Without adequate mental health services, we can count on these children having increased incidences of posttraumatic stress disorder and depression, and decreased ability to meet their potential. We strongly believe, and available evidence has proven, that these negative outcomes can be prevented if adequate mental health evaluation, diagnosis, and services can be provided.

Some lessons we have learned: 1) It is perfectly clear that we need a better national plan for children and families following disasters that can be funded at the federal level and implemented and channeled at the local level; 2) The Stafford Disaster Relief Act should be revised to allow for needed mental health evaluation and treatment services; 3) Mental health services after a major disaster need to be funded on a long term basis not only to address current

problems, but to prevent serious mental health and behavioral sequelae; 4) If volunteers are to be used effectively, they need to be trained in trauma focused services for children before being deployed; 5) Mental health services have been and should be increasingly provided in child and family friendly settings such as schools and preschools.

In closing, we very much appreciate your efforts to help these children and families. We beseech you that if there are resources and discretionary funds available from FEMA and SAMHSA, these funds should be provided immediately for evidence-based mental health services for these struggling children, adolescents and families who so desperately need them. It is clear that this funding is needed now to prevent irreparable damage to children traumatized by Hurricane Katrina. Your leadership can make all the difference.

I will be pleased to provide data and examples from our work if any one of you so desires. Thank you for your attention to this important matter.

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Ad Hoc Subcommittee on Disaster Recovery
Committee on Homeland Security and Governmental Affairs

"Post-Catastrophe Crisis: Addressing the Dramatic Need and Scant Availability of Mental Health Care in the Gulf Coast"
October 31, 2007

Madam Chair and members of the subcommittee, thank you for inviting me here today. I am Dr. Mark H. Townsend, Professor of Psychiatry at the Louisiana State University Health Sciences Center in New Orleans, and since July 1, the director of psychiatry for the Medical Center of Louisiana at New Orleans (MCLNO), which is a part of the LSU Hospitals' Health Care Services Division. I am honored and grateful to be able to speak to you and the Committee about our achievements and challenges. Our medical center consists of the newly renovated LSU interim hospital as well as comprehensive and specialty clinics throughout the region. The department is composed of faculty from the psychiatry departments of both the LSU Health Sciences Center, chaired by Dr. Howard Osofsky, and Tulane University, chaired by Dr. Dan Winstead. We have been given the mandate to provide psychiatric treatment to a city that had survived centuries of yellow fever, war, and numerous other hurricanes, only to be—in part—irreparably flooded in August of 2005.

One such flooded place was Charity Hospital, since 1736, the second-oldest continually operating public hospital in the United States, which is now closed. Since 1996, I had taught medical students and residents at Charity in my position as inpatient unit director. While Charity at one time had 2,500 beds, psychiatry staffed 92 at the time of the storm. Although with relatively fewer beds than in the past, Charity's emergency department experienced an enormous volume. Approximately 600 emergency room patients were referred every month for psychiatric treatment to Charity's Crisis Intervention Unit, and most of them were treated and successfully returned to the community within 24 hours.

I am keenly and personally aware of what has been lost, and am working with the LSU Hospitals administration to preserve the best aspects of psychiatric treatment at Charity while we all transition to a new and more flexible system of care. We must be flexible, because we have lost much of the "bricks and mortar" that housed the previous system. We must take new approaches, because patients are best treated and stabilized in the community, preserving their families and maintaining employment, so that they do not present to emergency departments or be admitted to hospitals. We must also identify at-risk youth, and educate employers and families about psychiatric illness, to prevent those with psychiatric illness from being identified and literally treated as criminals. If arrested, we must divert them from prison and address their psychiatric medical illness.

Hurricane Katrina devastated New Orleans on August 29th, 2005. On September 2nd, the last psychiatric patients were evacuated from the Charity Hospital campus of the medical center. Our patients had endured five days of extremely difficult circumstances as they awaited rescue from the dark and flooded hospital. Eventually, they were placed on military trucks and evacuated to Pineville, Louisiana, 200 miles to the northwest.
Two years later, Charity Hospital and its 92 psychiatric beds remain closed. The medical center now directs medical and surgical treatment from its smaller, sister University Hospital. University Hospital has been renovated and designated an LSU Hospitals interim facility. Comprehensive psychiatric services have been planned for LSU's new teaching hospital, expected to open in five years. Today, the region lacks most of its pre-storm inpatient psychiatric beds, even though its people have not only largely returned, but also have demonstrated persistently elevated rates of mental illness. New Orleans had more than 300 licensed beds prior to the storm.

Good progress, however, is being made in the restoration of mental health services. In September of 2007, the LSU interim hospital opened new psychiatric inpatient units in Uptown New Orleans, in a leased building on the campus of the former DePaul Hospital. The hospital, owned by the Daughters of Charity of St. Vincent DePaul, did not reopen after the storm and was sold to nearby Children's Hospital. DePaul had served the region for more than 100 years by providing a full range of psychiatric services for adults and children. LSU's units are in the iconic Seton Building—with its copper cupola, enormous windows, and long, wide hallways—and provide acute co-occurring, geriatric, and general adult programs. We hope to open approximately 40 beds there, an extremely positive development in a city that, as of this writing, has less than a third of its former inpatient capacity. At LSU-DePaul, we are again working with faculty from the Tulane Department of Psychiatry and Neurology, our partners at Charity for many years.

We are addressing other critical needs, as well. The LSU interim hospital has created an emergency department extension for psychiatry patients, treating more than 200 patients monthly—a number that continues to increase. The LSU psychiatry outpatient clinic, in conjunction with the LSU Health Sciences 's Department of Psychiatry—chaired by Dr. Osofsky—returned very early, in October of 2005, while much of the city was under mandatory quarantine. Recent federal grants, including the much-needed Primary Care Access and Stabilization Grant, have allowed LSU to expand both its office space and scope of service, which includes culturally sensitive programs for patients of all ages. Twenty medical detoxification beds have opened downtown at the interim hospital, which are a key resource, given the prevalence of alcohol and substance abuse disorders.

Both the LSU and Tulane medical schools, and their departments of psychiatry, have withstood great challenges and demonstrated tremendous resiliency in order to be present in New Orleans today. That we are here at all is remarkable. However, it is our institutions' duty and privilege to address New Orleans' mental health needs while educating future physicians about the effectiveness of psychiatric treatment. With its new and growing hospitals and clinics, LSU is more than able to provide top-quality psychiatric education. However, the region itself continues to lack key pieces of public health infrastructure, such as diversion and respite beds, partial hospitals and assertive

community treatment teams, and supportive housing. We must all continue to advocate on behalf of those who need these services.

In summary, much progress has been made in restoring psychiatric infrastructure in New Orleans after Katrina. The next steps are even more complex. Charity's CIU was able to treat people so efficiently because it was well staffed and the community had sufficient inpatient, respite, step-down, and group home beds to so that patients could leave the CIU within 24 hours. More mental health professionals—psychiatrists, psychologists, social workers, rehabilitation counselors, recreation therapists—must be attracted to the region and resume clinical practice. Community services must be dramatically increased so that crises can be defused within the neighborhoods, not the emergency rooms. Criminal justice diversion programs must be developed for the humane treatment of individuals with psychiatric illness whose behavioral symptoms lead to arrest.

I want to again express my sincere thanks for allowing me to speak with the Committee about our progress and our challenges. I am grateful for the assistance you have already provided, and I look forward to assisting you with the work yet to come.

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Trends in mental illness and suicidality after Hurricane Katrina

Running title: Mental illness and suicidality after Hurricane Katrina

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Key words: Anxiety disorder, epidemiology, mood disorder, natural disaster, post-traumatic stress disorder (PTSD)

ABSTRACT

A representative sample of 815 pre-hurricane residents of the areas affected by Hurricane Katrina was interviewed 5-8 months after the hurricane and again one year later as the Hurricane Katrina Community Advisory Group (CAG). The follow-up survey was carried out to study patterns-correlates of recovery from hurricane-related post-traumatic stress disorder (PTSD), broader anxiety-mood disorders, and suicidality. The TSQ screening scale of PTSD and the K6 screening scale of anxiety-mood disorders were used to generate DSM-IV prevalence estimates. Contrary to results in other disaster studies, where post-disaster mental disorder typically decreases with time, prevalence increased significantly in the CAG for PTSD (20.9% vs. 14.9% at baseline), serious mental illness (SMI; 14.0% vs. 10.9%), suicidal ideation (6.4% vs. 2.8%), and suicide plans (5% vs. 1.0%). The increases in PTSD-SMI were confined to respondents not from the New Orleans Metropolitan Area, while the increases in suicidal ideation-plans occurred both in the New Orleans sub-sample and in the remainder of the sample. Unresolved hurricane-related stresses accounted for large proportions of the inter-temporal increases in SMI (89.2%), PTSD (31.9%), and suicidality (61.6%). Differential hurricane-related stress did not explain the significantly higher increases among respondents from areas other than New Orleans, though, as this stress was both higher initially and decreased less among respondents from the New Orleans Metropolitan Area than from other areas affected by the hurricane. Outcomes were only weakly related to socio-demographic variables, meaning that high prevalence of hurricane-related mental illness remains widely distributed in the population nearly two years after the hurricane.

INTRODUCTION

Hurricane Katrina was the deadliest hurricane in the US in seven decades and the most expensive natural disaster in US history. More than 500,000 people were evacuated. Nearly 90,000 square miles were declared a disaster area (roughly equal to the land mass of the United Kingdom).[1] More than 1600 confirmed deaths occurred and more than 1000 people still remain missing.[2] As one might expect based on these facts, epidemiological data have documented an extremely high prevalence of psychopathology in the population affected by Katrina.[3, 4] The most representative epidemiological study estimated that nearly half the pre-hurricane residents of the New Orleans Metropolitan Area and one-fourth the pre-hurricane residents of the other areas affected by Katrina had a DSM-IV anxiety-mood disorder five months after the hurricane, with 30% of those from New Orleans Metro and 12% of those from the remainder of the hurricane area estimated to have PTSD.[3]

The destruction caused by hurricane Katrina has lingered much longer than that occurring after previous hurricanes.[5] Indeed, many people living in the areas affected by Katrina continue to be without essential services two years after the storm. One might expect from this that the typical pattern of recovery from post-disaster mental illness would be delayed. Previous research has documented an inverse J-shaped recovery curve for PTSD after traumatic events, with recovery most rapid in the first year, more gradual in the second year, and stabilizing into chronicity after two years.[6] Although fewer studies have examined recovery after natural disasters,[7-9] the results are generally consistent with the larger literature in finding that a substantial proportion of post-traumatic mental illness resolves within one or two years. But there are exceptions. For example, a longitudinal study of victims of the 1992 Hurricane Andrew in Florida carried out 6 and 30 months after the hurricane found that the prevalence of PTSD

actually increased slightly over time.[9] A similar pattern has been found in long-term studies of refugees exposed to ongoing severe stress,[10, 11] whereas recovery has been much more common in studies of refugees whose objective life situations improved substantially.[12, 13] In the case of armed services personnel returning from combat duty in Iraq and Afghanistan, the even more extreme pattern has been found of PTSD symptoms actually increasing over time.[14, 15]

It would not be surprising, based on these results, if a similar pattern of slow recovery or perhaps even an increase in mental illness compared to shortly after the hurricane was found in follow-up studies of survivors of Hurricane Katrina. The current report presents data on this matter from the Hurricane Katrina Community Advisory Group (CAG), a representative sample of pre-hurricane residents of the FEMA-defined areas in Alabama, Louisiana, and Mississippi directly affected by Katrina[16-18] who agreed to participate in a series of tracking surveys over several years to assess need for mental health services. The baseline survey was carried out five-seven months after the hurricane and the first follow-up survey of the same sample was carried out one year later. Results from this two-wave panel sample are presented here on trends in the prevalence and correlates of hurricane-related anxiety-mood disorders.

Three results from the baseline CAG survey are noteworthy as a backdrop to the current report. First, the estimated prevalence of anxiety-mood disorders in the baseline CAG survey was roughly twice as high as the estimated prevalence found three years earlier using the same measures in the sub-sample of the National Comorbidity Survey Replication (NCS-R)[19] residing in areas subsequently affected by Hurricane Katrina.[4] We will present data here on trends in this prevalence over the subsequent year. Second, the socio-demographic correlates of these disorders were largely the same in the CAG and the NCS-R, suggesting that the adverse mental health effects of Hurricane Katrina were equally distributed across broad segments of the

population. We will examine whether patterns of change in these disorders over the subsequent year also were consistent or varied across broad socio-demographic segments of the population. Third, the prevalence of suicidality in the baseline CAG sample was much lower than in the NCS-R despite the higher prevalence of anxiety-mood disorders. Subgroup analysis traced this low prevalence of suicidality to widespread feelings of optimism in the affected population that the practical problems of living created by the hurricane would soon be resolved. This optimism turned out to be unrealistic, as the subsequent pace of government reconstruction efforts was slow. This raises the question whether the slow pace of recovery resulted in a rise in the prevalence of suicidality to a level more consistent with the high prevalence of anxiety-mood disorders in the population, a possibility that we evaluate here.

MATERIALS AND METHODS

The sample

The CAG target population was English-speaking adult (aged ≥ 18) pre-hurricane residents of the counties (in Alabama and Mississippi) and parishes (in Louisiana) defined by the Federal Emergency Management Agency (FEMA) as directly affected by Hurricane Katrina (www.fema.gov/hazard/hurricane/2005katrina). Pre-hurricane residents of these areas were eligible for the sample regardless of whether they were in these areas at the time of the hurricane and regardless of the extent they or their property were affected by the hurricane. Census data suggest that only about 1% of this population was unable to speak English, suggesting that the restriction of the sample to English-speakers did not introduce major bias into the sample.

Respondents were selected from three sampling frames: the telephone numbers (land lines and cell phones) of the roughly 1.4 million families that applied for assistance from the American Red Cross (ARC); a random-digit dial (RDD) telephone frame of households in the

areas affected by the hurricane; and a supplemental sample of hotels that housed FEMA-supported evacuees. Although the use of RDD might seem impractical in a population where many people evacuated, evacuation was much more common in New Orleans Metro than the remainder of the affected areas. Furthermore, many evacuees had returned as of the time of the survey. RDD was useful in contacting these non-evacuees and returned evacuees. The vast majority of evacuees, in comparison, applied to the ARC for assistance and could be traced through contact information provided in the ARC applications for assistance. Other evacuees could be traced in the RDD sample through a call-forwarding service set up by Bell South in the wake of the hurricane that forwarded calls to phone numbers anywhere in the country requested by the person in whose name the pre-hurricane phone was registered. More details on sampling and adjustment for overlap of the frames are reported at www.HurricaneKatrina.med.harvard.edu.

The baseline CAG survey was carried out between January 19 and March 31, 2006, five to seven months after the hurricane. A total of 1043 respondents completed the interview, representing an estimated 41.9% of the eligible households we screened. This low cooperation rate is due at least in part to the fact that we required a commitment from respondents for long-term involvement in the CAG in order to participate in the baseline survey, as the main goal of the CAG was to track the progress of recovery over time. An analysis of data obtained from the full screening sample found that those who did not join the CAG were similar to participants on all socio-demographic variables, but had a somewhat higher level of self-reported hurricane-related stress exposure (assessed by asking respondents to rate their hurricane-related stress exposure on a 0-10 scale where 0 meant "no stress at all" and 10 meant "the most stress you can imagine a person having") and more psychological distress (assessed with a short series of

questions about frequency of common anxiety-mood symptoms). The median and inter-quartile range (IQR: 25th-75th percentiles) of reported hurricane-related stress exposure were 8.0 (6.0-10.0) among non-respondents and 7.0 (5.0-9.0) among CAG members. The median and IQR of reported psychological distress on a scale scored to have to a 0-10 theoretical range were 2.9 (1.2-4.4) among non-respondents and 1.7 (0.6-3.5) among CAG members. A weight was applied to the baseline CAG data to adjust for these response biases. A within-household probability of selection weight was also used along with a post-stratification weight to adjust for residual discrepancies between the CAG and the 2000 Census population on a range of social, demographic, and pre-hurricane housing variables. The consolidated CAG sample weight, finally, was trimmed to increase design efficiency based on evidence that trimming did not significantly affect the estimated prevalence of anxiety-mood disorders.

Detailed personal contact information (current and permanent addresses, land line and cell phone numbers, email addresses) and tracing information (contact information for three people who would know how to find the respondent if he/she moved) was obtained for all baseline CAG respondents. This information was used to find baseline respondents for a follow-up survey carried one year after the initial interview. Some 815 of the baseline respondents were successfully traced and interviewed in this follow-up survey (78.1% of the baseline sample). Minor differences in the composition of the follow-up sample compared to the baseline sample in socio-demographic characteristics, traumatic stress exposure, and mental health were adjusted for by using a propensity score adjustment weight[20] applied to the consolidated baseline weight.

Measures

Anxiety-mood disorders: The K6 scale of non-specific psychological distress[21] was used to screen for DSM-IV anxiety-mood disorders within 30 days of each interview.[22] Scores

range from 0 to 24. Two independent validation studies have shown the K6 has an area under the receiver operating characteristic curve of between 0.86[21] and 0.89[23, 24] in predicting DSM-IV anxiety-mood disorders that meet the severity criteria for the Substance Abuse and Mental Health Services Administration's definition of Serious Mental Illness (SMI)[25] when compared to diagnoses generated from comprehensive diagnostic interviews. Based on these K6 validation studies, scores of 13–24 were classified probable SMI, while scores of 8–12 were classified probable mild–moderate mental illness (MMI) and scores of 0–7 were classified probable non-cases. The designation of MMI is a residual definition of respondents estimated to meet criteria for a DSM-IV anxiety-mood disorder but not SMI. Previous research has shown that MMI is of considerable public health importance because of its high prevalence, burden, and risk of transition to SMI.[26]

A small clinical reappraisal study of five respondents selected randomly from each of these three K6 categories (SMI, MMI, non-case) was carried out with the Structured Clinical Interview for DSM-IV (SCID).[27] The syndromes assessed were DSM-IV major depressive episode, panic disorder, generalized anxiety disorder, post-traumatic stress disorder, agoraphobia, social phobia and specific phobia. Serious mental illness was defined as a DSM-IV diagnosis with a global assessment of functioning[28] score of 0–60 and mild–moderate mental illness as a DSM-IV diagnosis with a global assessment of functioning of ≥61. The SCID interviews confirmed K6 classifications for 14 of 15 respondents. The exception was a respondent classified as having SMI by the K6 but MMI by the SCID based on a global assessment of functioning (GAF) score of 65 (with GAF of 0-60 required to diagnose SMI). These results, although based on only a small sample, suggest that the K6 has excellent psychometric properties (estimated in the SCID sample weighted to adjust for the sample-wide

K6 distribution), including sensitivity (1.0 for SMI, .90 for MMI, and 1.0 for either SMI to MMI) and specificity (1.0).

Given the special importance of PTSD in trauma situations, a separate PTSD screen was included based on the 12-item Trauma Screening Questionnaire (TSQ),[29] a validated screen for PTSD.[30] Our version differed from the original TSQ in using dimensional response options rather than a simple yes-no response format to assess 30-day symptom frequency (never, less than once a week, about once a week, two to four days a week, and most every day). A clinical reappraisal study was carried out to calibrate TSQ responses to DSM-IV PTSD with 30 respondents judged possible cases and 10 randomly selected others. A cut-point on the factor-based 0-42 scale of TSQ responses (12 items, each scored 0-4) of 20+ was selected to approximate the SCID PTSD prevalence in the weighted (to adjust for over-sampling of screened positives) clinical reappraisal sample. Sensitivity (0.89), specificity (0.93), and area under the receiver operating characteristic curve (0.91) were all excellent for this dichotomous screen.

Suicidality: Suicidality was assessed with questions about the occurrence of suicidal ideation ("seriously thinking about killing yourself"), plans, and attempts within the past 12 months using questions originally developed for the National Comorbidity Survey.[31]

Hurricane-related stressors: The baseline survey included 29 structured questions developed based on pilot interviews about hurricane-related stressors. These included traumatic stressors that occurred at the time of the hurricane (e.g., death of loved one, a life-threatening experience that occurred to the respondent), highly stressful experiences that occurred in the aftermath (e.g., homelessness, physical adversity), and chronic stressful experiences that occurred in the first five to seven months after the hurricane (e.g., geographic dislocation, financial adversity). The latter set of questions repeated in the follow-up survey. In addition,

respondents were asked to provide a quantitative rating of the overall stressfulness of their situation by reporting "how stressful overall" they would say their experiences related to the hurricane and aftermath were on a 0-to-10 scale "where 0 means not at all stressful and 10 means the most stressful thing you can imagine." Based on the finding that responses to the structured questions about specific stressors were strongly related to responses to the global rating question, we focus on trends in responses to the latter question in the current report, distinguishing respondents who reported severe (9-10), serious (7-8), moderate (5-6), or mild (3-4) stress from other respondents (0-2).

Socio-demographics: We examined associations of the mental health outcomes with a number of socio-demographic variables, including respondent: age, sex, race/ethnicity, family income in the year before the hurricane, education, current health insurance coverage, and current living situation. Age was coded 18-39, 40-59, 60+. Race/ethnicity was coded Non-Hispanic Whites, Non-Hispanic Black, and other (largely Hispanics and Asians). Family income was coded in quartiles, where low was defined as less than or equal to 0.5 of the population median on the ratio of per-tax income to number of family members, while low-average was defined 0.5+ through 1.0 on the same ratio, high-average 1.0+ through 3, and high 3+ on this ratio. Years of education were coded in four categories: 0-11, 12 (high school graduate), 13-15, and 16+ (college graduate). Health insurance was coded yes-no. Current living situation, finally, was coded in four categories: living in the same house as before the hurricane, in the same county-parish but not the same house, in the same state but not the same county-parish, and in a different state.

Analysis methods

Cross-tabulations were used to examine patterns of onset, recovery, and persistence of

estimated DSM-IV anxiety-mood disorders that qualify for the designations of SMI and MMI and of suicidal ideation, plans, and attempts. The significance of differences in these prevalence estimates between the baseline and follow-up surveys was evaluated using within-respondent paired comparison tests. The effects of socio-demographic variables and stress measures in predicting trends in these outcomes were estimated using logistic regression analysis.[32] When the baseline value of the outcome variable is included as a control in such equations to predict outcomes at the time of follow-up, as it is here, the regression coefficients can be interpreted as predictors of change in the outcomes.[33] In the absence of estimated interactions between the substantive predictors and the baseline measure of the outcome, the effects of the predictors on change are assumed to be the same in predicting onset and absence of remission of the outcome. In order to determine whether the associations of the predictors with onset and absence of remission differ, we evaluated the statistical significance of interactions of substantive predictors with baseline measures of each outcome. Logistic regression coefficients and their standard errors were exponentiated to create odds-ratios (OR's) and 95% confidence intervals (95% CI's) for ease of interpretation. Because the data were weighted, the Taylor series linearization method[34] was used to calculate design-based significance tests. Multivariate significance was evaluated using Wald χ^2 tests based on design-corrected coefficient variance–covariance matrices. Statistical significance was evaluated using two-sided .05-level tests.

RESULTS

Trends in DSM-IV anxiety-mood disorders and suicidality

The estimated prevalence of any anxiety-mood disorder did not change significantly between the baseline survey (30.7%) and the follow-up survey (33.9%; $t = 1.9$, $p = .06$), although the trend is positive. (Table 1) The estimated prevalence of SMI, in comparison, is significantly

higher in the follow-up than baseline survey in the total sample (14.0% vs. 10.9%, $t = 2.4$, $p = .018$) as well as in the sub-sample of respondents who are not from the New Orleans Metropolitan Area (13.2% vs. 9.4%, $t = 2.1$, $p = .038$). This trend is not significant, in comparison, in the New Orleans Metro sub-sample (16.9% vs. 16.5%, $t = 0.1$, $p = .91$). The estimated prevalence of PTSD is significantly higher in the follow-up than baseline survey in the sub-sample exclusive of New Orleans Metro (20.0% vs. 11.8%, $z = 4.0$, $p < .001$), but not in the New Orleans Metro sub-sample (24.1% vs. 25.9%, $t = 0.4$, $p = .68$). The prevalence of suicidality, finally, is significantly higher in the follow-up than baseline survey both with regard to suicidal ideation (6.4% vs. 2.8%, $t = 2.3$, $p = .020$) and suicide plans (0.8% vs. 0.2%, $t = 2.0$, $p = .044$). These trends, unlike those for SMI and PTSD, are significant and relatively comparable in magnitude in both the New Orleans Metro sub-sample and in the remainder of the sample.

(Table 1 about here)

We cross-classified baseline and follow-up diagnoses in order to study the composition of the diagnoses with significant trends. The majority of respondents classified as having SMI at follow-up either already had SMI at baseline (39.9%) or progressed from baseline MMI (31.6%) to SMI, while the remaining 28.5% represent delayed onsets (i.e., no MMI at baseline). (Table 2, Part I) A similar pattern exists for PTSD, where the majority of follow-up cases either already had PTSD at baseline (41.7%) or progressed from baseline MMI or SMI to PTSD (27.1%), while the remaining 31.2% are delayed onsets (i.e., no MMI or SMI at baseline). The proportions of delayed onsets are comparable for suicidal ideation (24.1%) and somewhat higher for suicide plans (46.6%), while the proportions with persistence (16.6% and 26.0% for ideation and plans, respectively) are lower than for SMI and PTSD. The proportions that represent progressions (i.e., from baseline cases with MMI and SMI) are higher for suicidal ideation (59.3%) than for SMI or

PTSD and comparable for suicide plans (27.4%) compared to SMI and PTSD.

(Table 2 about here)

It is noteworthy that the majority of respondents with baseline SMI (51.1%) continued to have SMI at follow-up, while 30.8% improved (i.e., were classified as having MMI at follow-up) and only a relatively small minority (18.1%) recovered (i.e., no longer met criteria either for SMI or MMI). (Table 2, Part II) In the case of PTSD, 70.4% of baseline cases continued to have PTSD at follow-up, while an additional 10.3% were classified as having MMI or SMI but not PTSD at follow-up, and only 19.3% recovered. Persistence was somewhat lower for suicidal ideation (37.9%), but much higher for plans (69.8%). Improvement, in comparison, was comparatively high for suicidal ideation (49.9%), but not for suicide plans (16.0%). Recovery (i.e., no MMI, SMI, or suicidality at follow-up), finally, was relatively uncommon for either suicidal ideation (12.2%) or plans (18.0%).

Socio-demographic predictors of the trends

Only three of the socio-demographic variables are significant predictors of trends in SMI, PTSD, or suicidal ideation: respondent age, family income, and current living situation. (Table 3) (Suicide plans, which also increased significantly over time, were too rare to be included in the trend analysis.) Respondent age significantly predicts increased prevalence of PTSD (highest increases among respondents ages 40-59) and suicidal ideation (highest increases among respondents ages 18-39). Low family income predicts increased prevalence of all three outcomes. Family living situation predicts increased prevalence of SMI (higher increases among respondents not living in the same town as before the hurricane, whether or not they live in the same county-parish or state, compared to those living in the same town, whether or not they live in the same house). While significant in statistical terms, these associations are not strong in

substantive terms. The significant odds-ratios (in the range 3.5-5.7) explain only between 2.1% (PTSD) about 2.7% (SMI) of the variance in the outcomes based on Phi-square tests.

(Table 3 about here)

An attempt was made to distinguish the predictors of delayed onset from the predictors of persistence by including interactions between the predictors and the baseline measures of the outcomes in an expanded version of the prediction equations, but none of these models conversed due to the sparseness of the data. As a result, we cannot determine whether the significant socio-demographic predictors are predicting delayed onsets of the outcomes, persistence, or both.

The effects of hurricane-related stress

One possible explanation for the significant increases in the prevalence estimates of SMI, PTSD, and suicidal ideation is that hurricane-related stresses might have increased over time due to the slow pace of recovery efforts. As it turns out, though, this is not the case. A significantly lower proportion of respondents reported hurricane-related stress in the follow-up survey (57.5%) than in the baseline survey (91.7%; $t = 10.2$, $p < .001$). (Table 4) This significant decrease exists both in the New Orleans Metro sub-sample (97.9% vs. 78.3%, $t = 8.0$, $p < .001$) and in the remainder of the sample (90.0% vs. 51.7%, $t = 8.2$, $p < .001$). The decrease exists not only for stress overall but also for severe stress (32.6% vs. 13.2%, $t = 5.4$, $p < .001$) and serious stress (27.6% vs. 12.9%, $t = 4.7$, $p < .001$). It is noteworthy, in light of the fact that the SMI-PTSD increases exist only in the sub-sample exclusive of the New Orleans Metro Area, that the decrease in hurricane-related stress is less pronounced in New Orleans Metro than the remainder of the sample. Indeed, the prevalence of stress in the follow-up survey is significantly higher in the New Orleans Metro sub-sample than in the remainder of the sample (78.3% vs. 51.7%, t =

6.1, $p < .001$). This means that higher levels of residual hurricane-related stress cannot explain the fact that SMI-PTSD prevalence increased over time only among respondents not from the New Orleans Metro Area.

(Table 4 about here)

Another possibility is that the psychological effects of hurricane-related stresses increased over time even though the magnitude of the stresses themselves decreased. A comparison of the cross-sectional associations between hurricane-related stresses and the outcomes finds some superficial support for this possibility with regard to SMI, as the odds-ratios linking stress with SMI in the follow-up survey are consistently larger than the parallel odds-ratios in the baseline survey. (Table 5) However, these differences are not statistically significant ($\chi^2_4 = 8.1$, $p = .09$). Furthermore, the pattern is not less pronounced in the New Orleans Metro sub-sample than in the remainder of the sample ($\chi^2_4 = 5.1$, $p = .28$; detailed results available on request) This means that heightened reactivity to hurricane-related stress cannot explain the fact that the significant increase in SMI is confined to respondents in the sub-sample exclusive of the New Orleans Metro Area. Furthermore, the pattern of higher odds-ratios at follow-up than baseline does not hold either for PTSD or for suicidal ideation. In the case of suicidal ideation, the rarity of the outcome required the stress measures to be dichotomized (severe stress vs. all others) to stabilize parameter estimates.

(Table 5 about here)

The model was expanded to study the effects of hurricane-related stress on trends in SMI, PTSD, and suicidal ideation. This was done by adding a control for the baseline value of the outcome to the prediction equation along with measures of stress assessed in both surveys. Baseline stress was not a significant predictor of trends in either SMI ($\chi^2_4 = 4.3$, $p = .37$) or PTSD

($\chi^2_4 = 8.0$, $p = .09$), while stress at follow-up was significant in both equations ($\chi^2_4 = 31.5$, $p < .001$; $\chi^2_4 = 13.0$, $p = .011$). No significant interactions were found between baseline stress and follow-up stress or between sub-sample (i.e., New Orleans Metro vs. the remainder of the sample) and either measure of stress. (Detailed results available on request.) Based on these results, the final model for trends in SMI and PTSD included stress in the follow-up sample as the only key predictor. (Table 6) Stress exposure in this model is associated with substantial variation in both SMI and PTSD at follow-up, with odds-ratios for serious-severe stress in the range 35.8-42.2 for SMI and 12.8-20.3 for PTSD after controlling for baseline SMI and socio-demographics.

A good way to grasp the substantive significance of these results is to examine standardized prevalence estimates of the outcomes SMI and PTSD at follow-up. The latter are prevalence estimates in which adjustments have been made to correct for the associations of stress with baseline values of the outcomes, socio-demographics, and sub-sample, so that the effects of stress can be seen distinct from the effects of these other variables. These standardized prevalence estimates are 0.3% SMI and 1.4% PTSD among respondents with no residual hurricane-related stress compared to 29.5-30.6% SMI and 38.8-46.1% PTSD among respondents with moderate-to-severe stress. If we think of these associations as causal, the population attributable risk proportions of SMI and PTSD due to hurricane-related stress (i.e., the proportions of currently existing SMI and PTSD that would be expected to remit if all hurricane-related stress was resolved) are 89.2% for SMI and 31.9% for PTSD.

(Table 6 about here)

The best-fitting model is different for suicidal ideation, as baseline stress and stress at follow-up (both dichotomized to severe-serious vs. all others due to the rarity of the outcome and

the nonlinearity of the association with hurricane-related stress) interact in predicting trends in suicidal ideation ($\chi^2_1 = 7.2$, $p = .007$). The best-fitting model is one that distinguishes respondents with severe-serous hurricane-related stress in one or both surveys versus all others. An additional complication, though, is that the effect of stress in this model differs significantly between the New Orleans Metro sub-sample and the remainder of the sample ($\chi^2_1 = 8.47.2$, $p = .007$), with the odds-ratio substantially higher among respondents not from the New Orleans Metro Area (104.1) than from New Orleans Metro (2.2). The prevalence estimates of suicidal ideation at follow-up among respondents with severe-serious hurricane-related stress are 3.1% in the New Orleans Metro sub-sample and 13.0% in the remainder of the sample compared to 0.3% and 0.0% among respondents without severe hurricane-related stress. If we think of these associations as causal, the population attributable risk proportion of suicidal ideation associated with severe-serious hurricane-related stress is 61.6% in the total sample.

DISCUSSION

Four principal limitations of the study need to be noted. First, mental disorders were estimated with screening scales rather than with clinical interviews. It should be noted, though, that the K6 screening scale has previously been validated[21, 23, 24] and that the modified TSQ was found to be valid in our clinical reappraisal study. Nonetheless, screening scales are inevitably less precise than clinical interviews, generally leading to associations being attenuated. Based on this fact, the results reported here about predictors are likely to be conservative. Second, the baseline CAG survey response rate was low and the sampling frame excluded people who were unreachable by telephone. These problems presumably led to the most marginalized segments of the population being under-represented in the sample, making the prevalence estimates reported here of anxiety-mood disorders and hurricane-related stress conservative. Third, the ratings of

hurricane-related stress were retrospective and subjective, raising concerns about bias related to current emotional functioning. Fourth, even though we interpreted the associations between hurricane-related stress and the outcome measures in causal terms, it is possible that unmeasured common causes (e.g., pre-hurricane history of psychopathology that influenced stressor exposure and post-hurricane mental illness) influenced the observed associations. Caution is consequently needed in interpreting these associations.

Within the context of these limitations, the prevalence estimates of anxiety-mood disorders both at baseline and in the follow-up survey in the New Orleans Metro sub-sample are considerably higher than those found in previous surveys of mental illness after natural disasters in the US, while the prevalence estimates in the remainder of the sample are comparable to those in previous studies.[35, 36] Previous reviews have noted that comparisons of prevalence estimates across disasters is challenging due to the wide range of disaster experiences to which people in disasters are exposed. However, broadly speaking, the higher prevalence estimates of anxiety-mood disorders in the New Orleans Metro sub-sample are consistent with the results of studies that considered persons in highly disaster affected areas,[37, 38] while the lower prevalence estimates in the remainder of the sample are consistent with the results of previous studies in areas with lower disaster impact.[39, 40]

The significant increase in prevalence estimates of SMI, PTSD, and suicidal ideation-plans are different from the patterns found in other longitudinal surveys of mental illness after natural disasters, where prevalence typically decreases.[7-9] As noted in the introduction, even in cases where there is no decrease, the typical pattern is for prevalence to remain stable for some time rather than to increase significantly[9] The increasing prevalence of SMI, PTSD, and suicidal ideation-plans in the CAG is consequently striking.

The fact that the increases in SMI and PTSD are confined to respondents not from the New Orleans Metro Area is difficult to interpret in light of the higher levels of hurricane-related stress both at baseline and at follow-up in the New Orleans Metro sub-sample. It is possible to speculate post hoc that the much greater media attention directed at New Orleans than the other areas affected by Katrina might have led to a greater sense of abandonment among affected people not from the New Orleans Metro Area, but we have no data to evaluate this interpretation. Another possibility is that the increases in SMI, PTSD, and suicidality are partly due to increases in stressors that might only be indirectly linked to the hurricane. This possibility is consistent with evidence from several longitudinal studies that low-intensity ongoing stressors significantly predict long-term PTSD, presumably because these nagging stressors erode the resistance resources that would otherwise promote recovery.[41, 42] However, it is unclear why such stressors might be more prevalent among people not from the New Orleans Metro Area than from New Orleans Metro. Finally, there is the possibility that psychological vulnerability to such stressors is higher among people not from the New Orleans Metro Area and that this heightened vulnerability explains why the increases in SMI and PTSD documented here were confined to this sub-sample. Exactly this kind of difference was found in our analysis of the association between residual hurricane-related stress and suicidal ideation. However, caution is needed in interpreting this result due to the small number of respondents with suicidal ideation and the wide confidence interval of the estimated odds-ratio in the sub-sample of respondents not from New Orleans Metro.

The findings that young people, people with low socio-economic status, and people who were geographically displaced are at comparatively high risk of anxiety-mood disorders are consistent with previously documented correlates of mental illness after disasters[35, 36] and other

traumas.[43] Importantly, though, these associations are modest in magnitude, suggesting that the mental illness associated with Hurricane Katrina is distributed across the full range of the socio-demographic spectrum of the affected population. It is noteworthy in this regard that the significant upward trends in SMI, PTSD, and suicidality were found to be unrelated to sex, race/ethnicity, education, and health insurance status.

These results lead to four conclusions. First, hurricane-related stress clearly is playing a critical role in the high prevalence of hurricane-related anxiety-mood disorders in this population. Second, the fact that the associations between these stresses and the mental health outcomes considered here were stronger among affected people from areas other than the New Orleans Metro Area suggests that undetermined stress and-or vulnerability factors are present among people from other areas New Orleans Metro that should lead policy makers to focus special attention on the needs of these people. It is noteworthy that the opposite pattern was found in an earlier analysis of anxiety-mood disorders in the baseline survey, where effects of the stressors that occurred during the hurricane and the immediate aftermath were stronger in the New Orleans Metro sub-sample than the remainder of the sample.[3] It is unclear why this geographic variation has reversed in the subsequent year. Third, the observation that these adverse effects are only weakly related to socio-demographic variables means that efforts to address the needs for mental health treatment in this population need to deal with all segments of the population rather than target only specific high-risk population segments. Fourth, the fact that hurricane-related stressors were still quite common in the population at the time of our follow-up assessment, which occurred nearly two years after the hurricane, and that high proportions of the outcomes at follow-up were attributable to these continuing stresses suggests that efforts to address the problem of increased mental illness and suicidal ideation-plans among people

affected by Hurricane Katrina will require efficient provision of practical and logistical assistance to deal with the high remaining levels of stress. This may be particularly challenging when it comes to helping pre-hurricane residents of the affected areas are now living elsewhere in the country, but it is especially important to reach these geographically displaced people because of their comparatively high risk of SMI.

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Table 1. Trends in the estimated prevalence of DSM-IV anxiety-mood disorders (in the 30 days before interview) and suicidality (in the 12 months before interview) in the two surveys

	New Orleans Metro				Remainder of the sample				Total sample			
	Baseline		Follow-up		Baseline		Follow-up		Baseline		Follow-up	
	%	(se)	%	(se)	%	(se)	%	(se)	%	(se)	%	(se)
Mental Illness (30-Day)												
Serious Mental Illness	16.5	(2.6)	16.9	(2.6)	9.4	(2.2)	13.2	(2.5)	10.9	(1.8)	14.0*	(2.0)
Mild-Moderate Mental Illness	27.8	(3.1)	24.9	(3.0)	17.5	(2.7)	18.6	(2.9)	19.8	(2.3)	19.9	(2.4)
PTSD	25.9	(3.1)	24.1	(3.0)	11.8	(2.4)	20.0*	(3.0)	14.9	(2.0)	20.9*	(2.5)
Any Mental Illness	44.3	(3.3)	41.8	(3.3)	26.9	(3.3)	31.7	(3.4)	30.7	(2.7)	33.9	(2.8)
Suicidality (12-Month)												
Ideation	3.1	(1.2)	7.9*	(2.0)	2.8	(1.2)	6.0*	(2.0)	2.8	(1.0)	6.4*	(1.6)
Plan	0.8	(0.7)	3.0*	(1.4)	1.0	(0.9)	2.4*	(1.3)	1.0	(0.7)	2.5*	(1.0)
Attempt	0.7	(0.7)	0.9	(0.8)	0.8	(0.8)	0.0	(0.0)	0.8	(0.7)	0.2	(0.2)
(n)	(472)				(343)				(815)			

*Significant difference between baseline and follow-up surveys based on two-tailed within-respondent paired t tests evaluated at the .05 level of significance.

Table 2. Decomposition of estimated prevalence of DSM-IV SMI and PTSD and suicidality between the two surveys (n = 815)

	SMI		PTSD		Ideation		Plans	
	%	(se)	%	(se)	%	(se)	%	(se)
I. Profiles of follow-up cases[1]								
Persistence	39.9	(7.7)	47.3	(6.7)	16.6	(10.0)	26.0	(22.1)
Progression	31.6	(7.4)	25.9	(6.0)	59.3	(12.9)	27.4	(14.5)
Delayed onset	28.5	(7.3)	26.8	(6.1)	24.1	(11.0)	46.6	(22.0)
(n)	(92)		(130)		(37)		(11)	
II. Transitions among baseline cases[1]								
Persistence	51.1	(9.1)	66.4	(6.5)	37.9	(18.7)	69.8	(29.3)
Improvement	30.8	(8.7)	16.9	(4.9)	49.9	(18.5)	12.2	(16.0)
Recovery	18.1	(6.9)	16.7	(5.0)	12.2	(7.4)	18.0	(21.2)
(n)	(74)		(107)		(23)		(4)	

[1]See the text for definitions of the categories.

Table 3. The effects of socio-demographic variables in predicting trends in estimated DSM-IV SMI and PTSD and suicidal ideation in the panel sample (n = 815)[1]

	SMI		PTSD		Suicidal ideation	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Age						
18-39			1.6	(0.7-3.7)	5.7*	(1.5-22.4)
40-59			4.2*	(1.8-9.5)	2.5	(0.6-10.3)
60+			1.0	--	1.0	--
χ^2_2			11.9	(.003)	6.4	(.040)
Income						
Low	3.7*	(1.4-9.8)	3.5*	(1.3-9.3)	4.9*	(1.4-17.2)
Low-Middle	1.6	(0.5-5.2)	2.3	(0.8-6.8)	0.8	(0.2-3.5)
Middle-High	1.2	(0.4-3.6)	1.2	(0.4-3.6)	2.2	(0.5-10.8)
High	1.0	--	1.0	--	1.0	--
χ^2_3	10.6	(.014)	7.8	(.049)	12.0	(.007)
Living situation						
Same Town	0.2*	(0.1-0.6)				
Different Town	1.0	--				
χ^2_1	9.7	(.002)				

*Significant association with the trend at the .05 level, two-sided test
[1]Multivariate logistic regression models controlling for baseline values of the outcome variable and for differences between the New Orleans Metro sub-sample and the remainder of the sample. Results are reported only for the total sample, not the two sub-samples, because no significant differences in results were found in the New Orleans Metro sub-sample versus the remainder of the sample. (Detailed results available on request)

Table 4. The prevalence of hurricane-related stress in the two surveys

	New Orleans Metro				Remainder of the sample				Total sample			
	Baseline		Follow-up		Baseline		Follow-up		Baseline		Follow-up	
	%	(se)	%	(se)	%	(se)	%	(se)	%	(se)	%	(se)
Severe	40.6	(3.3)	18.2*	(2.8)	30.4	(3.5)	11.9*	(2.5)	32.6	(2.8)	13.2*	(2.1)
Serious	38.8	(3.1)	18.8*	(2.5)	24.5	3.0)	11.3*	(2.3)	27.6	(2.5)	12.9*	(1.9)
Moderate	13.5	(1.8)	26.0*	(2.9)	23.6	(3.0)	15.1*	(2.6)	21.4	(2.4)	17.5	(2.2)
Mild	4.9	(1.1)	15.4*	(2.1)	11.5	(2.2)	13.5	(2.6)	10.1	(1.7)	13.9	(2.1)
Any	97.9	(0.5)	78.3*	(2.4)	90.0	(2.1)	51.7*	(3.6)	91.7	(1.7)	57.5*	(2.9)
(n)			(472)				(343)				(815)	

*Significant difference between baseline and follow-up surveys using two-tailed within-respondent paired t tests evaluated at the .05 level of significance.

Table 5. The cross-sectional associations of hurricane-related stresses with estimated DSM-IV SMI and PTSD and suicidal ideation (n = 815)[1]

	SMI				PTSD				Suicidal ideation[3]			
	Cross-sectional Baseline		Cross-sectional Follow-up		Cross-sectional Baseline		Cross-sectional Follow-up		Cross-sectional Baseline		Cross-sectional Follow-up	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Severe	23.3*	(2.8-194.0)	59.7*	(16.6-214.8)	65.2*	(11.1-381.4)	37.6*	(9.5-148.8)	7.4*	(1.4-38.7)	3.2*	(1.0-9.7)
Serious	3.6	(0.4-30.7)	45.1*	(12.8-158.7)	20.4*	(3.4-123.7)	18.7*	(4.8-73.4)	7.4*	(1.4-38.7)	3.2*	(1.0-9.7)
Moderate	3.9	(0.3-46.9)	12.7*	(3.6-45.2)	7.5*	(1.0-58.5)	5.4*	(1.5-19.4)	-		-	
Mild	1.2	(0.1-20.9)	4.9*	(1.0-23.6)	2.1	(0.2-58.3)	4.6*	(1.2-17.0)	-		-	
χ^2_4 (p-value)	32.7	(<.001)	51.7	(<.001)	38.9	(<.001)	34.0	(<.001)	5.6	(.018)	4.0	(.044)
χ^2_3 dif (p-value)[2]	8.1 (.09)				1.2 (.87)				0.8 (.37)			

*Significant difference between baseline and follow-up surveys based on two-tailed within-respondent paired t tests evaluated at the .05 level of significance.

**Significant difference in cross-sectional associations between the two surveys.

[1]Multivariate logistic regression models controlling for socio-demographics and for differences between the New Orleans Metro sub-sample and the remainder of the sample. No significant differences in results were found in the New Orleans Metro sub-sample versus the remainder of the sample. (Detailed results available on request)

[2]Difference in the set of four ORs between the two surveys

[3]Due to the rarity of suicidal ideation and the extreme nonlinearity of the association between hurricane-related stress and this outcome, the latter was dichotomized as severe-serious vs. all others (i.e., moderate through none).

Table 6. The effects of hurricane-related stresses in predicting trends in estimated DSM-IV SMI and PTSD and suicidal ideation in the panel sample along with standardized prevalence estimates of the outcomes (n = 815)[1]

	SMI			PTSD			Suicidal ideation					
							New Orleans Metro			Remainder of the sample		
	%[2]	OR	(95% CI)	%[2]	OR	(95% CI)	%[2]	OR	(95% CI)	%[2]	OR	(95% CI)
Severe	30.6	42.2*	(11.2-159.3)	46.1	20.3*	(4.9-84.6)	3.1	2.2	(0.5-9.3)	13.0	104.1	(12.6-890.8)
Serious	30.6	35.8*	(9.7-133.0)	46.1	12.8*	(3.0-53.7)	3.1	2.2	(0.5-9.3)	13.0	104.1	(12.6-890.8)
Moderate	29.5	12.9*	(3.6-45.4)	38.8	4.4*	(1.2-16.1)	0.3	1.0	--	0.0	1.0	--
Mild	5.1	4.6	(0.9-22.7)	10.6	3.5*	(1.0-12.6)	0.3	1.0	--	0.0	1.0	--
None	0.3	1.0	--	1.4	1.0	--	0.3	1.0	--	0.0	1.0	--
χ^2_4 (p-value)		39.0	(<.001)		21.0	(<.001)		1.1	(.30)		18.0	(<.001)

*Significant difference from respondents with no hurricane-related stress (scores of 0-2 on the 0-10 scale) at the .05 level of significance.

[1]Multivariate logistic regression models controlling for socio-demographics, baseline values of the outcome variable, and differences between the New Orleans Metro sub-sample and the remainder of the sample. No significant differences in results were found in the New Orleans Metro sub-sample versus the remainder of the sample. (Detailed results available on request)

[2]Standardized prevalence estimates adjusting for the associations of stress levels with all other predictors in the models.

Statement of

Michael A. Zieman, FACHE
Administrator of Memorial Behavioral Health
Memorial Hospital at Gulfport, Mississippi

Submitted for the Record of the

Subcommittee on Disaster Recovery
of the
Committee on Homeland Security and Governmental Affairs

United States Senate

"Post-Catastrophe Crisis: Addressing the Dramatic Need and Scant Availability of Mental Health Care in the Gulf Coast"

October 31, 2007

Contact Information:

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Chairman Landrieu, Ranking Member Stevens, and members of the subcommittee, I am Michael A. Zieman, FACHE, Administrator of Memorial Behavioral Health, an 80-bed inpatient and outpatient mental health facility located in Gulfport, Mississippi. Memorial Behavioral Health is owned by Memorial Hospital at Gulfport. Memorial, a not-for-profit organization with more than 440 beds, is one of the most comprehensive medical facilities in Mississippi and offers the most advanced technology and services available on the Mississippi Gulf Coast. I also chair the Mississippi Coast Mental Health Cooperative.

Statement of the Problem

The aftereffects of Hurricane Katrina on the mental health of children and their families in the Mississippi Gulf Coast region (Jackson, Harrison and Hancock counties) are reaching epidemic proportions. Eighteen months after the hurricane, a study of 12,000 households living in FEMA-subsidized housing by the Columbia University School of Public Health, in coordination with the Children's Health Fund Project, found that:

- 68% of female caregivers surveyed indicated having a mental health disability of depression, anxiety or other psychiatric disorders; and
- 44% of children had symptoms of new mental health problems such as depression, anxiety and sleep problems.

Other post-Katrina studies in this area report similar findings of alarmingly high levels of mental illness, with over 50% of parents and caregivers reporting at least one child in the household with emotional and behavioral problems since the hurricane (a rate higher than reported in Louisiana).

Without serious and concerted community-wide interventions, the prognosis for the future of these children is bleak. These counties already are experiencing significant increases in:

- School disengagement and drop-out rates
- Drug and alcohol abuse
- Domestic and child abuse
- Violence and crime
- Reported suicides and suicide attempts

Barriers to Treatment

These problems are exacerbated by the lack of access to timely and appropriate mental health assistance due to the following barriers to treatment:

- Lack of financial resources and transportation for those in need of mental health services
- Lack of sufficient numbers of trained mental health professionals, and burnout among these professionals
- Lack of sufficient treatment services and coordination of services between providers

- Lack of sufficient specialized training and support to schools, faith-based organizations and community services for children.
- Absence of adequate public education about available help and the importance of seeking treatment
- Apathy and lack of resiliency on the part of parents and caregivers trying to cope with their own losses and problems

Purpose of the Mississippi Coast Mental Health Cooperative

In response to the many mental health challenges facing Gulf Coast children and their families, the Mississippi Coast Mental Health Cooperative was formed to unite area mental health treatment providers in order to address these problems in a coordinated way. The goal of this group is to partner with public and private funders to develop pilot programs and community-wide initiatives that demonstrate improved long-term mental well-being for children and their families, and that can be used as models for other communities recovering from disaster.

Request for Federal Assistance

There is a strong need for the Federal government, in cooperation with the state of Mississippi, to provide funds for the transition from disaster relief to sustained infrastructure and service redevelopment.

Specifically, we suggest the following mechanisms for possible ways to address these concerns:

* *Healthcare Related Professional Workforce Supply Grants* that would help the hospitals, mental health providers and agencies recruit and retain qualified physicians, nurses, and other hospital personnel to make up for workforce shortages caused by Katrina. Louisiana, but neither Mississippi nor Alabama, received such grants earlier this year even though all three states compete for the same pool of health care personnel applicants;

* *Uncompensated Care Relief* that would offset increased costs of providing unreimbursed care to uninsured or indigent patients who remain displaced by the storms or are part of the new transient workforce scattered across the Gulf Coast;

* *Medicaid Funding* Provide hospitals and mental health providers with temporary adjustments to various reimbursement methodologies, including supplemental payments through existing Disproportionate Share and Upper Payment Limit Programs. Increase the F-MAP rate to 1.0 for services provide in disaster counties.

Lafayette Parish School System

Lasting Partnerships

Safe Schools/Healthy Students Project

P. O. Drawer 2158 • Lafayette, LA 70502-2158 • (337) 236-8527

Lasting Partnerships, the Lafayette Parish School System Safe Schools/Healthy Students Project, serves 30,144 students in 44 schools, including alternative sites. The district's regular schools are comprised of 5 high schools, 12 middle schools, and 22 elementary schools.

Programs and activities implemented through Lasting Partnerships include:

Element 1: Ensure that school environments are safe

- Safety and security of each physical plant are assessed by Lafayette Parish Sheriff's Office
- Installation of video cameras in the schools according to risk and facility improvements based on assessments
- Training for staff regarding the recognition, response, and management of emergency situations

Element 2: Equip every student with skills of responsible life choices in prevention of drug use and violence

- Second Step Curriculum
- Protecting You, Protecting Me Curriculum
- Leadership and Resiliency Program
- Principle Woods Curriculum
- Communities Mobilizing for Change for Alcohol
- Drug Awareness Workshops by the Metro Narcotics Task Force

Element 3: Fill gaps to ensure early access to continuum of mental health support services

- The School-based Therapy Assessment & Referral Services (STARS) team (3 school psychologists, 3 social workers, & 3 licensed professional counselors) provides direct services to students--prevention/early intervention services for at-risk children, screening and assessment for depression and other disorders, and referrals of students and families to mental health agencies with follow up services
- Training for school personnel in recognizing emotional and behavioral disorders, suicidal tendencies, and risk factors

Element 4: Ensure physical and mental health of at-risk infants and children under the age of 4

- Training for early childhood staff in identifying risk factors for ages 4 and under
- Nurse-Family Partnership model
- Annual inventory of early childhood health services for recommendations of additional services

Element 5: Promote high academic achievement through improving classroom management and discipline

- Training and facilitation of all schools in School-wide Positive Behavior Support
- Provide opportunities for Task Force involvement in developing strategies for commitment to high standards, safety, achievement, and life long learning for matching students and families with new and existing programs and services
- Devise and implement an award system for students and schools with increased attendance
- Homeless case management numbers

Element 6: Reflect commitment to Safe Schools and Healthy Students in policies and practice from administration, staff, parents and students

- Review and revision of school policies to address school safety needs
- Review and revision of the Student Rights, Responsibilities and Behavior Code
- Project developed School Safety Report Card

Element 7: Increase active agencies to the Community Task Force for the Prevention of Violence in Schools.

- The Task Force meets monthly to discuss community resources which may include staffing of cases presented by the STARS team.

East Baton Rouge Parish Schools
Baton Rouge, LA

Safe Schools/Healthy Students is designed to implement an enhanced, coordinated, comprehensive plan of activities, programs, and services that focus on promoting healthy childhood/youth development and preventing violence and alcohol and other drug abuse.

1) Safe School Environment
   - Install a minimum of 4 security cameras in all middle and high schools.
   - Complete security gaps analysis in all schools.

2) Violence/Alcohol, Tobacco and other Drug (ATOD) Prevention and Early Intervention
   - Purchase and implement *Second Step* curriculum in all classes grades Pre-K -5.
   - Purchase and implement *Too Good for Drugs* and *Too Good for Violence* curricula for all middle schools (grades 6-8).
   - Purchase and implement *Too Good for Drugs and Violence* curriculum for every high school (grades 9-12).
   - Provide train-the-trainer and/or school level training in each of the four prevention curricula for administrators, counselors, and faculty.
   - Provide additional and refresher training as recommended by the publishers of these programs.
   - Provide yearly training for new administrators, counselors, and faculty.
   - Hire and train monitors to assure fidelity of implementation of these programs.

3) School-based Mental Health Services and Early Childhood Services
   - Hire MSW's and supervisors for school–based therapy.
   - Hire additional school counselors who attend only to mental health needs.
   - Establish system-wide screening/assessment tools and protocols.
   - Train all ***I CARE*** staff, school counselors, MSW's, and school nurses in use thereof.
   - Provide physician services and medication when not otherwise available.
   - Increase Pre-K linkages to existing community services.

4) Services for Re-entry Youth
   - Hire Bridge Coordinator to provide and monitor services for youth involved with the juvenile justice system who choose to return to school.
   - Establish policies and protocols for Juvenile Re-entry into EBR schools.

5) Community Involvement
   - Maintain involvement of the ***I CARE*** Advisory Council (composed of members of community organizations who partner with ***I CARE***) in implementation of the Baton Rouge SS/HS Comprehensive Plan through regularly scheduled meetings.
   - Meet frequently with sub-committee of partners actively participating in the grant (representatives from the Mayor's Office, the BR Police Dept, Capital Human Services District, EBRPSS).

Monroe City School District,
Monroe, LA

PROJECT ACT SAFE

PROJECT ABSTRACT

The mission of the Monroe City School District's Project ACT SAFE (Active Community Teaming for Safe Academic and Family Environments) project is to implement a sustainable, integrated, comprehensive, community-wide plan to create safe and drug-free schools and promote pro-social skills and healthy childhood development in youth in collaboration with the Monroe Police Department, Office of Youth Services, the Monroe Mental Health Center, and the ACT SAFE community action group composed of child and family serving entities in the City of Monroe and Ouachita Parish, Louisiana. Toward this end, the following major Goals and Objectives have been established with expected performance outcomes incorporated:

Goal One: Safe school environments and violence prevention activities will provide for safe and healthy havens for student progression.

Objective 1.0: Aggressive and violent student incidents within the MCSD will be decreased by 20% at selected school sites annually through increased security, intervention personnel, and access to evidence-based anti-violence curricula and programs for students and parents;

Goal Two: Alcohol, tobacco and other drug (ATOD) prevention activities will be reduced through SAMHSA model early intervention programs.

Objective 2.0: Students participating in ATOD evidence based programs will report a 20% reduction in 30-day and annual decrease in ATOD usage.

Goal Three: Students will have increased access to behavioral, social, and emotional supports.

Objective 3.0: School/community integrated student support systems (including mentoring, dropout prevention programs, after school and extended year programs) will result in a 10% increase in attendance rate, a 10% increase in graduation rates, a 20% decrease in out of school suspensions, and a 20% increase in parental involvement with student academic progression annually.

Goal Four: Students will have to high quality mental health services.

Objective 4.0: MCSD schools will demonstrate an annual 25% cumulative increase in students referred and receiving school- and community-based mental health services (2007-2011);

Goal Five: Early childhood social and emotional learning programs will increase school readiness for Pre-K children.

Objective 5.0: Access to childhood development training toward addressing cognitive, linguistic, moral, emotional social, and behavioral domains made available within MCSD Pre-K and early childhood professional care givers in the City of Monroe will result in a 10% annual increase in pre-school children entering school ready to learn.

Safe Schools/Health Students
Louisiana Summary

Monroe City School District – Monroe, LA - 2007
Total award: $5,999,980 – over 4 years

East Baton Rouge – SS/HS 2005
Total award: $8,658,108 – over 3 years

Lafayette Parish School System, Lafayette LA – 2004
Total award: $8,514,467 – over 3 years
The hurricanes delayed the implementing of the original grant. The site is expected to request and be granted a partial second no-cost year.

Research

Mental illness and suicidality after Hurricane Katrina

Ronald C. Kessler,[a] Sandro Galea,[b] Russell T. Jones,[c] & Holly A. Parker[d] on behalf of the Hurricane Katrina Community Advisory Group

Objective To estimate the impact of Hurricane Katrina on mental illness and suicidality by comparing results of a post-Katrina survey with those of an earlier survey.

Methods The National Comorbidity Survey-Replication, conducted between February 2001 and February 2003, interviewed 826 adults in the Census Divisions later affected by Hurricane Katrina. The post-Katrina survey interviewed a new sample of 1043 adults who lived in the same area before the hurricane. Identical questions were asked about mental illness and suicidality. The post-Katrina survey also assessed several dimensions of personal growth that resulted from the trauma (for example, increased closeness to a loved one, increased religiosity). Outcome measures used were the K6 screening scale of serious mental illness and mild–moderate mental illness and questions about suicidal ideation, plans and attempts.

Findings Respondents to the post-Katrina survey had a significantly higher estimated prevalence of serious mental illness than respondents to the earlier survey (11.3% after Katrina versus 6.1% before; $\chi^2_1 = 10.9$; $P < 0.001$) and mild–moderate mental illness (19.9% after Katrina versus 9.7% before; $\chi^2_1 = 22.5$; $P < 0.001$). Among respondents estimated to have mental illness, though, the prevalence of suicidal ideation and plans was significantly lower in the post-Katrina survey (suicidal ideation 0.7% after Katrina versus 8.4% before; $\chi^2_1 = 13.1$; $P < 0.001$; plans for suicide 0.4% after Katrina versus 3.6% before; $\chi^2_1 = 6.0$; $P = 0.014$). This lower conditional prevalence of suicidality was strongly related to two dimensions of personal growth after the trauma (faith in one's own ability to rebuild one's life, and realization of inner strength), without which between-survey differences in suicidality were insignificant.

Conclusion Despite the estimated prevalence of mental illness doubling after Hurricane Katrina, the prevalence of suicidality was unexpectedly low. The role of post-traumatic personal growth in ameliorating the effects of trauma-related mental illness on suicidality warrants further investigation.

Bulletin of the World Health Organization 2006;84:930-939.

Voir page 937 le résumé en français. En la página 937 figura un resumen en español.

يمكن الاطلاع على الملخص بالعربية في صفحة 938.

Introduction

Hurricane Katrina was the deadliest hurricane in the United States in seven decades and the most expensive natural disaster in American history. More than 500 000 people were evacuated. Nearly 90 000 square miles were declared a disaster area (roughly equal to the land mass of the United Kingdom).[1] More than 1600 confirmed deaths occurred and more than 1000 people remain missing.[2] The destruction caused by Hurricane Katrina has lingered much longer than that occurring after previous hurricanes.[3]

An extensive literature documents the adverse mental health effects of natural disasters.[4,5] Although these effects vary greatly, the effects of catastrophic disasters are consistently large.[6,7] For example, studies after Hurricane Andrew, which occurred in Louisiana in 1992, found that 25–50% of respondents were affected by disaster-related mental disorders.[8,9] Based on these results, and given the extraordinary array of stressors that occurred in conjunction with Hurricane Katrina (for example, bereavement, exposure to the dead and dying, personal threats to life, and the massive destruction),[10–12] we would expect Hurricane Katrina's effects on mental health to be at the upper end of the range of previous disasters.

Due to the wide geographical dispersion of the displaced population, a comprehensive assessment of the mental health of survivors of Hurricane Katrina is nonexistent. The Louisiana Department of Public Health documented substantial psychopathology among the 50 000 survivors cared for in evacuation centres shortly after the hurricane,[13] but these individuals represented less than 1% of survivors. Seven weeks after the hurricane, the United States Centers for Disease Control and Prevention (CDC) carried out a survey to assess household needs and found that half of the adults surveyed who were still living in New Orleans had clinically significant

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psychological distress;[14] no information was obtained on the much larger number of residents who had lived in New Orleans before the hurricane but who no longer live there. Two public opinion polls — one carried out jointly by Gallup, CNN and USA Today in a sample of people who sought assistance from the American Red Cross[15] and the other carried out by the New York Times among a sample from the American Red Cross' "safe list" (a list posted on the Internet with the names and contact information of survivors who were displaced by the hurricane and separated from relatives and friends)[16] — asked a handful of questions about mental health but did not attempt to assess clinical significance. A probability survey of families with children still residing in trailers (caravans) supplied by the United States Federal Emergency Management Agency (FEMA) or hotel rooms sponsored by FEMA in Louisiana as of mid-February 2006 found that 44% of adult caregivers had clinically significant psychological distress.[17] As with the earlier CDC survey of evacuation centres, though, the sampling frame represented less than 1% of the pre-hurricane residents of the affected areas.

Public health decisions cannot be based on such a narrow empirical foundation. This report presents the initial results of an ongoing tracking survey designed to provide broader coverage of the population affected by Hurricane Katrina. The first phase of the study aimed to enrol and carry out a baseline survey of mental health needs among a representative sample of adults (aged ≥ 18) who, before the hurricane, were resident in the FEMA-defined impact areas in Alabama, Louisiana and Mississippi.[18–20] Subsequent phases of the study will monitor the evolving needs of this sample in follow-up surveys. The focus of this report is on the effects of the hurricane on the prevalence and correlates of mental illness and suicidality. Before and after comparisons are approximated by using baseline data from a 2001–03 national survey that included a probability sub-sample of respondents in the two Census Divisions subsequently affected by Katrina.[21] The questions used to assess mental illness and suicidality were identical in the two surveys.

Methods

The samples

The baseline survey was the National Comorbidity Survey-Replication (NCS-R),[21] a face-to-face survey of English-speaking adults aged ≥ 18 administered between February 2001and February 2003. The NCS-R interviewed 826 people in the two Census Divisions later affected by Hurricane Katrina. The response rate in the total sample ($n = 9282$) was 70.9% but a response rate was not calculated separately for the subsample of respondents interviewed in the two Census Divisions subsequently affected by Hurricane Katrina. The NCS-R data were weighted to adjust for differential probabilities of selection and for residual discrepancies between the sample and the 2000 Census on a series of social, demographic and geographical variables. The NCS-R design is discussed in more detail elsewhere.[22]

The post-Katrina survey acted as the baseline data collection for the Hurricane Katrina Community Advisory Group. The advisory group is a representative sample of 1043 survivors of Hurricane Katrina who agreed to participate in a series of surveys over a period of several years; these surveys will track the speed and effectiveness of hurricane recovery efforts. The target population for the advisory group was English-speaking adults (aged ≥ 18) who before the hurricane had lived in the areas subsequently defined by FEMA as having been affected by Hurricane Katrina (a total of 4 137 000 adult residents in the 2000 Census spread across parts of Alabama, Louisiana and Mississippi) in either of two sampling frames: a random-digit dial telephone frame that included telephone banks working in the eligible counties (in Alabama and Mississippi) and parishes (in Louisiana) in the affected areas before the hurricane and a frame that included the telephone numbers of the roughly 1.4 million families from these same areas who had applied to the American Red Cross for assistance after the hurricane. Pre-hurricane residents of the New Orleans metropolitan area were over-sampled in both frames. Many displaced people were traced in the random-digit dial sample because telephone calls were forwarded to new addresses. The American Red Cross

Table 1. **Estimated prevalence of mental illness within the past 30 days as classified by the *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition, and prevalence of suicidality within the past 12 months in the National Comorbidity Survey-Replication (NCS-R), February 2001–February 2003, and the post-Katrina survey, 19 January–31 March 2006**

	Survey		Odds ratio post-Katrina survey *vs* NCS-R[b]	χ^2_1	*P* value
	NCS-R[a]	Post-Katrina[a]			
Mental illness (30-day prevalence)[c]					
Serious mental illness	6.1 (91) (0.7)	11.3[d] (113) (1.7)	2.0[d] (1.3–3.0)	10.9[d]	0.001
Mild–moderate mental illness	9.7 (131) (1.0)	19.9[d] (206) (2.1)	2.3[d] (1.6–3.3)	22.5[d]	< 0.001
Any mental illness	15.7 (222) (1.2)	31.2[d] (319) (2.4)	2.4[d] (1.8–3.2)	35.9[d]	< 0.001
Suicidality (12-month prevalence)					
Ideation	2.8 (45) (0.4)	2.9 (30) (0.9)	1.0 (0.5–2.1)	0.0	0.96
Plan	1.1 (19) (0.3)	0.7 (4) (0.5)	0.6 (0.1–2.9)	0.4	0.54
Attempt	0.6 (10) (0.2)	0.7 (5) (0.5)	1.1 (0.2–5.3)	0.0	0.88
Total	826	1043	1869		

[a] Values are the percentage (number) (standard error) of respondents who met criteria for the outcome. All percentages and standard errors are based on weighted data; numbers are based on unweighted data. The number in the last row is the denominator for all calculations of percentage.

[b] Values are the odds ratio (95% confidence interval) of the outcome in the post-Katrina survey (numerator) versus the NCS-R survey (denominator).

[c] Prevalence of mental illness is estimated using scores from the K6 screening scale. See text for details.

[d] Difference between the two surveys is significant at the 0.05 level with a two-sided test.

Table 2. **Prevalence of first onset of suicidality during the past year among respondents with probable mental illness during the past 30 days as classified by the *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition, in the National Comorbidity Survey-Replication (NCS-R), February 2001–February 2003, and the post-Katrina survey, 19 January–31 March 2006[a]**

Suicidality	Survey		Odds ratio post-Katrina survey vs NCS-R[c]	χ^2_1	*P* value
	NCS-R[b]	Post-Katrina[b]			
Ideation	8.4 (15/147) (2.3)	0.7[d] (4/255) (0.4)	0.1[d] (0.0–0.3)	13.1	< 0.001
Plan	3.6 (9/191) (1.3)	0.4[d] (2/287) (0.3)	0.1[d] (0.0–0.6)	6.0	0.014
Attempt	2.3 (5/183) (1.2)	0.8 (4/285) (0.5)	0.3 (0.1–1.6)	1.9	0.17

[a] Prevalence of mental illness is estimated using scores from the K6 screening scale. See text for details.
[b] Values are the percentage (numerator/denominator) (standard error) of respondents who met criteria for the outcome described in the row among those with probable mental illness and no past history of the outcome. All percentages and standard errors are based on weighted data. The numerator and denominator are based on unweighted data.
[c] Values are the odds ratio (95% confidence interval) of the estimated outcome in the post-Katrina survey (numerator) versus the NCS-R survey (denominator).
[d] Difference between the two surveys is significant at the 0.05 level with a two-sided test.

sample also included cell phones (mobile phones). The small proportion of evacuees still living in hotels at the time of the survey was represented through a supplemental sample of hotels that housed evacuees supported by FEMA.

The overlap of the two sampling frames was handled in two ways: by confining numbers from the American Red Cross frame to those not in the random-digit dial frame (for example, cell phones and exchanges outside the hurricane area) and by down-weighting those respondents selected by the random-digit dial frame who reported receiving assistance from the American Red Cross and had additional phone numbers outside the random-digit dial frame. Respondents from the two frames were combined by weighting the participating households in the American Red Cross sample to their estimated population proportion based on estimates of the proportion of Red Cross numbers outside the random-digit dial frame and the proportion of random-digit dial respondents who asked for assistance from the American Red Cross. Respondents in the hotel sample were included without a household weight because they were selected proportionally.

The final sample of 1043 advisory group members was recruited from an initial sample that we estimate to have included 3835 eligible households living in the area before the hurricane and selected across the two frames. We were able to contact and determine to be eligible 2489 of these households. The estimate of 3835 eligible households in the sample is nothing more than an estimate because we were unable to contact a large proportion of this number even after many attempts, leading us to subsample hard-to-reach cases for especially intensive tracing efforts and to estimate rather than to confirm the proportion of eligible households. If the estimate of 3835 is correct, the 2489 households that we contacted and determined to be eligible represent a 64.9% screening response rate. This response rate is lower than that found in typical household surveys because of the geographical dislocation of the population after Hurricane Katrina and the attendant difficulties in tracing and contacting people in this population. For example, some of the phone numbers in the American Red Cross frame were for rooms in hotels where a family was living temporarily at the time they sought assistance. We were able to trace some of these households when they left forwarding information, but often it was not possible to trace households, and this led to a low screening response rate.

A short screening questionnaire was administered to a randomly selected respondent in each of the households contacted for the screening sample; this questionnaire was used to determine eligibility for the advisory group. It included questions about the location of the respondent's residence before the hurricane, the extent of the respondent's exposure to the hurricane, the respondent's current mental health status and basic demographic information. Once these screening questions were answered, respondents who were determined to be eligible to participate by virtue of the location of their residence before the hurricane were introduced to the purposes and goals of the advisory group. They were also informed that agreeing to join the advisory group required making a commitment to participate in a number of follow-up surveys over a period of several years and providing information that would allow us to contact them if they moved house during the study period. We asked respondents to consider these requirements carefully before agreeing to participate because we wanted the advisory group to include only those respondents who would continue to participate in the repeated tracking surveys.

The baseline advisory group survey was administered to the 1043 respondents who agreed to join the group: the results of the survey are presented in this report. These respondents represent 41.9% (1043/2489) of those who participated in the screening questionnaire survey. Although this is a relatively low response rate in comparison to typical one-shot telephone surveys, it is considerably higher than the response rates obtained in more conventional consumer panel surveys. It is noteworthy that responses to the screening questionnaire were quite similar among those who agreed to join the advisory group and those who declined. A weight was nonetheless applied to the advisory group sample. This was done to adjust for observed differences between advisory group participants and non-participants in responses made to the screening questionnaire: there was a somewhat higher level of trauma exposure and a somewhat higher prevalence of hurricane-related psychological distress among non-participants. In addition, a within-household probability-of-selection weight was applied to the advisory group sample to adjust for the fact that in each eligible

household only one member was invited to join the advisory group. In addition, a post-stratification weight was applied to the data to adjust for residual discrepancies between the advisory group and the 2000 Census population in the affected areas on a range of social, demographic and pre-hurricane housing variables. Finally, the consolidated advisory group sample weight was trimmed to increase design efficiency based on evidence that trimming did not significantly affect prevalence estimates of outcome variables.

Measures

The K6 scale of non-specific psychological distress[23,24] was used to screen for anxiety and mood disorders occurring within 30 days of the interview as defined by the *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition (DSM-IV). The K6 is the most widely used mental health screening scale in the United States.[25,26] Scores on the scale range from 0 to 24. Based on previous K6 validation,[24] scores in the range of 13–24 were classified probable serious mental illness, those in the range 8–12 were classified probable mild–moderate mental illness, and those in the range 0–7 were classified as probable non-cases. A small clinical reappraisal study was carried out with five respondents selected randomly from each of the three categories (serious mental illness, mild–moderate mental illness, non-case). A trained clinical interviewer administered the non-patient version of the Structured Clinical Interview for DSM-IV,[27] blinded to the category of each of the 15 respondents. The syndromes assessed were DSM-IV major depressive episode, panic disorder, generalized anxiety disorder, post-traumatic stress disorder, agoraphobia, social phobia and specific phobia. Serious mental illness was defined as a DSM-IV diagnosis with a global assessment of functioning[28] score of 0–60 and mild–moderate mental illness as a DSM-IV diagnosis with a global assessment of functioning of ≥ 61. K6 classifications were confirmed for 14 of 15 respondents, the exception being a respondent classified as having severe mental illness by the K6 but mild–moderate mental illness by the structured interview (based on a global assessment of functioning score of 65). Suicidality was assessed by questions about lifetime occurrence of suicidal thoughts, plans and attempts; age at first occurrence of each of these outcomes; and recency of each outcome. Respondents were classified as first-onset cases in respect of each of these outcomes if they reported that the outcome occurred for the first time in their life within the past 12 months (the most recent time frame assessed in the NCS-R).

Sociodemographic correlates assessed included age, sex, race and ethnicity, family income, education, marital status and employment status. Income was coded into a dichotomy of either below the population median for the income-per-family-member ratio versus at or above the median for that ratio.

We also included measures of several dimensions of personal growth occurring after the hurricane (post-traumatic personal growth) that have been found in previous research to occur after exposure to trauma and to facilitate psychological adjustment by making sense of the trauma or finding some positive aspect to the trauma.[29,30] We focus on five such dimensions based on their presence in the two most commonly used inventories of post-traumatic personal growth:[31,32] post-traumatic increases in emotional closeness to loved ones, faith in the ability to rebuild one's life, spirituality or religiosity, meaning or purpose in life, and recognition of inner strength or competence.

Analysis

Differences in the estimated prevalence of mental illness and suicidality were compared between the NCS-R and the post-Katrina baseline advisory group survey. Sociodemographic variation in between-survey differences was assessed using pooled logistic regression equations predicting outcomes from a 0–1 variable for survey (0 = NCS-R, 1 = post-Katrina survey), the sociodemographic variables, and interactions between the survey and sociodemographic variables. Logistic regression coefficients and their standard errors were exponentiated to create odds ratios (ORs) and their 95% confidence intervals. The role of post-traumatic growth was examined in a subgroup analysis. Because both surveys featured weighting and geographical clustering (NCS-R), analyses used the Taylor series linearization method.[33] Multivariate significance was calculated using Wald χ^2 tests based on design-corrected coefficient variance–covariance matrices. Statistical significance was evaluated using two-sided 0.05 level tests.

Findings

Prevalence of mental illness and suicidality

The proportion of respondents estimated to have serious mental illness is significantly higher among those in the post-Katrina sample than the NCS-R (11.3% after Katrina versus 6.1% before; $\chi^2_1 = 10.9$; $P = 0.001$). The same is true for the proportion estimated to have mild–moderate mental illness (19.9% after Katrina versus 9.7% before; $\chi^2_1 = 22.5$; $P < 0.001$) and those estimated to have any mental illness (31.2% after Katrina versus 15.7% before; $\chi^2_1 = 35.9$; $P < 0.001$), with ORs in the range 2.0–2.4 (Table 1). The difference between the surveys in suicidality is not significant either for ideation (2.9% after Katrina versus 2.8% before; $\chi^2_1 = 0.0$; $P = 0.96$), plans (0.7% after Katrina versus 1.1% before; $\chi^2_1 = 0.4$ $P = 0.54$) or attempts (0.7% after Katrina versus 0.6% before; $\chi^2_1 = 0.0$; $P = 0.88$).

Suicidal ideation, plans and attempts during the 12 months before the interview were reported in both samples almost entirely by people estimated to have mental illness (results available on request). As a result, the higher estimated prevalence of mental illness but not suicidality in the post-Katrina sample implies that the conditional prevalence of suicidality given probable mental illness is lower among those in the post-Katrina sample than among those sampled before the hurricane. More detailed analysis found that this was especially true for the first onset of suicidality during the past year among respondents with probable mental illness (Table 2). These differences are significant for ideation (0.7% after Katrina versus 8.4% before; $\chi^2_1 = 13.1$; $P < 0.001$) and plans (0.4% after Katrina versus 3.6% before; $\chi^2_1 = 6.0$; $P < 0.014$) but not for attempts (0.8% after Katrina versus 2.3% before; $\chi^2_1 = 1.9$; $P = 0.17$).

Sociodemographic correlates of mental illness and suicidality

Significant sociodemographic correlates of serious mental illness among those in the post-Katrina sample included being non-Hispanic white, not being married before the hurricane, and being classified as having "other" employment status before the hurricane (this mainly included unemployed or disabled people) (Table 3).

Table 3. **Sociodemographic predictors of probable serious mental illness during the past 30 days as classified by the *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition, and of suicidal ideation among people with probable mental illness in the National Comorbidity Survey-Replication (NCS-R), February 2001–February 2003, and the post-Katrina survey, 19 January–31 March 2006[a]**

	Category			
	Serious mental illness[b,c]		Suicidal ideation[b,c]	
Variable	Main effects	Interaction with Hurricane Katrina	Main effects	Interaction with Hurricane Katrina
Age				
18–39	1.4 (0.4–4.7)	0.4 (0.1–1.9)	11.4 (2.5–52.4)	4.5 (0.8–26.3)
40–59	2.2 (0.8–6.5)	0.3 (0.1–1.7)	–[d]	–[d]
≥ 60	1.0	1.0	1.0	1.0
$\chi^2_{2/1}$ (*P* value)	2.7 (0.26)	1.7 (0.42)	9.7[e] (0.002)	2.8 (0.09)
Sex				
Female	1.9 (0.9–4.1)	0.9 (0.3–2.7)	1.4 (0.3–7.5)	0.8 (0.1–5.8)
Male	1.0	1.0	1.0	1.0
χ^2_1 (*P* value)	2.6[e] (0.11)	0.0 (0.90)	0.2 (0.66)	0.0 (0.86)
Race				
Non-Hispanic white	1.0	1.0	1.0	1.0
Non-Hispanic black	0.5[e] (0.2–0.9)	1.8 (0.7–5.0)	0.2[e] (0.0–0.9)	0.2 (0.0–1.0)
Hispanic or other	0.1[e] (0.0–0.5)	0.4 (0.8–2.4)	0.0[e] (0.0–0.4)	0.0[e] (0.0–0.5)
χ^2_3 (*P* value)	10.3[e] (0.006)	2.7 (0.26)	8.5[e] (0.014)	7.8[e] (0.20)
Pre-hurricane income				
Low or low-average	1.6 (0.6–4.5)	1.6 (0.6–4.4)	1.6 (0.2–10.6)	4.6 (0.7–31.2)
High-average or high	1.0	1.0	1.0	1.0
χ^2_1 (*P* value)	0.9 (0.35)	0.8 (0.36)	0.2 (0.64)	2.4 (0.12)
No. of years of education				
0–11 (less than high school)	4.1 (0.9–18.2)	2.6 (0.6–11.7)	1.4 (0.1–13.4)	6.7 (0.6–70.5)
12 (high school)	1.9 (0.5–7.2)	1.0 (0.2–4.6)	0.6 (0.1–3.8)	1.5 (0.2–14.5)
13–15 (some university)	2.4 (0.7–8.4)	1.1 (0.2–4.8)	1.6 (0.3–7.8)	2.1 (0.2–17.6)
≥16 (university graduate)	1.0	1.0	1.0	1.0
χ^2_3 (*P* value)	4.2 (0.24)	3.5 (0.32)	1.6 (0.67)	2.8 (0.43)
Pre-hurricane marital status				
Previously married	7.4[e] (3.6–15.1)	3.7[e] (1.4–9.5)	1.8 (0.4–8.7)	1.1 (0.2–7.8)
Never married	8.8[e] (3.3–23.7)	6.5[e] (2.1–19.8)	1.3 (0.3–6.4)	0.7 (0.1–5.6)
Married or cohabiting	1.0	1.0	1.0	1.0
χ^2_2 (*P* value)	33.7[e] (<.001)	13.4[e] (0.001)	0.5 (0.77)	0.1 (0.94)
Pre-hurricane employment status				
Employed	1.0	1.0	1.0	1.0
Retired	0.9 (0.2–3.5)	1.3 (0.2–9.4)	–[f]	–[f]
Student	0.4 (0.0–4.5)	0.5 (0.0–8.4)	–[f]	–[f]
Homemaker	1.3 (0.4–4.7)	0.7 (0.1–3.3)	2.8 (0.3–25.9)	0.5 (0.0–5.9)
Other	3.3[e] (1.6–6.6)	0.9 (0.4–2.4)	2.6 (0.6–11.4)	0.8 (0.1–4.3)
$\chi^2_{4/2}$ (*P* value)	14.4[e] (0.006)	0.6 (0.97)	1.6 (0.46)	0.3 (0.85)
Total[g]	1043	1869	286	479

[a] Prevalences of serious mental illness within the past 30 days and any mental illness were estimated using scores on the K6 screening scale. See text for details.
[b] The main effects model is based on a single logistic regression equation that includes all sociodemographic data and is estimated only in the post-Katrina sample (1043 respondents in the total sample used to predict serious mental illness and 286 with any mental illness to predict suicidal ideation). The interaction model is estimated in the two samples combined (1043 plus the 826 NCS-R respondents, for a total of 1869 to predict serious mental illness; 286 plus the 193 NCS-R respondents, for a total of 479 to predict suicidal ideation), with a dummy predictor variable for sample (post-Katrina or NCS-R), all sociodemographic data, and interactions between the dummy variable (post-Katrina coded as 1 and NCS-R coded as 0) and sociodemographic data. Sample sizes reported here are unweighted.
[c] Values are odds ratio (95% confidence interval) of the estimated outcome in the post-Katrina survey (numerator) versus the NCS-R survey (denominator). These values are based on weighted data.
[d] Age categories were collapsed to 18–39 and ≥ 40 owing to sparse data for estimating the relatively rare outcome.
[e] Significant at the 0.05 level with a two-sided test.
[f] In the subsample of respondents estimated to have a mental illness, no student or retired person reported suicidal ideation in either survey.
[g] Unweighted sample size.

Table 4. **Proportion of participants in post-Katrina survey, 19 January–31 March 2006, who reported post-traumatic personal growth in five domains as a function of probable mental illness during the past 30 days as classified by the *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition.** (See text for further details.)

Domain[a]	Total[b]	Subsamples as function of mental illness[c]				χ^2_2	*P* value
		Serious mental illness	Mild–moderate mental illness	Any mental illness	No mental illness		
Became closer to loved ones	81.6 (824) (2.1)	69.3 (83) (8.6)	83.0 (160) (4.3)	78.0 (243) (4.3)	83.2 (581) (2.2)	2.2	0.34
Developed faith in ability to rebuild life	95.6 (984) (1.0)	85.5 (97) (5.2)	96.7 (189) (1.2)	92.6 (286) (2.0)	97.0 (698) (1.1)	4.6	0.10
Became more spiritual or religious	66.8 (655) (2.5)	72.7 (88) (6.5)	72.1 (141) (5.6)	72.3 (229) (4.4)	64.3 (426) (3.0)	2.4	0.31
Found deeper meaning and purpose in life	75.2 (752) (2.3)	82.1 (90) (5.6)	84.0 (163) (4.2)	83.3 (253) (3.4)	71.6 (499) (2.9)	6.7[d]	0.037
Discovered inner strength	69.5 (707) (2.5)	71.2 (81) (8.2)	86.9 (162) (3.6)	81.2 (243) (4.0)	64.2 (464) (3.0)	18.3[d]	<0.001
Total	1043	113	206	319	724		

[a] Participants were asked the extent to which their experiences in the hurricane led them to changes in each domain. Response options were "a lot", "some", "a little" and "not at all."

[b] Values are percentage (number) (standard error). The percentage and standard error are based on weighted data and the number on unweighted data.

[c] Prevalence of mental illness is estimated using scores from the K6 screening scale. See text for details.

[d] Significant at the 0.05 level with a two-sided test.

The only one of these associations that differs significantly when the post-Katrina sample was compared with the NCS-R is a higher prevalence of serious mental illness among people who were not married after Katrina than those who were married before. Suicidal ideation was the focus of a subsequent analysis of suicidality because suicide plans and attempts were too uncommon to be studied with adequate statistical power. The only statistically significant sociodemographic correlates of ideation were being 18–39 years of age and non-Hispanic white (Table 3). The second of these two associations is significantly stronger among those in the post-Katrina sample than those in the NCS-R.

Post-traumatic growth and suicidal ideation

Most respondents to the post-Katrina survey reported the following types of post-traumatic growth: becoming closer to their loved ones (81.6%; 824/1043 in the unweighted data), developing faith in one's own abilities to rebuild one's life (95.6%; 984/1043 in the unweighted data), becoming more spiritual or religious (66.8%; 655/1043 in the unweighted data), finding deeper meaning and purpose in life (75.2%; 752/1043 in the unweighted data) and discovering inner strength (69.5%; 707/1043 in the unweighted data) (Table 4). The probabilities of two of these five vary significantly with mental illness: there is a comparatively low probability of finding deeper meaning and purpose in life among people estimated to have mental illness and there is a comparatively high probability of discovering inner strength among people estimated to have mild–moderate mental illness.

Two of the five dimensions of post-traumatic growth are significantly related to a low prevalence of suicidal ideation among people thought to have mental illness: belief in their own ability to recover and discovery of inner strength (Table 5). The lower prevalence of suicidal ideation in the post-Katrina sample than the NCS-R is limited to those who reported these two aspects of post-traumatic growth, among whom the OR compared with the NCS-R is a statistically significant 0.2. In comparison, the prevalence of suicidal ideation among mentally ill respondents to the post-Katrina survey who had neither of these cognitions does not differ significantly from the prevalence among comparable respondents in the NCS-R, with a statistically insignificant OR of 1.1.

Conclusion

The two-survey comparison method is an inexact way to estimate the effects of Hurricane Katrina because the surveys differed in their sampling frames (all households in two Census Divisions in the NCS-R versus households contactable by telephone in areas within these divisions affected by the hurricane in the post-Katrina survey), mode of data collection (face-to-face versus telephone interviews) and response rates. An additional limitation concerns the K6. Although good concordance with clinical interviews has been consistently documented in published reports,[23,24] the K6 is merely a screening tool and not a clinical interview.

Notwithstanding these limitations, the fact that the estimated prevalence of serious mental illness and mild–moderate mental illness doubled after Hurricane Katrina is consistent with other evidence of the adverse effects on mental health of major disasters.[34,35] The sociodemographic correlates are also largely consistent with previous research.[36,37] That the associations among sociodemographic correlates were largely the same across the samples suggests that the adverse mental health effects of Hurricane Katrina were equally distributed across broad segments of the population. Although an analysis of treatment patterns goes well beyond the scope of this report, these results document a high and widely dispersed need for mental health treatment.

Our most striking finding is the lower conditional likelihood of suicidality among people believed to have mental illness after Hurricane Katrina compared with people surveyed before. This finding is not unprecedented. A cross-national epidemiological survey

Table 5. **Comparison of prevalence of suicidal ideation during the past year among those with probable mental illness during the past 30 days and post-traumatic increase in faith in own ability to rebuild one's life and discovery of inner strength compared with those without post-traumatic increase, post-Katrina survey, 19 January–31 March 2006, in relation to prevalence of suicidal ideation among those with probable mental illness during the past 30 days in the National Comorbidity Survey-Replication (NCS-R), February 2001–February 2003[a]**

Faith in own ability and discovery of inner strength	Survey		Odds ratio post-Katrina survey *vs* NCS-R[c]	χ^2_1	*P* value
	NCS-R[b]	Post-Katrina[b]			
Yes	14.7 (38/222) (2.4)	2.9 (13/199) (1.0)	0.2 (0.1–0.4)	18.9[d]	< 0.001
No	14.7 (38/222) (2.4)	16.5 (14/120) (6.8)	1.1 (0.4–3.2)	0.1	0.80
Combined	14.7 (38/222) (2.4)	7.0 (27/319) (2.3)	0.4 (0.2–1.0)	4.2[d]	0.040

[a] Prevalence estimated using scores from the K6 screening scale. See text for details.
[b] Values are percentage (numerator/denominator) (standard error). The percentage and standard error are based on weighted data. The numerator and denominator are based on unweighted data.
[c] Values are odds ratio (95% confidence interval) of the estimated outcome in the post-Katrina survey (numerator) versus the NCS-R survey (denominator).
[d] Difference between the two surveys is significant at the 0.05 level with a two-sided test.

of suicidal ideation found that in Beirut during the first Lebanon–Israel war there was a lower prevalence of suicidal ideation than in any other country studied despite Beirut having a higher prevalence of depression than virtually any other study site.[38] While post-hoc methodological interpretations can be constructed (for example, that mental illness associated with exposure to trauma might have a lower intensity that is not detected by standard measures), they seem implausible in light of independent evidence that the severity and impairment of mental illness occurring after disasters are similar when compared with those occurring at other times.[39,40]

A more plausible explanation is that the effects of increased mental illness after Hurricane Katrina on suicidality were offset by protective factors activated by the hurricane. Although this possibility has not been studied in previous trauma studies, post-traumatic personal growth in areas such as self-efficacy,[41] optimism,[30] hope[42] and perceived social support[43] have been documented after disasters, and these changes have been linked to low levels of post-disaster distress.[44] Our findings go beyond these earlier results, though, to suggest that some dimensions of post-traumatic personal growth might be protective against suicidality among people with clinically significant mental illness. It is noteworthy that the indicators of post-traumatic growth were not strongly related to our estimates of mental illness, which means that a great many survivors of Katrina are, understandably, depressed by their losses and anxious about their future despite experiencing post-traumatic personal growth. However, the suicidality often associated with these syndromes in the general population is much lower among people in the post-Katrina sample who were able to develop a belief in their ability to rebuild their life and a perception of inner strength in the wake of the hurricane. The causal processes underlying this pattern presumably involve the creation of positive orientations towards the future that provide psychological scaffolding that protects against the suicidality often associated with extreme distress. Although processes of this sort have long been discussed in the psychoanalytic literature,[45,46] the current study is, to our knowledge, the first to provide quantitative evidence regarding such a pattern in an epidemiological sample of a population that has survived a disaster.

This finding suggests that further systematic investigation of post-traumatic personal growth might be useful in guiding public health efforts delivered through the mass media in the aftermath of disasters. Research has suggested that public health messages play an important part in affecting psychological reactions to disasters.[47–49] The promotion of positive cognitions might be an important pathway for these effects. Systematic research to explore this possibility is needed. In a more immediate way, this finding documents a psychological strength in the population affected by Hurricane Katrina that is, at least temporarily, linked to an unexpectedly low prevalence of suicidality. It is important for public health officials to recognize, though, that this low prevalence of suicidality might be temporary. For example, if the feelings of inner strength reported by so many respondents are linked to an expectation that the practical problems of living created by the hurricane will soon be resolved, and if these expectations are not met as time goes on, one could imagine that the positive cognitions will erode and be replaced with a sense of hopelessness that, in the presence of the high estimated levels of mental illness found here, could lead to a substantial increase in suicidality. The finding of a low prevalence of suicidality, then, should be considered evidence of a short-term postponement rather than of a permanent absence of suicidality in this population. ■

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Résumé

Troubles mentaux et tendances suicidaires après le passage du cyclone Katrina

Objectif Estimer l'impact du cyclone Katrina sur la santé mentale et les tendances suicidaires par comparaison des résultats d'une enquête postérieure au passage de ce cyclone avec ceux d'une enquête réalisée auparavant.

Méthodes Dans le cadre de l'enquête National Comorbidity-Survey Replication, réalisée de février 2001 à février 2003, les enquêteurs ont interrogé 826 adultes vivant dans les divisions de recensement ultérieurement touchées par le cyclone. Dans l'enquête effectuée après le passage de Katrina, des entretiens ont été menés avec 1043 adultes constituant un nouvel échantillon de personnes vivant dans la même zone avant le désastre. Ces entretiens comprenaient des questions identiques au sujet des troubles mentaux et des tendances suicidaires. L'enquête post-Katrina a aussi permis d'évaluer plusieurs évolutions de la personnalité consécutives au traumatisme lié au cyclone (rapprochement avec une personne aimée, religiosité accrue, par exemple). L'échelle d'évaluation du degré de souffrance morale K6, permettant de détecter les maladies mentales graves et les troubles mentaux légers à modérés, ainsi que des questionnaires portant sur les idées, les projets et les tentatives de suicide, ont servi à mesurer les résultats.

Résultats Chez les personnes interrogées dans le cadre de l'enquête post-Katrina, la prévalence des troubles mentaux graves a été estimée à une valeur nettement plus élevée que chez les personnes interrogées dans l'enquête antérieure (11,3 % après Katrina contre 6,1 % avant le passage du cyclone; $\chi^2_1 = 10,9$; $p < 0,001$), tout comme celle des troubles mentaux légers à modérés (19,9 % après Katrina contre 9,7 % avant le passage du cyclone; $\chi^2_1 = 22,5$; $p < 0,001$). Néanmoins parmi les personnes évaluées comme atteintes d'un trouble mental, la prévalence des idées et des projets suicidaires s'est révélée notablement plus faible dans l'enquête post-Katrina que dans l'enquête antérieure (prévalence des idées suicidaires : 0,7 % après le passage de Katrina contre 8,4 % auparavant, $\chi^2_1 = 13,1$; $p < 0,001$; prévalence des projets de suicide : 0,4 % après Katrina contre 3,6 % auparavant ; $\chi^2_1 = 6,0$; $p < 0,014$). Une forte corrélation a été relevée entre cette baisse conjoncturelle de la prévalence des tendances suicidaires et deux facettes du développement personnel après le traumatisme (la foi en sa propre capacité à reconstruire sa vie et la prise de conscience de sa force interne), les différences relatives aux tendances suicidaires étant non significatives entre les deux enquêtes si l'on fait abstraction de l'influence de ces deux paramètres.

Conclusion Bien que la prévalence estimée des troubles mentaux ait doublé après le passage du cyclone Katrina, celle des tendances suicidaires s'est avérée étonnamment faible. Le rôle du développement personnel post-traumatique dans l'amélioration de l'impact des troubles mentaux d'origine traumatique en termes de tendances suicidaires mérite une étude plus approfondie.

Resumen

Enfermedades mentales y tendencias suicidas tras el huracán Katrina

Objetivo Estimar el impacto del huracán Katrina en las enfermedades mentales y las tendencias suicidas comparando los resultados de dos encuestas realizadas antes y después del huracán.

Métodos En el marco del National Comorbidity Survey-Replication, realizado entre febrero de 2001 y febrero de 2003, se entrevistó a 826 adultos de las Divisiones del Censo que luego se verían afectadas por el Katrina. En la encuesta realizada tras el huracán se entrevistó a una nueva muestra de 1043 adultos que vivían en la misma zona afectada. Se formularon las mismas preguntas sobre las enfermedades mentales y las tendencias suicidas. En la encuesta realizada tras el Katrina se evaluaron también varias dimensiones del desarrollo personal relacionadas con el trauma sufrido (por ejemplo una relación más estrecha con un ser querido, o una mayor religiosidad). Los indicadores de resultados empleados fueron la escala de cribado K6 de enfermedades mentales graves y enfermedades mentales leves/moderadas y diversas preguntas sobre los pensamientos, planes e intentos de suicidio.

Resultados Entre las personas encuestadas tras el paso del Katrina se observó una prevalencia estimada significativamente mayor de enfermedades mentales graves (11,3% después del Katrina, frente a 6,1% antes de la catástrofe, $\chi^2_1 = 10,9$; $P < 0,001$) y enfermedades mentales leves/moderadas (19,9% después del huracán, frente al 9,7% anterior; $\chi^2_1 = 22,5$; $P < 0,001$). Entre los encuestados que se estimó que tenían enfermedades mentales, sin embargo, la prevalencia de ideas y planes suicidas fue significativamente menor en la encuesta realizada tras el Katrina (pensamientos suicidas: 0,7% después, frente a 8,4% antes; $\chi^2_1 = 13,1$; $P < 0,001$; planes de suicidio: 0,4% después, frente a 3,6% antes; $\chi^2_1 = 6,0$; $P = 0,014$). Esta menor prevalencia condicional de las tendencias suicidas estaba fuertemente relacionada con dos dimensiones del desarrollo personal tras el trauma: la confianza en la propia capacidad para reconstruir la vida, y una sensación de fortaleza interior; sin dichos factores las diferencias entre las dos encuestas serían desdeñables.

Conclusión Aunque la prevalencia estimada de enfermedades mentales se duplicó tras el huracán Katrina, la prevalencia de tendencias suicidas fue inesperadamente baja. La contribución del desarrollo personal postraumático a la mejora de los efectos de las enfermedades mentales relacionadas con el trauma en las tendencias suicidas debería ser objeto de nuevas investigaciones.

ملخص

المرض النفسي والانتحار بعد إعصار كاترينا

الهدف: تقييم تأثير إعصار كاترينا على المرض النفسي والانتحار، وذلك بمقارنة نتائج المسح تلو إعصار كاترينا مع نتائجه قبل ذلك.

الطريقة: في سياق نتائج المسح الوطني للمراضة المشتركة، والذي أجري بين شباط/فبراير 2001 وشباط/فبراير 2003، استجوبنا 826 بالغاً في أقسام تعداد السكان، ممن أصيبوا بوقت لاحق بإعصار كاترينا، ثم استجوبنا في المسح التالي لإعصار كاترينا عينة جديدة تتألف من 1043 بالغاً ممن عاشوا في نفس المنطقة قبل الإعصار. وقد سئلت في كلا المسحين أسئلة متماثلة حول المرض النفسي والانتحار. وقيَّمنا في المسح التالي للإعصار أيضاً أبعاداً مختلفة للنماء الشخصي الذي نتج عن الرضح (منها على سبيل المثال ازدياد التقارب مع شخص محبوب، وازدياد الميل للتدين)، أما الحصائل المقاسة التي استخدمت فقد كانت سلم قياس لمسح الأمراض النفسية والأمراض النفسية الخفيفة والمتوسطة يتألّف من 6 درجات مع أسئلة حول أفكار الانتحار والتخطيط له ومحاولة اقترافه.

الموجودات: لقد كان للمستجيبين للمسح الذي أجري بعد إعصار كاترينا معدلات ذات تقديرات أعلى لانتشار الأمراض النفسية الوخيمة أكثر مما لدى المستجيبين للمسح الذي أجري قبل إعصار كاترينا (فقد كان معدل الانتشار قبل إعصار كاترينا 6.1% وأصبح بعده 11.3%، وكان خي مربع 10.9 وكانت قوة الاحتمال تزيد عن 0.001) وينطبق ذلك أيضاً على الأمراض النفسية الخفيفة والمتوسطة (فقد كانت قبل إعصار كاترينا 9.7% وأصبحت بعده 19.9%، وكان خي مربع 22.5، وقوة الاحتمال تزيد عن 0.001). وقد كان من بين المستجيبين ممن يقدر بإصابته بمرض نفسي، من كانت لديه أفكار وخطط الانتحار أخفض بشكل ملحوظ بعد إعصار كاترينا (فقد بلغت أفكار الانتحار 0.7% وخطط الانتحار 0.4%) مما كانت عليه قبله (حين كانت أفكار الانتحار 8.4% وخي مربع 13.1%، وقوة احتمال أقل من 0.001، وبلغت خطط الانتحار 0.4 وخي مربع 6.0 وقوة الاحتمال 0.014). وقد كان هذا الانخفاض المشروط بمعدلات الانتحار مرتبطاً ببُعْدَيْن من أبعاد النماء الشخصي التالي للرضح (وهما الاعتقاد بالقدرة الذاتية للشخص على بناء حياته الشخصية، والتحقق من قواه الداخلية)، ودون هذين البعدين لم يكن هناك اختلاف ملحوظ بين المسحين.

الاستنتاج: رغم أن معدل الانتشار المقدَّر للأمراض النفسية قد تضاعف بعد إعصار كاترينا، فإن معدل انتشار الانتحار كان ضئيلاً لدرجة يصعب توقعها، ويستحق دور النمو الشخصي التالي للرضح في تخفيف تأثيرات الأمراض النفسية المرتبطة بالرضح المزيد من الدراسات.

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CAPITAL AREA HUMAN SERVICES DISTRICT
ESTABLISHED LEGISLATIVELY IN 1996

THE LOUISIANA MODEL for a LOCAL SYSTEM OF CARE

ADDICTIVE DISORDERS • DEVELOPMENTAL DISABILITIES • MENTAL HEALTH

CAPITAL AREA HUMAN SERVICES DISTRICT

A REPORT TO THE COMMUNITY

THE

Executive Director Message

JAN KASOFSKY, PHD

JAN KASOFSKY, PHD
EXECUTIVE DIRECTOR

For more than 10 years the Capital Area Human Services District (CAHSD) has addressed the complex human services needs faced by the communities within our seven-parish service area. Our connection to these urban and rural communities and the partnerships that we have built and nurtured define the commitment of this agency.

The District model is based on local governance. An executive director is hired by a board of locally nominated citizens who, in CAHSD, are appointed by the Governor. The executive director is held accountable by all existing governmental monitoring and accrediting bodies, which govern public agencies, and also by the citizen board. The model's designation as a political subdivision supports more business-like processes. These processes include the ability to collect and retain fees, grants and funds for reinvestment, streamlined contract approval and payment, and hiring flexibility.

In a day and time when many are questioning the actions of government, the Capital Area Human Services District proudly stands recognized for serving its community and clients/consumers well. Early in its implementation, CAHSD began decentralizing its services and service contracts so that access in many rural parishes was made possible for the first time. Where there previously had been no local satellites or clinics for people in need of clinic-based services, now CAHSD is proud to note that each of our seven parishes has clinic-based services for addictive disorders and mental health. Children in our seven parishes are now receiving behavioral health care at over 27 schools where there had only been four schools, and our community-based inclusive recreation programs for children and adolescents with developmental disabilities now serves as a national model.

This agency has developed and implemented many services and supports that not only serve as a model for the state, but for the nation. It received national recognition for its response to Hurricane's Katrina and Rita due to its establishment of integrated medical and behavioral health mobile teams and for serving the congregate evacuee sites with a locally developed multi-discipline, site-specific deployment process.

CAHSD continues to lead the region in its effective planning and response to the ongoing aftermath of the hurricane disasters of 2005 by having established a collaborative of service providers--including emergency department physicians and administrators, "First Responders" (law enforcement, EMS), coroners, and other health professionals for the seven parish area--who developed, implemented and now oversee, a crisis services continuum to prevent and diminish the need for emergency behavioral health services and to address recidivism.

Our strong ties in the diverse communities we serve have provided us with a real knowledge of the specific needs unique to each community. We have used this information and our partnerships to establish local systems of care whereby we address local needs with local innovative solutions. Documentation of selected access expansion is presented in the next section of this brochure.

I invite you to read further to learn more about this legislatively created model and how it has been used to address the many needs of citizens in our seven parish area.

LOUISIANA

Responding to Community Needs Through Expanded Geographic Access and Localized Planning

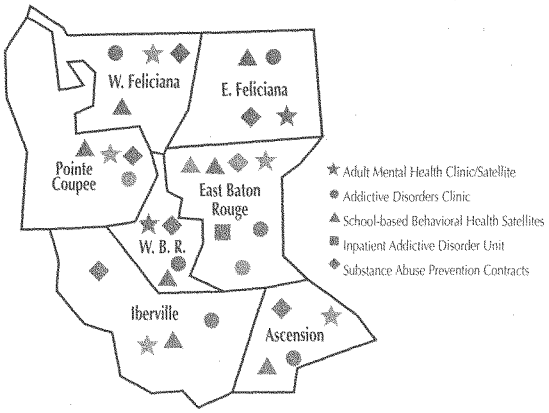
MAJOR INITIATIVES

- Expanded substance abuse outpatient treatment from 3 parishes to 7 parishes
- Increased school-based services with social workers from 3 in only 1 parish to 27 in 7 parishes, decreasing discipline/absence rates
- Decentralized substance abuse prevention contract services, increasing from 1 parish to 7 parishes
- Provides stipends for emergency housing needs for persons with mental illness
- Provides funding for families/consumer members with emergency needs related to their developmental disabilities
- Initiated evidence-based gender specific substance abuse treatment for women
- Developed critical communication strategies and tools on services for people with developmental disability
- Reduces hospitalizations for children through provision of crisis services in homes and schools
- Sponsors a teen AA support group, Club "225"
- Supports and hosts model mental health employment, support and training program
- Expanded access to case management services for people with chronic mental illness
- Provides increased access to psychologists to develop and implement behavioral plans for people with developmental disabilities

Healthcare, particularly human services, is very specific to the population it serves. Louisiana is a predominately rural state with a high degree of poverty, especially in the more rural settings. Poverty has a profound impact on transportation options and overall access. This is why the District has focused on decentralizing services to rural communities. Intimate knowledge of a community is required for successful program planning and implementation. All of the District's efforts to provide outreach services are initiated with town hall meetings to identify what each community believes are priority needs. This approach provides a dignified, non-stigmatizing forum for citizens to give and receive information about need for access to services related to developmental disabilities, mental health and addictive disorders. This collaborative process has produced sustainable outreach services specific to each community's request and is sensitive to their locale.

The illustration below shows the District's success in expanding service outreach throughout service area. This outreach has not required any additional state appropriations.

SERVICES EXPANDED UNDER CAHSD DISTRICT MODEL

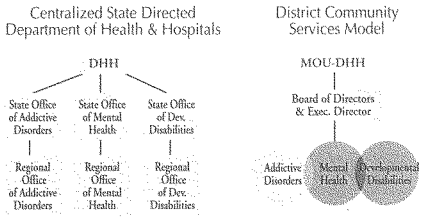


1996 - Pre-CAHSD
2006 - CAHSD

MODEL

Integrated Care

More and more, people are frustrated by the singular approach to health care and human services provided by most public agencies. A holistic approach is a hallmark of the District model by which one governance structure administers services and supports previously provided by three governmental offices (Office of Mental Health, Office for Citizens with Developmental Disabilities and the Office for Addictive Disorders). The District's management team used town meeting requests and "best practice" approaches implemented in other settings to plan and implement integrated services that are responsive to the multiple and sometimes complex needs experienced by people in need. The management team consists of administrative, management, medical, and other clinical specialists who work together to deliver services that overcome the typical barriers to timely, quality care.



Community Partnerships and Collaborations

Partnerships or collaborations have been instrumental in the District's successes. They have increased awareness of, and referrals to, CAHSD's services, helped to address the stigma associated with disabilities, and served as a means to implement community-wide prevention and early intervention strategies. Many of our partners have identified new ways to better serve our clients and have been a source of new funding. The CAHSD has been a catalyst and a convener for several important initiatives on a community and statewide basis. The District has brought a new focus on prevention and early intervention. One of the ways the agency has done this is by enhanced staff and community training on best practice approaches.

CAHSD established and leads an ongoing collaborative of first responders and service providers including emergency room physicians and hospital administrators, law enforcement, EMS, coroners, and other health professionals from the seven parish area, which oversees a continuum of services to prevent and address the need for crisis services for people with behavioral health problems. The collaborative developed a plan, and now coordinates and provides intensive services for those who are least able to be maintained by the traditional models in the community. It also provides ongoing oversight of the efficacy of the crisis system.

Addressing and responding to behavioral health needs, especially during community-wide emergencies, is a key role provided by the CAHSD to the seven parish Capital region. As the lead agency for behavioral health locally, the CAHSD staff is planning and working with the Department of Health and Hospitals, Red Cross, Louisiana Capital Area Volunteer Organizations Active in Disasters, and the 7 parish offices of Homeland

MAJOR INITIATIVES

- Provides 24/7 staffing of Emergency Room Collaborative in the Earl K Long Emergency Department
- Leads a regional primary care/behavioral health integration initiative
- Promotes an agency-wide integrated treatment approach for mental health and addictions
- Hosts cancer screenings for uninsured clients in collaboration with community medical partners
- Expedites access to treatment by establishing an Access Unit
- Funds a full time counselor at Earl K. Long pre-natal clinic to provide alcohol/drug abuse/depression screenings and brief interventions
- Leads the interagency services coordination process for persons with needs from multiple agencies
- Advocates and educates over 400 persons annually on developmental disabilities, mental illness, and substance abuse through an annual Family Forum
- Addresses special needs of emotional trauma patients through trauma service
- Supports professional development through staff training in best practice approaches
- Increases physical and behavioral health education to clients and to the public
- Pursuing integrated primary and behavioral health care
- Provides family counseling and education program within the inpatient substance abuse unit

MAJOR INITIATIVES

- Coordinates a Fetal Alcohol Spectrum Syndrome partnership of over 40 agencies and established infant assessment and treatment and referral clinic
- Collaborates with EBR Prison on post-booking treatment program
- Trains law enforcement officers in all parishes on working with people with developmental disabilities, mental illness, and addictive disorders. Crisis intervention team facilitator/trainer
- Educates 3,000 individuals annually on behavioral health issues in local school systems
- Created and continues to provide funding and distribution of an Emergency Services Resource Guide with over 100 contacts in seven parishes
- Partners with community recreation resources to provide recreational opportunities for children and adults with developmental disabilities and/or behavioral health needs
- During emergencies, the Agency acts as community convenor and manages deployment

Accountability

RESPONSIVE TO LOCAL COMMUNITIES

Board of Directors

Rebecca Katz
Ascension

Patricia G. Williams-Simon
Ascension

Marilyn Hines Burgess
East Baton Rouge

Dr. Dana Carpenter
East Baton Rouge

Judy Ewell Day
East Baton Rouge

Rev. Larry D. Smith
East Baton Rouge

Bret M. Talbot
East Baton Rouge

Kay M Andrews
East Feliciana

Annette D. Barton
East Feliciana

Rev. Louis Askins
Iberville

Jan V. Drinkwater
Iberville

Gail M Hurst
Pointe Coupee

Clyde W. Kimball
Pointe Coupee

Lisa Ogden
West Baton Rouge

Ann Wilkinson
West Baton Rouge

Amy P. Betts
West Feliciana

Mark Chustz
West Feliciana

To enhance the availability of support services leading to a satisfying and productive life for persons living with developmental disabilities, addictions and mental illness.

Accountable to all citizens through governance by a Board of Directors

Accountable to the Legislature

Accountable to the State of Louisiana & U.S. Government

Best Practices, Quality Improvement Program, and Medical Staff Organization

MONITORING

ORGANIZATIONS THAT MONITOR THE CAHSD

- Legislative Auditor
- Office of Risk Management
- Department of Civil Service
- Bureau of Health Standards (Clinical Licensure)
- LaPAS (DOA Performance Indicator Tracking)
- DHH Budget Office
- DHH Program Offices
- Medicaid
- Senate and House Health and Welfare Committee
- Senate Finance Committee
- House Appropriations Committee
- Parish Officials and Police

Facts

ABOUT THE CAPITAL AREA HUMAN SERVICES DISTRICT

SERVING THE PARISHES OF:

Ascension	East Feliciana	Pointe Coupee	West Baton Rouge
East Baton Rouge	West Feliciana	Iberville	

THE DISTRICT'S MISSION

To enhance the availability of support services leading to a satisfying and productive life for persons living with developmental disabilities, addictions and mental illness.

LEGISLATIVE INNOVATIONS

- Board Governance-local input and design, increased equity and geographic access
- Three program integration-multi-specialty approaches to co-occurring disorders
- Authority to collect/retain funds-innovation and reinvestment into local programs
- Title 38 vs. 39 under the Procurement Code

ANNUAL CAHSD AVERAGE NUMBER OF CLIENTS SERVED FOR BEHAVIORAL HEALTH NEEDS

Mental Health	adult outpatient	4,814
	child/adolescent outpatient	1,243
Addictive Disorders	adult outpatient	3,240
	child/adolescent outpatient	108
	adult males served in inpatient unit	639
	social detoxification unit	2,504
	community-based residential	238

TYPICAL ANNUAL DEVELOPMENTAL DISABILITIES SERVICES

Persons provided family supports	300
Persons provided vocational services	170
Persons provided cash subsidies	250

CAHSD RESOURCES

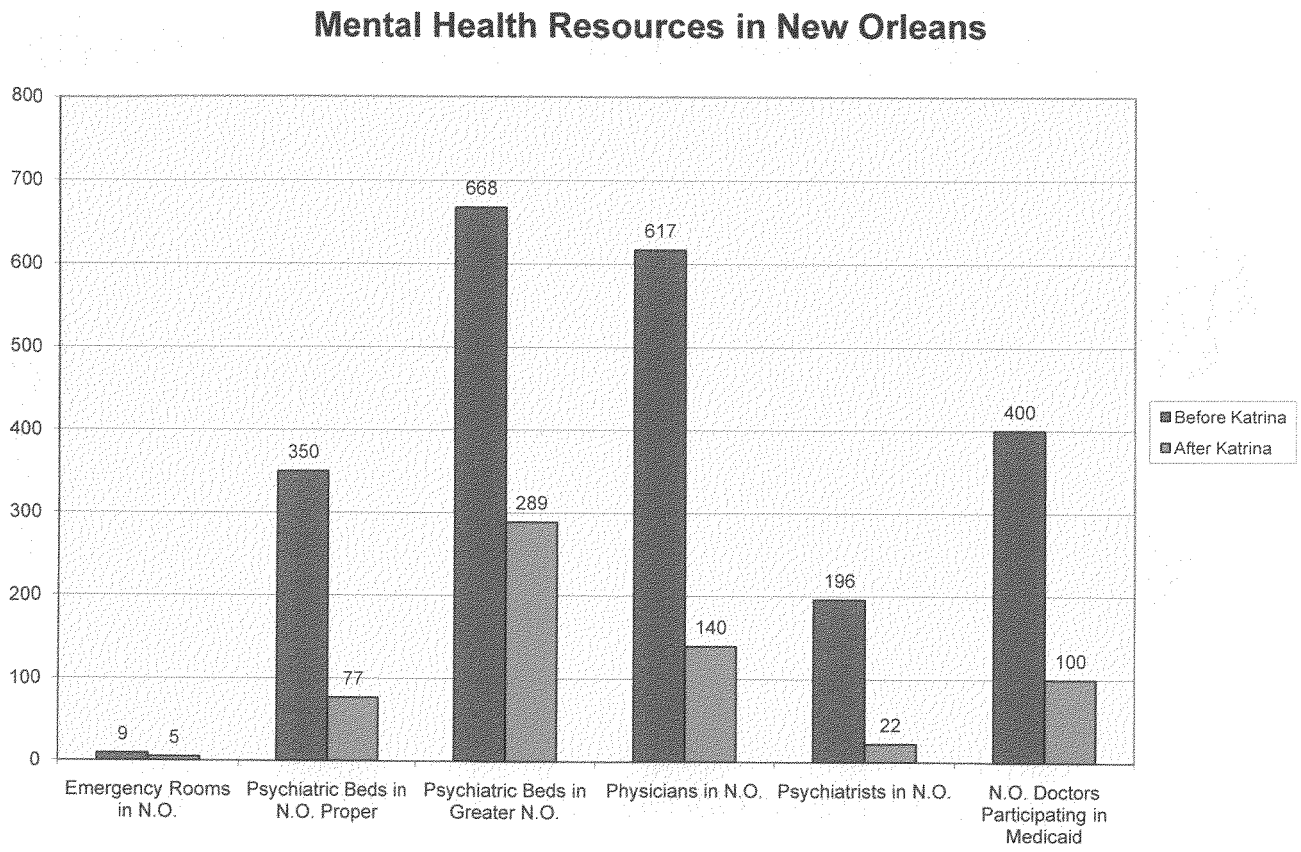
$35 million annual budget and 305 staff members
Operates 1 and funds 7 substance abuse treatment clinics
Operates 3 adult mental health centers and 6 satellite clinics
Operates 1 child/adolescent behavioral health unit and over 20 school-based mental health satellite clinics
Operates 1 (40 bed) inpatient drug treatment facility for adult males
Manages 50 agency service contracts

* Annual figures 2006

WWW.CAHSD.ORG

The Capital Area Human Services District (CAHSD) launched a new website recently to provide clients, families and behavioral health providers easy access to information about services for mental health, addictive disorders, and developmental disabilities.

Capital Area Human Services District
4615 Government Street · Baton Rouge, LA 70806


Mental Health Resources in New Orleans
800
700
600
500
400
300
200
100
0
9
5
350
77
668
289
617
140
196
22
400
100
Emergency Rooms in N.O.
Psychiatric Beds in N.O. Proper
Psychiatric Beds in Greater N.O.
Physicians in N.O.
Psychiatrists in N.O.
N.O. Doctors Participating in Medicaid
Before Katrina
After Katrina

SAMHSA Funding to Gulf Coast in Fiscal Year 2006

LOUISIANA	
Formula Funding	
Substance Abuse Prevention and Treatment Block Grant	$25,772,805.00
Community Mental Health Services Block Grant:	$5,860,149.00
Projects for Assistance in Transition from Homelessness (PATH):	$629,000.00
Protection and Advocacy Formula Grant:	$431,056.00
LA Formula Subtotal	**$32,693,010.00**
Discretionary Funding	
Mental Health:	$15,949,142.00
Substance Abuse Prevention	$3,100,124.00
Substance Abuse Treatment:	$8,090,103.00
LA Discretionary Subtotal	**$27,139,369.00**
Total Mental Health Funds:	$22,869,347.00
Total Substance Abuse Funds:	$36,963,032.00
Total LA SAMHSA Funds	$59,832,379.00
MISSISSIPPI	
Formula Funding	
Substance Abuse Prevention and Treatment Block Grant:	$14,215,234.00
Community Mental Health Services Block Grant:	$3,972,419.00
Projects for Assistance in Transition from Homelessness (PATH):	$300,000.00
Protection and Advocacy Formula Grant:	$402,700.00
MS Formula Subtotal	**$18,890,353.00**
Discretionary	
Mental Health:	$15,902,226.00
Substance Abuse Prevention:	$3,582,418.00
Substance Abuse Treatment:	$229,234.00
MS Discretionary Subtotal	$19,713,878.00
Total Mental Health Funds:	$20,577,345.00
Total Substance Abuse Funds:	$18,026,886.00
Total MS SAMHSA Funds	$38,604,231.00
SAMHSA Funds for LA & MS	$98,436,610.00

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