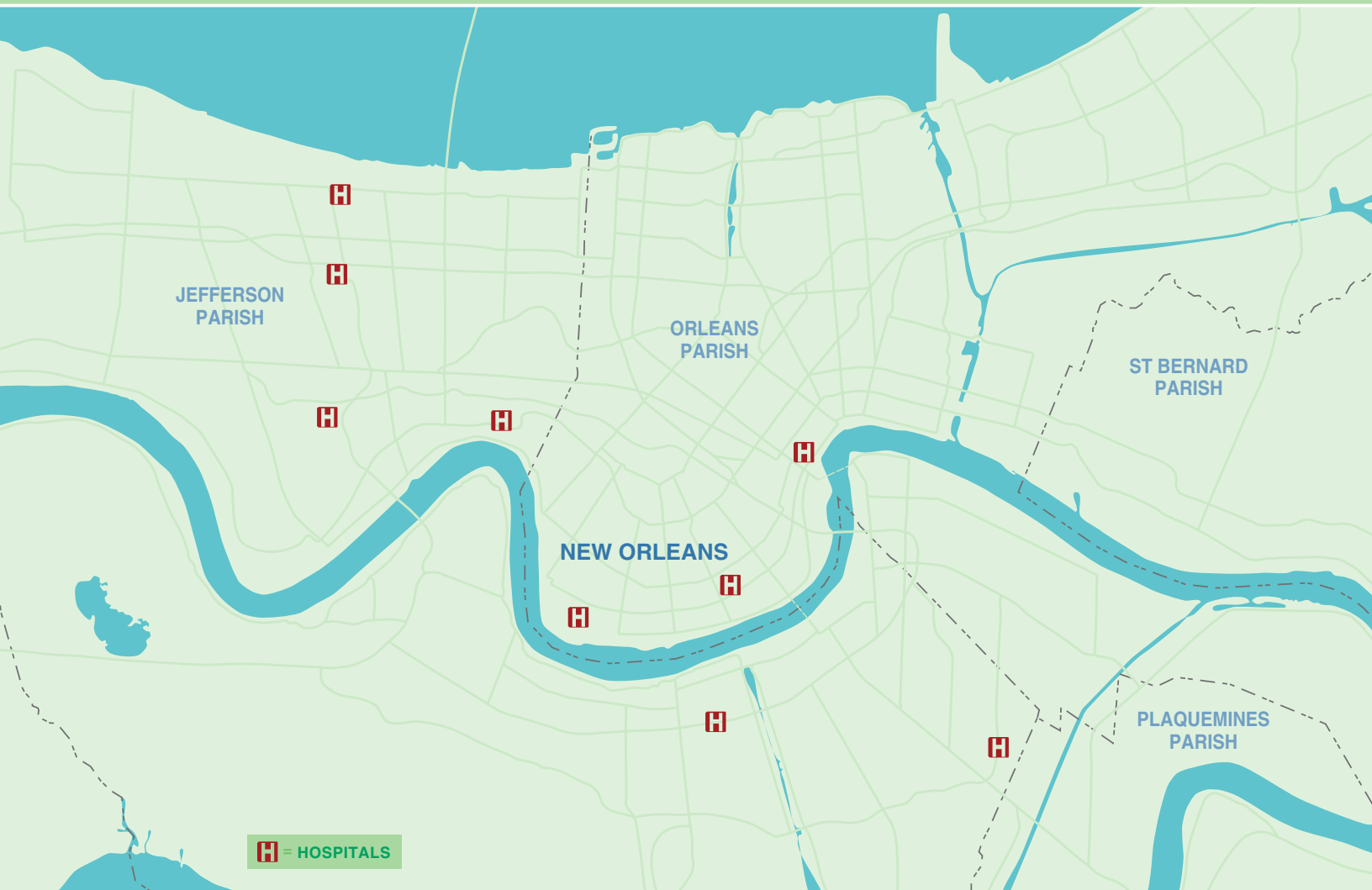


## HEALTH CHALLENGES FOR THE PEOPLE OF NEW ORLEANS: The Kaiser Post-Katrina Baseline Survey



## **ACKNOWLEDGMENTS**

We would like to thank first the people of New Orleans who gave us their time, invited us into their homes, and answered our questions. We would also like to thank Dr. Karen DeSalvo and her colleagues of Tulane University School of Medicine for their helpful guidance and feedback throughout this project, and for submitting this questionnaire for review by Tulane's Committee on the Use of Human Subjects. Dr. Ben Springgate of the University of California also provided useful guidance based on his ongoing efforts. Clayton Williams, Susan Bergson, and Gregory Stone of the Louisiana Public Health Institute provided much of the background information on the health system in New Orleans and were an invaluable resource. Further, we greatly appreciate the assistance of Dr. Fred Cerise, Secretary of the Louisiana Department of Health and Hospitals, who provided helpful review and feedback on this project and encouraged residents' participation in our effort.

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## HEALTH CHALLENGES FOR THE PEOPLE OF NEW ORLEANS

### EXECUTIVE SUMMARY

Before August 29, 2005, many in the New Orleans area faced significant health care challenges, and Louisiana consistently reported some of the poorest health statistics in the country. Katrina's levee breaches brought waters that washed away essential components of the health care system and left many health challenges for residents in the aftermath of the storm.

As policymakers at the federal, state and local level grapple with the challenges presented by Hurricane Katrina and the levee breaches, there is an overwhelming need for accurate, reliable data to guide their decisions. This report focuses on the health care challenges facing people living in the New Orleans area after Hurricane Katrina. It serves as a companion piece to the Foundation's May 2007 report, *Giving Voice to the People of New Orleans: the Kaiser Post-Katrina Baseline Survey*, delving more deeply into the health care status of residents and how they are using the health care services in place after the disaster.

The Kaiser Family Foundation conducted this household survey in the fall of 2006 to give voice to the people of New Orleans and supply policymakers with a source of information about who is returning to the New Orleans area and how they are faring, highlighting the health needs of the population and the challenges they encounter in the face of an uncertain future. This survey provides valuable information about adults currently living in the Greater New Orleans area (Orleans, Jefferson, Plaquemines, and St. Bernard Parishes) —those who remained in the area and those who have returned.

### Key Findings

#### Health Status

As policymakers and planners look to restore the health care system in the Greater New Orleans area, it is critical that they have an understanding of the health status of the population that has returned or relocated to the area since the storm. Though some of the sickest and most vulnerable former residents of the area may not have yet been able to return, adults in the area are still facing considerable challenges to their physical and mental health after Katrina.

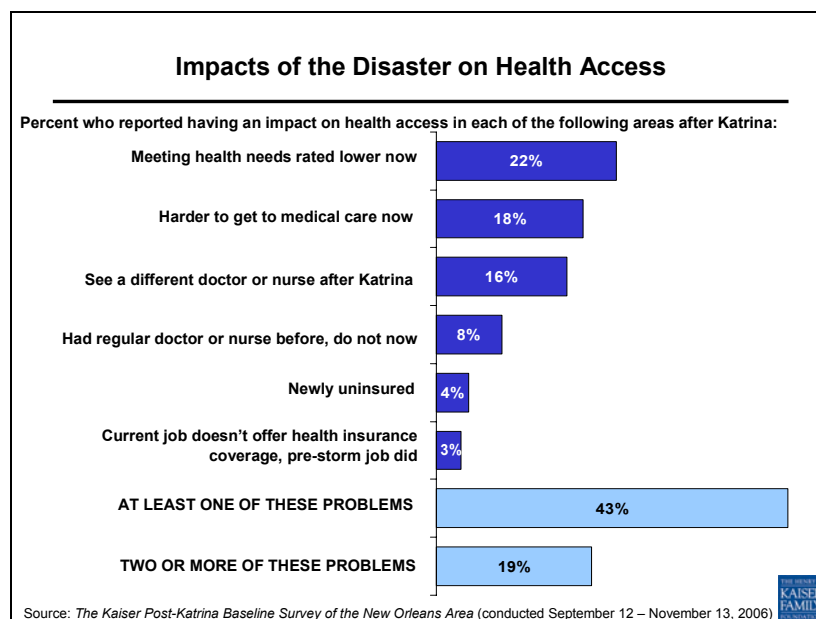
- More than one in ten adults (13%) ranked their overall health as fair or poor, which is a good indicator of the need for current and future medical attention.
- Among the economically disadvantaged, health problems were more common. One in five economically disadvantaged adults (19%) ranked their health as fair or poor, significantly higher than those with better economic status (9%).
- The differences in health status by source of health coverage were even more pronounced. The uninsured were more than twice as likely as those with private coverage to report being in fair or poor health (15% vs. 6%), and the elderly covered by Medicare and the poor covered by Medicaid were more than three times as likely to report being in fair or poor health (23% and 21% respectively).
- Chronic conditions were also widespread, with over four in ten (41%) adults responding that they had been told by a doctor that they had hypertension, diabetes, asthma or other breathing problems, or other chronic health conditions.
- Mental health challenges were also evident for adults, with about one in twelve adults (8%) ranking their mental health as fair or poor. Our survey found about one in twenty adults reporting symptoms of depression (6%) or Post-Traumatic Stress Disorder (PTSD) (5%).

Though many adults across the region were facing physical and mental health problems, certain subgroups were disproportionately burdened by poor health status. Health disparities for African Americans persisted in the New Orleans area. The elderly in the area had high rates of health problems, as is the case nationally—two thirds (66%) of those over 65 in the area were living with a chronic condition or disability. As noted, 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.

### Health Coverage, Access, and Utilization

The flooding from levee breaches associated with Hurricane Katrina had a profound impact on the availability of health care services in the New Orleans area. At the time of the survey over one year after the hurricane, six of sixteen major hospitals in the region were still not operating, and many of those that had opened were at reduced capacity from pre-Katrina levels. The Medical Center of Louisiana at New Orleans (MCLNO, formerly Charity Hospital) remained closed, with limited clinic services available at a former downtown department store, which made accessing health care particularly difficult for the low-income and uninsured populations who used to rely on Charity. The University Hospital campus of MCLNO opened with limited capacity as an interim hospital shortly after the survey was concluded. Many health care providers had also left the area, creating workforce shortages to treat the remaining population.

In light of the diminished health resources available after the storm, it is perhaps not surprising that the survey found significant health coverage, access and utilization problems facing adults in the area a year after the storm. Overall, 43% of adults in the population reported their access to health care and coverage was affected in the aftermath of the storm, with 18% saying it was harder to get to their place of medical care now.



Adults in the area continued to face health coverage, access, and utilization problems, and the vulnerable groups disproportionately burdened by poor health status were also among those facing the greatest hurdles in accessing care.

- The uninsured rate continued to remain high—a quarter of non-elderly adults (25%) in the Greater New Orleans area lacked health insurance, with rates even higher among vulnerable subgroups of the population such as the economically disadvantaged and African Americans.
- With more limited health coverage, adults had a difficult time accessing the care they need in an efficient setting. Over a quarter of adults (27%) in the area did not have a usual source of care other than an emergency room.
- A quarter (25%) of the population had visited an emergency room in the past six months. At the same time, fewer than four in ten (38%) had received routine or preventive care in the past six months.
- Those who formerly relied on the Charity Hospital system (9% of adults in the area) were facing added challenges accessing health care. Over half of this population was uninsured (56%) and more than six in ten (61%) reported having no usual source of care other than the emergency room.
- About one in twelve adults (8%) in the Greater New Orleans area had delayed or not gotten needed medical care in the past six months. The percentage was three times as high (19%) among adults in fair or poor health status compared to those who reported better health (6%), despite the pressing need for prompt medical attention for this population.

Findings from this survey document that previous users of the Charity Hospital system, together with the broader uninsured and Medicaid populations, were disproportionately impacted by Katrina's devastation. But they were not alone. Hospital closures and the loss of medical professionals have affected nearly everyone who lives in post-Katrina New Orleans. Indeed, the storms of 2005 had a leveling effect across many health access and utilization measures, creating new access to care barriers for many still living in the region.

### **Impact on Children**

Disasters can have a particularly strong impact on children. Children tend to thrive on a regular routine, and the disruption that follows a disaster can cause them to feel scared and angry and to manifest changes in behavior, such as increased violence or withdrawal from relationships. Our survey asked respondents to describe some of the challenges children in their household were facing. In the wake of the Katrina disaster, one in twelve households with children (8%) in the area reported a child was suffering from borderline or abnormal emotional and behavioral health symptoms.

Despite the disruption to their lives and the challenges of life in post-Katrina New Orleans, children in families of all races and income levels are back in the area. As these children cope with physical and mental health conditions after the disaster, access to medical care is important in promoting stability and health. Though the majority of children have received routine health care, timely access to health services could be improved, particularly for vulnerable children most in need of medical care.

The important role that public coverage through Medicaid and LaCHIP plays in helping children in the New Orleans area get the health care they need is clear, as more than four in ten households with children in the area (42%) have a child on one of the programs. Only 9% of households reported having an uninsured child, a comparable rate for both African American and white households. More than twice as many African American households with children as white households have a child on Medicaid or LaCHIP (61% vs. 28%), highlighting the importance of these programs in reducing racial disparities in coverage and care and giving children a healthy start in life.

## Moving Forward

The findings from this baseline survey provide an in-depth portrait of the health challenges facing those living in the New Orleans area over one year after the storm. As is clear from the data, significant hurdles face the residents of the area and also the policymakers charged with rebuilding and improving the health system for them. Louisiana's efforts to expand health coverage, broaden access to primary and preventive care, and recruit health care workforce to the area are a step toward addressing the needs described in this report. Though slow progress continues to be made in restoring health care services in the area, this report indicates that much work remains to be done.

In addition to the findings from this report and the May 2007 report, which are both based upon data from the *Kaiser Post-Katrina Baseline Survey of the New Orleans Area*, the Foundation plans to follow up with two more surveys in the coming years to aid in the evaluation of progress made in restoring health care services and to continue to give voice to the people of the New Orleans area. The Foundation is committed to revisiting these and any new issues that arise in New Orleans in the next phase of the Kaiser post-Katrina survey project.

### Note on Methodology

The *Kaiser Post-Katrina Baseline Survey of the New Orleans Area* was designed and analyzed by researchers at the Kaiser Family Foundation. This in-person survey was conducted door-to-door from September 12 to November 13, 2006. Interviews were completed in English and Spanish with 1,504 randomly selected adults ages 18 and older residing in Orleans, Jefferson, Plaquemines, and St. Bernard Parishes. These four neighboring parishes make up Region 1 as defined by Louisiana's Department of Health and Hospitals, an administrative region used for recovery planning. The sample design was a stratified area probability sample, with 456 sampling points distributed proportionate to expected population size in each of the four parishes, and in each of 14 Census tract-defined neighborhoods in Orleans Parish. An oversample was drawn in Orleans to allow for more detailed analysis of this area; final results have been weighted so that each parish reflects its estimated share of the area's population. The margin of sampling error for the full sample is plus or minus 4 percentage points; for results based on Orleans Parish or Jefferson Parish, it is plus or minus 5 percentage points. For results based on other subsets of respondents, the margin of sampling error may be higher. ICR/International Communications Research collaborated with Kaiser researchers on sample design and weighting, and supervised the fieldwork. More detail on survey methodology is available in Appendix C of this report. The full questionnaire and topline are available as Appendix E of the May 2007 report, *Giving Voice to the People of New Orleans: The Kaiser Post-Katrina Baseline Survey*, available at <http://www.kff.org/kaiserpolls/pomr051007pkg.cfm>.

# HEALTH CHALLENGES FOR THE PEOPLE OF NEW ORLEANS

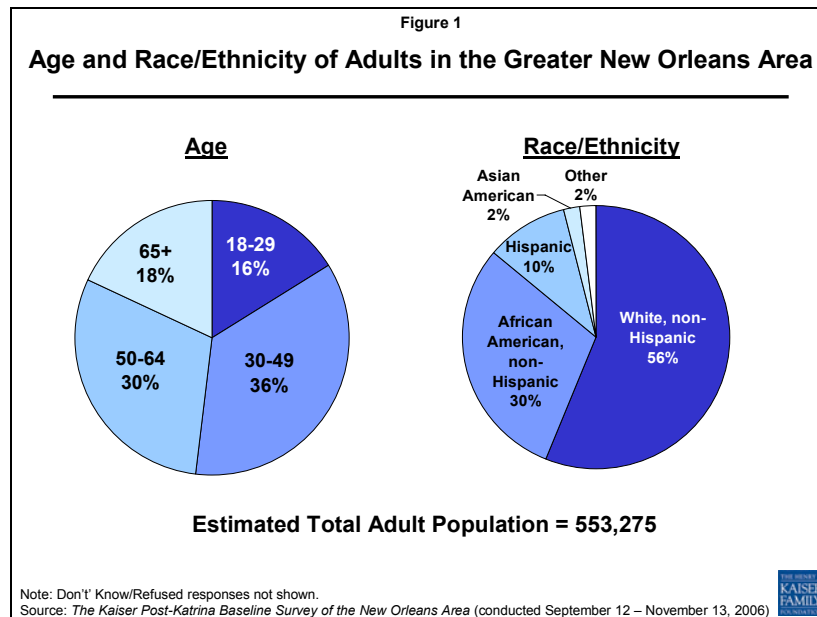
## INTRODUCTION

As policymakers at the federal, state and local level grapple with the challenges presented by Hurricane Katrina and the levee breaches, there is an overwhelming need for accurate, reliable data to guide decisions. This report focuses on the health care challenges facing people living in the New Orleans area after Hurricane Katrina. It serves as a companion piece to the Foundation's May 2007 report, *Giving Voice to the People of New Orleans: the Kaiser Post-Katrina Baseline Survey*, delving more deeply into the health care status of adults and how they are using health care services in place after the disaster.

The Kaiser Family Foundation conducted this household survey in the fall of 2006 to give voice to the people in New Orleans and supply policymakers with a source of information about who is returning to the New Orleans area and how they are faring, highlighting the health needs of the population and the challenges they encounter in the face of an uncertain future. This survey provides valuable information about the people currently living in the Greater New Orleans area—those who remained in the area and those who have returned. In some ways, though, the findings only tell part of the Katrina story: the survey does not capture the challenges facing people who lived in the New Orleans before the disaster and have since been dispersed around the country.

### The people of New Orleans...resilient and diverse

Prior to the landfall of Hurricane Katrina on August 29, 2005, approximately 1 million adults and children lived in Orleans, Jefferson, St. Bernard and Plaquemines parishes, the four parishes included in our survey of the Greater New Orleans area. The people we surveyed living in the New Orleans area after the storm were a resilient and diverse group. Despite the ordeals they had endured, seven in ten adults (69%) were optimistic about the future of the New Orleans area. People across different age brackets called the area home—about one in five (18%) of the estimated total adult population of 553,275 was age 65 or older. At the same time, three in ten households (31%) in the area (a different base than adults) reported having a child under 18 in the home. Three in ten adults in the area were African American and just over half of adults were white, non-Hispanic.





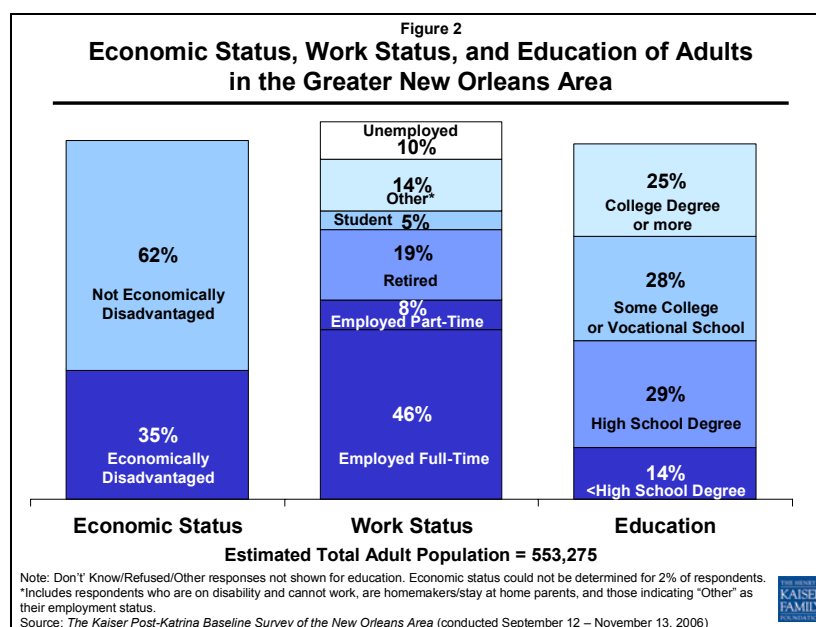
While many have returned to the site of their previous home, more than one in ten residents (12%) were originally from the area but living at a different address after the storm. In addition, some adults (5%) who did not live there before the storm have moved to the New Orleans area, including a burgeoning Hispanic population seeking opportunities in the rebuilding of the area.

Our survey found 10% of adults in the area were Hispanic and 2% were Asian American. Before Katrina, Latinos accounted for just 5% of the region's population.<sup>1</sup> While African Americans continued to constitute the majority of adults in Orleans Parish (53%), they were a considerably smaller share of the population than they were pre-Katrina, when they made up two-thirds of adults in Orleans. This reflects the impact of Katrina and the levee breaches heavily flooding areas where large portions of low-income African Americans resided, resulting in their relocation from New Orleans with few resources to return.

### Economic challenges persist

Louisiana and the New Orleans region were among the poorest economically in the nation. One in five residents of Region 1 lived in poverty before Hurricane Katrina and in Orleans Parish, approximately 50% of the residents were low-income (below 200% of the Federal Poverty Level, about \$32,180 for a family of three in 2005).<sup>2,3</sup>

The Foundation's May 2007 report demonstrated that economic challenges have persisted after the storm for the population that stayed or has returned to New Orleans after Katrina. In the Greater New Orleans area, about a third of adults (35%) were economically disadvantaged, a composite measure used to identify those who may be facing particular economic hardships.<sup>4</sup> A little over half of the adult population worked either part- or full-time, and four in ten (43%) had a high school degree or less for their education. One in ten adults (10%) in the area was unemployed, evidence of the difficulty of finding employment in the region after the storm.



<sup>1</sup> US Census Bureau, 2000 Census. Summary File 3. Retrieved June 14, 2007 from <http://www.census.gov/main/www/cen2000.html>.

<sup>2</sup> US Census Bureau, 2000 Census. Summary File 3. Retrieved June 14, 2007 from <http://www.census.gov/main/www/cen2000.html>.

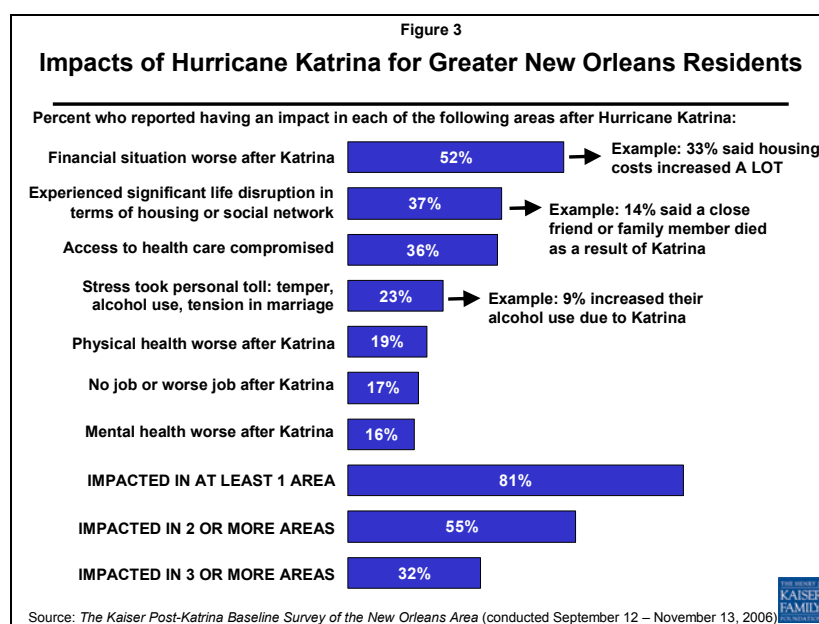
<sup>3</sup> Louisiana Department of Health and Hospitals (2005) Louisiana's Uninsured Population; A Report from the 2005 Louisiana Health Insurance Survey.

<sup>4</sup> Economically disadvantaged is defined as having one or more of the following: a reported income below \$30,000, an adult on Medicaid, a child on Medicaid/LaCHIP, or no adults in the household are employed (and respondent is not retired or a student).

Again, Orleans Parish particularly faces economic challenges with 43% of adults economically disadvantaged and 12% not working as many businesses remain closed and others are struggling to become operational over a year after the floods.

### Lives disrupted in many ways

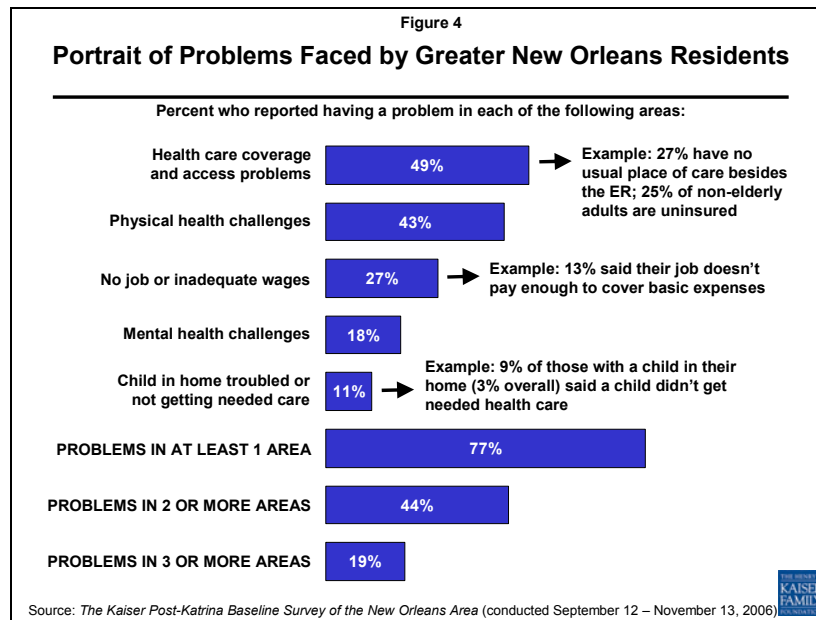
As described in the May 2007 report, the disaster disrupted the lives of most residents of the New Orleans area across a variety of measures—finances, employment, housing, social networks, physical and mental health and access to health care were all areas in which residents reported declines following the levee breaches.<sup>5</sup> More than 80% of the population was negatively impacted by Hurricane Katrina in at least one of the ways asked about in the survey, and a substantial share reported a significant decline in their quality of life. Prior to Katrina, 65% of adults in the area and the same percentage in Orleans Parish were very satisfied with their overall quality of life; after the floods, this dropped to 34% among adults in the four-parish area and 25% in Orleans Parish, affecting their outlook on rebuilding and reestablishing their lives but also the mental anguish and physical challenges they continue to face in their daily lives.



### Residents continue to face an array of problems

The storm and subsequent flooding immediately impacted the population in the New Orleans area, but over a year after the storm many residents were still grappling with an array of problems in their lives. Health problems were chief among the issues residents reported—nearly half of the residents in the New Orleans area reported some type of coverage or access problem, and four in ten residents reported a physical health challenge. These health concerns were widespread and occurred amid many other life challenges like adequate employment and wages, housing, and caring for family. About one fourth of the population was facing an employment-related problem at the time of the survey, and a third of adults in households with children (11% of all adults in the area) were worried about how their children were faring.

<sup>5</sup> For a full explanation of the development of the composite measures used to describe the storm's impact and the problems facing the people of New Orleans, please see Appendix C (p. 48) in *Giving Voice to the People of New Orleans: The Kaiser-Post Katrina Baseline Survey*, May 2007, available at <http://www.kff.org/kaiserpolls/pomr051007pkg.cfm>



This report focuses on the health issues from the post-Katrina survey and delves more deeply into the health status, coverage, and access challenges facing the residents of New Orleans more than 12 months after the damage wrought by Katrina and the failed levees. It looks at the health problems facing the residents of the New Orleans area, where they seek care, and how health and health care access have changed since Katrina. A special focus is provided for groups in New Orleans most burdened by poor health and chronic conditions and the groups facing particular challenges in getting health care.

The Foundation plans to track these experiences over a multi-year time period to provide the external, reliable information needed to shed light on whether progress is being made and, if so, in what areas of the health arena; if not, where challenges still remain. We hope these findings will help to shine a national spotlight on the health needs of the people of New Orleans to insure that as time passes, our national commitment to rebuild New Orleans is not forgotten.

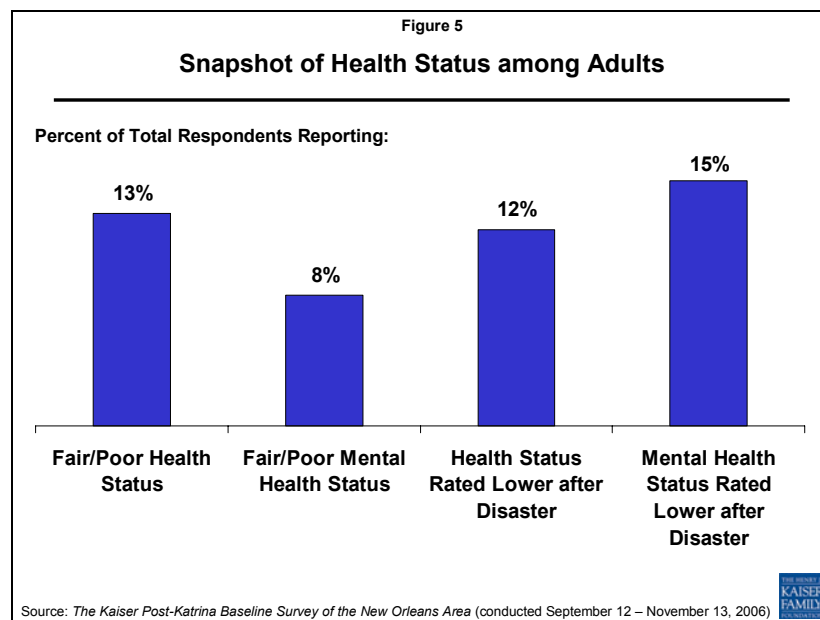
## WHAT IS THE HEALTH STATUS OF PEOPLE IN THE GREATER NEW ORLEANS AREA?

Prior to Katrina, Louisiana had some of the poorest health statistics in the country, with high rates of infant mortality, chronic diseases such as asthma and diabetes, and AIDS cases. Further, there were large disparities in health status for minorities; the African American population had higher mortality rates from heart disease, cancer, stroke, and diabetes than whites.<sup>6</sup>

As policymakers and planners look to restore the health care system in the Greater New Orleans area, an understanding of the health status of the population that has returned is a critical component for planning and rebuilding health services. These survey findings provide a measure of both the physical and mental health needs of adults more than one year after the storm, and provide some insight into which populations are at the most risk for health problems.

### Snapshot of Health Status

One of the best measures of overall health status has proven to be respondents' self-assessment of their health in relation to their peers. Overall, 13% of adults in New Orleans said that they were in fair or poor health, which is about the same as the national average of 12%.<sup>7</sup> About one in twelve (8%) said that their mental health was fair or poor.

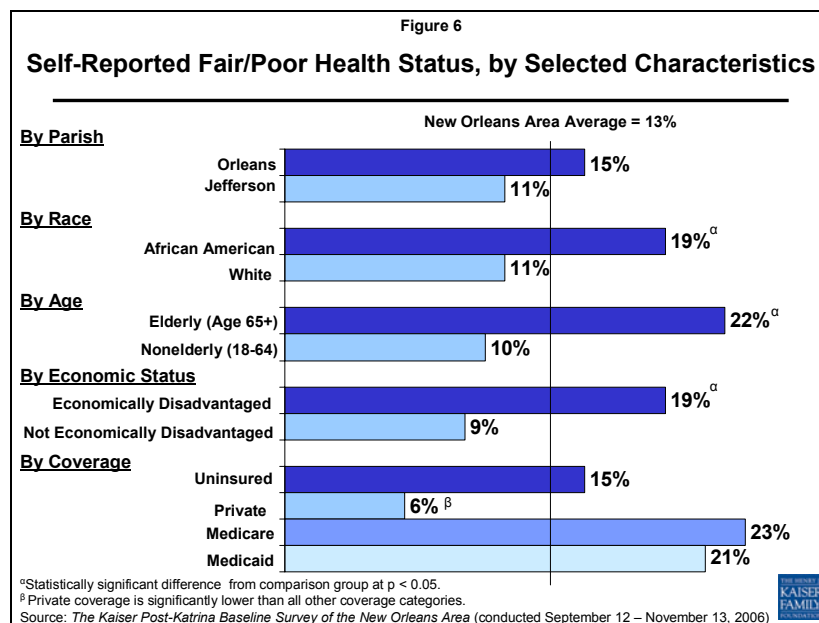


<sup>6</sup> United States Department of Health and Human Services (US DHHS), Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Compressed Mortality File (CMF) compiled from 1999-2003, Series 20, No. 21 2006 on CDC WONDER On-line Database, queried October 2006. Data available at [www.statehealthfacts.org](http://www.statehealthfacts.org), last accessed July 17, 2007.

<sup>7</sup> "Summary Health Statistics for U.S. Adults: National Health Interview Survey, 2005," United States Department of Health and Human Services (US DHHS), Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Series 10, No. 232, p. 59.

While health statistics tell us that individuals living in New Orleans before the floods had health problems and poor health status, the impact of the Katrina experience appears to have further compromised the health of the population. A year later, one in ten (12%) adults rated their physical health lower, and 15% indicated that their mental health status was worse after the storm. However, the composition of the population living in New Orleans today is likely to be healthier than the pre-Katrina population as former residents who were frail and in poor health are less likely to have returned to the city given the limited health resources and the difficulty associated with living in the area, especially for those from severely flooded areas.

Nearly a quarter (22%) of the elderly (those over the age of 65) reported being in fair or poor health. The elderly were about twice as likely as their younger counterparts to report being in fair or poor health, reflecting widely recognized trends in increased health complications as people grow older. However, with nearly one in five residents of Greater New Orleans age 65 or older and a quarter of them in fair or poor health, reestablishing health care services for the frail and elderly clearly needs to be addressed in the rebuilding efforts.

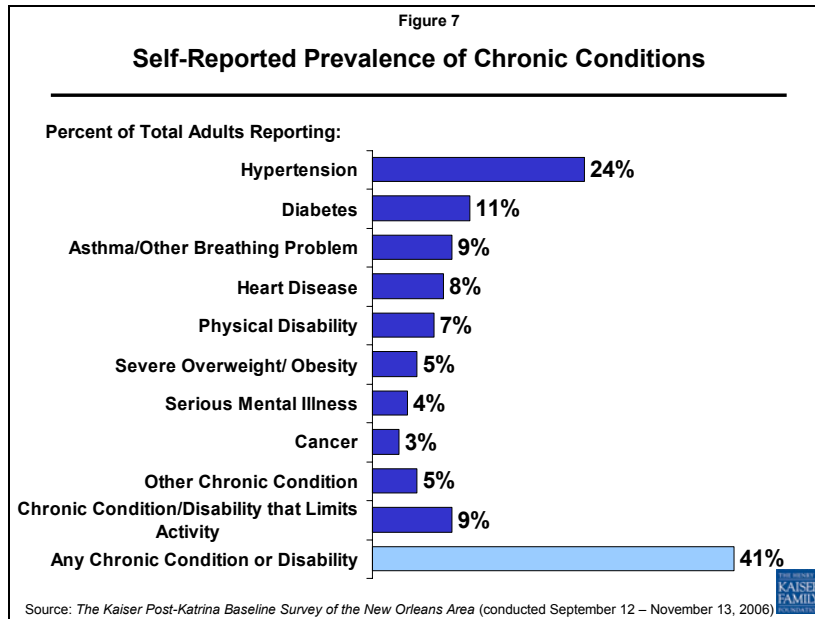


African Americans and the economically disadvantaged were more likely to report being in fair or poor health than the white population and those who were better off economically. Almost one in five African Americans versus one in ten whites (19% vs. 11%) reported being in fair or poor health. A similar discrepancy existed between adults in economically disadvantaged households and those in higher-income households (19% vs. 9%), and this finding helps up in race-specific analysis. To illustrate, nearly a quarter (24%) of economically disadvantaged African Americans and 16% of economically disadvantaged whites rated their health as fair or poor compared with 10% and 9% respectively for their non-economically disadvantaged counterparts.

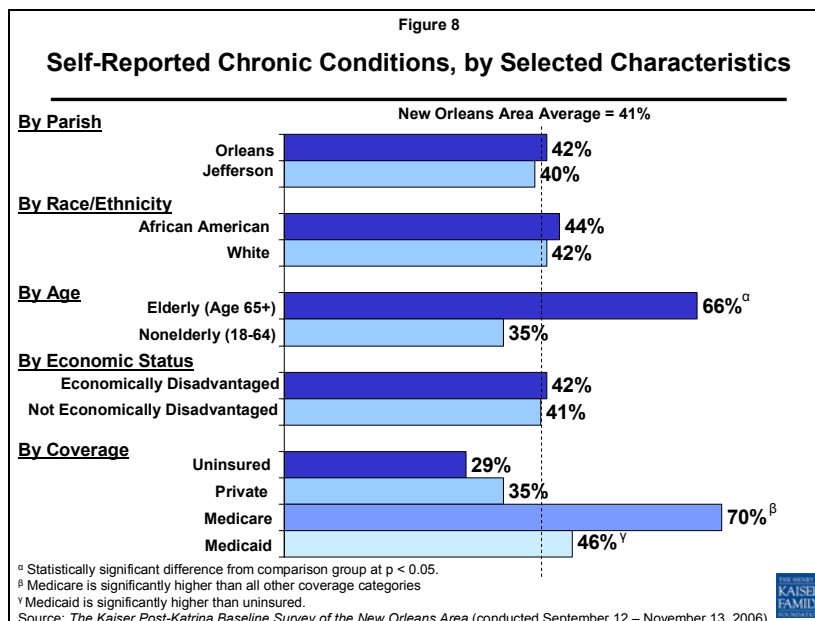
The uninsured rated their health lower than those with private coverage (15% vs. 6% in fair or poor health). However, the poor with Medicaid and the elderly and disabled with Medicare were the most likely to report their health as fair or poor. Close to one in five (21%) adult Medicaid beneficiaries reported being in fair or poor health, more than three times the percentage among those covered by private insurance. Given Louisiana's low income levels for Medicaid eligibility for parents, many adults qualify for Medicaid on the basis of a disability, which helps to explain why so large a proportion of adult Medicaid beneficiaries were in fair or poor health.

**Chronic illness in the New Orleans area**

Individuals living with chronic illnesses are an important constituency in the health care system. Their conditions generally cause them to use health care more frequently, with more prescription medications, an increased need for specialty care, and more doctor visits. Four in ten (41%) adults in the Greater New Orleans area said they had been told by a doctor that they have a chronic condition or reported that they have a chronic condition or disability that limits their daily activity. The most prevalent chronic conditions were hypertension or high blood pressure (24%), diabetes or high blood sugar (11%), and asthma or other breathing problems (9%). The low reported rate of obesity may reflect lack of discussion of obesity by physicians with their patients.



There was a significant difference in the burden of chronic disease for the elderly, with two-thirds of those over 65 years of age and 70% of Medicare beneficiaries (which includes some non-elderly who have long-term disabilities) reporting a chronic condition.

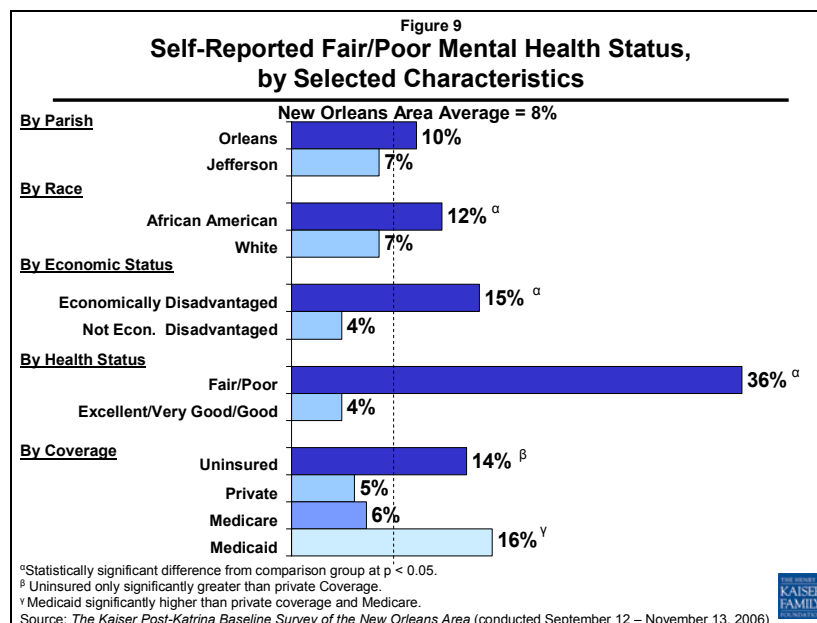


## Mental health status

Mental health is an important but often overlooked aspect of overall health status. Given the magnitude of the devastation post-Katrina and the trauma of the evacuation and aftermath of the storm, it is not surprising that people in the New Orleans area had mental health challenges in addition to their physical health needs. Prior to the disaster, Louisiana generally ranked well nationally for the mental well-being of the population—in 2004, Louisiana had the lowest percentage of poor mental status of any state (not including Hawaii, which did not report data).<sup>8</sup>

Hurricane Katrina and the subsequent levee breaches radically changed the context of people's lives in the New Orleans area. For some, the cumulative burdens of rebuilding a home, losing a job, caring for family, and other trials of post-Katrina life have taken their toll. Others may be living with mental health issues such as clinical depression that existed before the storm, though their conditions now must be addressed in a dramatically changed environment. Regardless of when their conditions developed, the statistics below represent those now suffering from poor mental health status, for whom appropriate counseling and treatment may help in coping with stresses in life and in becoming or remaining healthy, engaged members of the community.

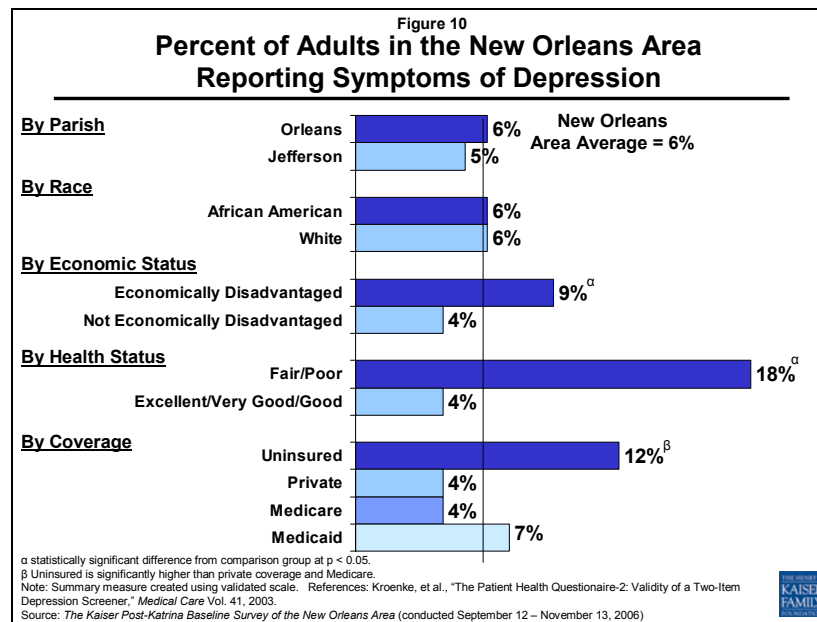
About one in twelve residents (8%) of the Greater New Orleans area rated their mental health as fair or poor and among those who reported their overall health status as fair or poor, more than one-third (36%) reported their mental health status to be fair or poor. African Americans (12%) and the economically disadvantaged (15%) also reported relatively higher rates of fair or poor mental health. Uninsured individuals (14%) and Medicaid enrollees (16%) were more than twice as likely as those with private insurance (5%) or Medicare (6%) to report fair or poor mental health.



<sup>8</sup> Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System Survey Data (BRFSS), 2004, unpublished data. Statistics last accessed at [www.statehealthfacts.org](http://www.statehealthfacts.org) on July 16, 2007.

## Depression and Post-Traumatic Stress Disorder

The survey screened for two specific mental health conditions—depression and Post Traumatic Stress Disorder (PTSD)—that might affect a population after a disaster. In response to questions probing whether respondents recently felt hopeless or bad about themselves, had little interest in doing things, had trouble falling asleep or experienced changes in their eating habits, 6% of the adult population in the area scored as depressed.<sup>9</sup> About the same percentage (5%) scored as having PTSD. The validated scale used to assess PTSD asked whether a traumatic experience had caused the respondent to have nightmares, avoid situations that reminded them of the experience, be constantly on guard, or feel numb and detached from their surroundings.<sup>10</sup>

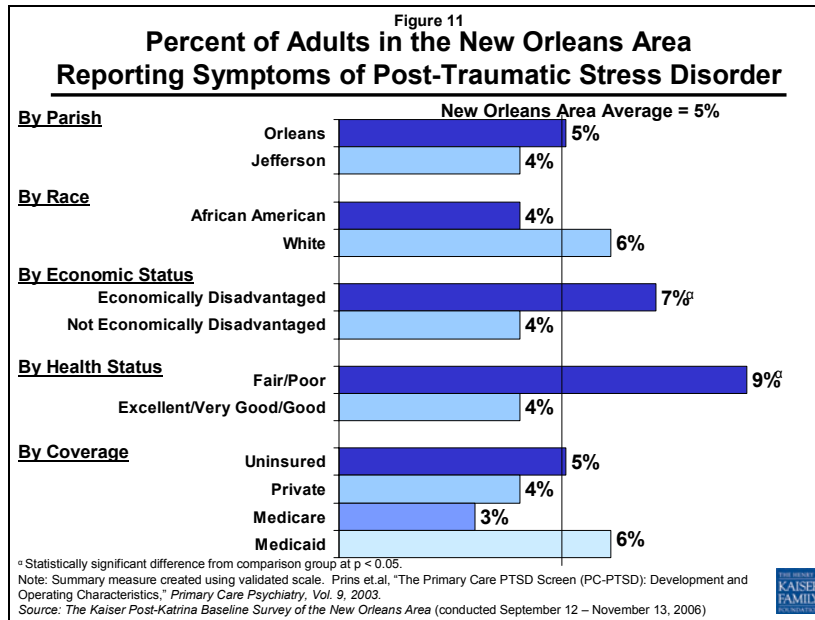


Overall, 6% of area residents scored as depressed, but the economically disadvantaged and those in fair or poor health were significantly more likely to score as depressed than their counterparts. Depression was also more prevalent among the uninsured respondents than those with health coverage. Twelve percent of the uninsured, which is twice the area average, scored as depressed.

<sup>9</sup> Summary measure created using validated scale. References: Kroenke, et al., "The Patient Health Questionnaire-2: Validity of a Two-Item Depression Screener," *Medical Care* Vol. 41, 2003.

<sup>10</sup> Summary measure created using validated scale. Prins et al., "The Primary Care PTSD Screen (PC-PTSD): Development and Operating Characteristics," *Primary Care Psychiatry*, Vol. 9, 2003.

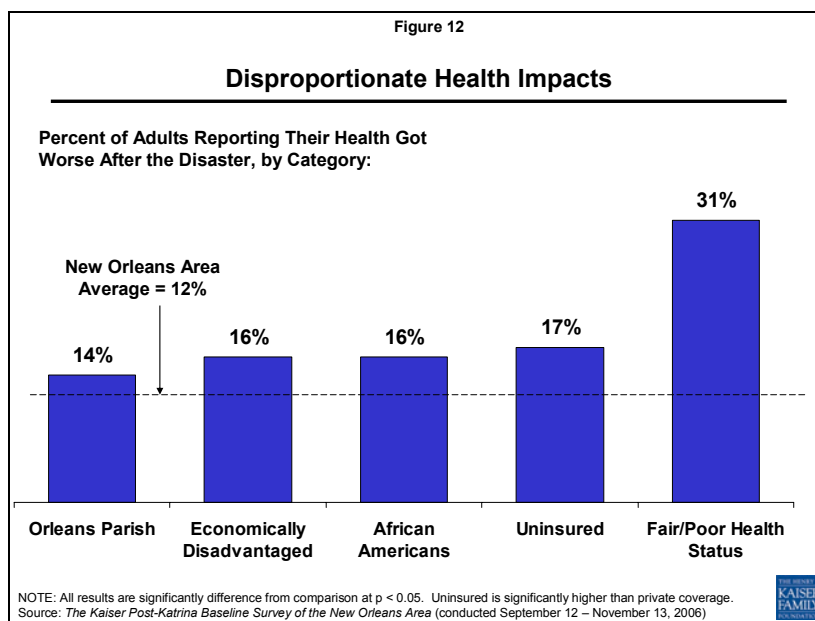




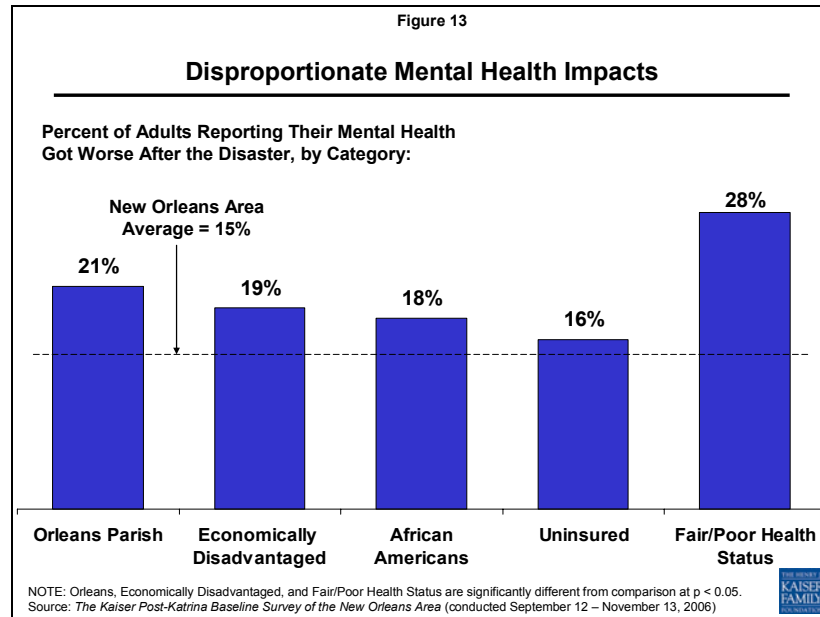
**Health status declines after Katrina**

Respondents were asked to assess changes in their health status after Katrina. Over one in ten people residing in the Greater New Orleans area one year after Katrina said they had experienced a decline in their physical health following the storm. Some (12%) reported that their health got worse and 11% reported a new or worse health condition.

While the economically disadvantaged, African Americans, and uninsured were significantly more likely to report a decline in health status than their more financially secure, white, and insured counterparts, the likelihood of declines in health status was dramatically higher among those reporting fair or poor health status. Nearly a third (31%) of those in fair or poor health gave a more favorable rating to their health status before Hurricane Katrina.



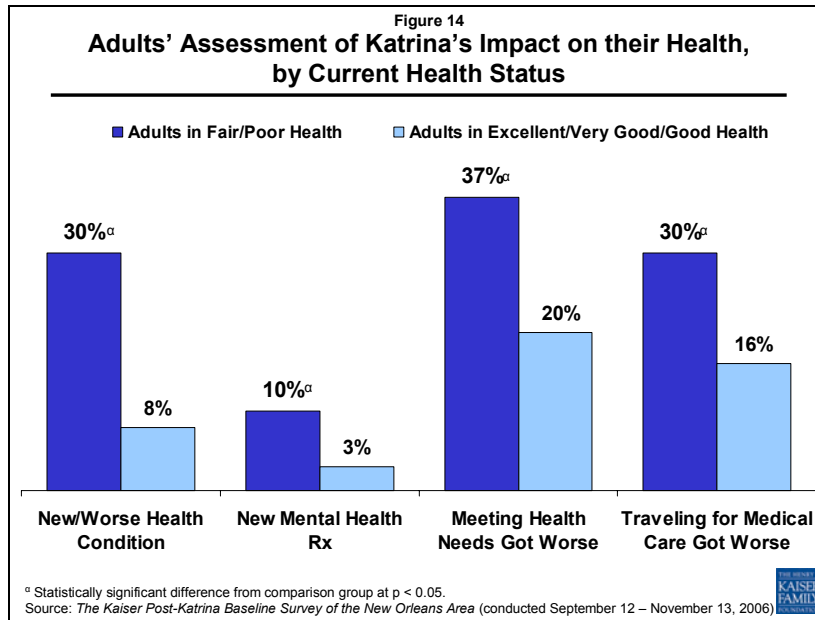
Mental health status was obviously affected by the impact Katrina and subsequent flooding had on people's lives and their families. A significant portion of the population experienced some decline in mental health status following Katrina compared to their mental health status before the disaster. More than one in five people (21%) in Orleans Parish rated their mental health more favorably before Hurricane Katrina, compared to 12% in Jefferson Parish where the flood damage and disruption was less extensive.



Over a quarter of those reporting fair or poor overall health expressed a decline in their mental health. Though causality cannot be determined from this survey, it does suggest that there may be a link between living with physical health challenges after the storm and additional mental and emotional stresses. Another measure of the trauma of the storm is the 14% of adults who reported that a family member or close friend died as a result of Katrina. A third of those experiencing such loss reported their mental health got worse and 53% said their quality of life had declined.

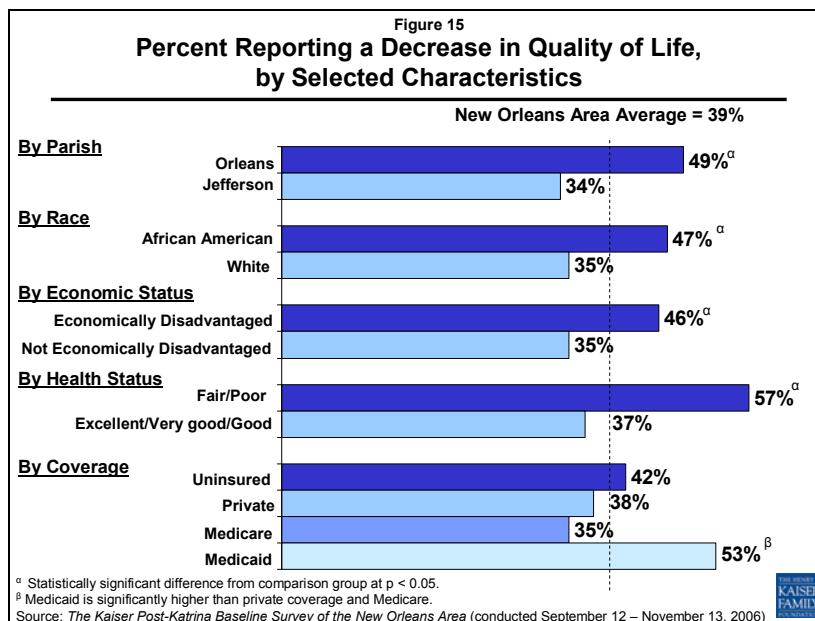
### New challenges for those reporting fair or poor health

Looking specifically at those reporting fair or poor health, we see in more detail the impact of the storm on their health. Adults in fair or poor health were three times as likely to say they had a new or worse health condition or were taking a new mental health prescription after the storm compared to adults in better health. In addition, they were twice as likely to report that meeting their health needs was more difficult after the storm. Closed bus routes and relocated providers could make accessing care more difficult, but it could also be related to the deterioration of their previous social networks. These social networks provide emotional support and companionship but also provide critical support—particularly for those in poor health or with chronic conditions and disabilities—such as assisting with transportation to medical care.



**Decreases in life satisfaction**

Perhaps the most telling sign of the Katrina's impact on the residents of the area is their assessment of their quality of life. The survey asked respondents whether they were very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied with their overall quality of life both before and after Hurricane Katrina. Two-thirds of adults (65%) reported being very satisfied with their quality of life before the storm, but only 34% reported being very satisfied after Katrina. A significant portion (39%) of adults in the area said they experienced a decline in their quality of life after the storm. Though this measure does not directly address mental health, it captures the mind frame in which people in the New Orleans area were living: things were better then than they are now. The economically disadvantaged, African Americans, and those with Medicaid were more likely to express a decline in quality of life than other groups, but a third to half of every subpopulation examined reported a decline in life satisfaction. The impact of Katrina hit some groups harder but overall leveled a serious blow to the residents of the entire region.



### ***Summary of Health Status Findings***

Prior to Katrina, the New Orleans area had a population with significant health care needs and large racial disparities in health, but these health challenges were not washed away by the floods. Even though some of the most frail and vulnerable have not been able to return home, the population remaining in the Greater New Orleans area still faces major physical and mental health concerns. More than one in ten adults rated their physical health as fair or poor, and over four in ten adults in the area reported having a chronic condition or disability. One in twelve rated their mental health as fair or poor, with symptoms of depression and PTSD present in the population. Access to health care and treatment will be important to meet the needs of the people of New Orleans, but this may prove difficult in the post-Katrina health system.

Though health problems are widespread across the population, some groups are facing even greater health challenges than their neighbors. Health disparities for African Americans persist in the New Orleans area. The elderly in the area have high rates of health problems—two thirds of this group is living with a chronic condition or disability. The economically disadvantaged and the uninsured have relatively higher rates of physical and mental health problems than others yet face the added difficulty of seeking the care they need with more limited personal resources.

The people in the New Orleans area are struggling with a wide range of challenges as they try to rebuild their lives and their city in the aftermath of Hurricane Katrina and the subsequent flooding. With four in ten adults (39%) reporting a decline in quality of life since Katrina, it is clear that health care is one of a myriad of challenges confronting the New Orleans population.



## HOW ARE NEW ORLEANS AREA RESIDENTS OBTAINING HEALTH CARE?

Many New Orleans area residents faced challenges obtaining needed care before Katrina's waters inundated the region. The devastation of the health care infrastructure, both in terms of destroyed facilities and the exodus of health professionals, coupled with the storm's impact on residents' physical and mental health status, created new health access challenges for those Katrina survivors still living and working in the region.

Katrina's levee breaches washed away much of a health care system that worked for some but left many low-income residents uninsured and reliant on the Charity Hospital system. Prior to the storms of 2005, more than one in five New Orleans area residents lacked health insurance coverage.<sup>11</sup> Nearly 90% of the healthcare delivered to the area's uninsured was provided by the state-run public hospital, the Medical Center of Louisiana at New Orleans (MCLNO), which consisted of two hospitals on the MCLNO campus – Charity and University Hospitals.<sup>12</sup> The region was not lacking in healthcare capacity for the insured, however; the 16 major acute care hospitals in the area provided an inpatient capacity of four beds per 1000 people, which exceeded the national average by 1.2 beds per 1000 (Appendix A).<sup>13</sup>

When Hurricane Katrina and the resulting flood hit the New Orleans area, all healthcare facilities in New Orleans were closed, and many were damaged beyond repair. At the time of the survey, six of the 16 major hospitals in the region were still closed, and many of those that were open were operating at reduced capacity. Charity Hospital, the region's principal provider of mental health services for the low-income uninsured, was among the facilities deemed irreparably damaged. Both Charity and University Hospitals remained closed at the time of this survey in fall 2006, although University Hospital reopened for trauma care and limited inpatient services on November 20, 2006. At the time of the survey, a trauma center in Jefferson Parish and limited urgent care services in a converted department store in downtown New Orleans, where the wait for patients with non-emergent conditions sometimes exceeded 10 hours, were the primary health resources available to replace Charity.<sup>14</sup>

As state and local policymakers and planners reconstruct and reshape the New Orleans area health care system to meet the needs of the region's post-Katrina population, their efforts have been hampered by a lack of information about the current health coverage and utilization patterns among the region's inhabitants. The findings that follow help fill this gap by providing a portrait of health coverage, access, and utilization for area residents one year after Katrina, with a particular focus on Orleans Parish and the populations most likely to experience difficulties obtaining care.

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<sup>11</sup> Louisiana Department of Health and Hospitals (2005) *Louisiana's Uninsured Population: A Report from the 2005 Louisiana Health Insurance Survey*. Accessed July 6, 2007: <http://www.dhh.louisiana.gov/offices/publications/pubs-311/Louisianas%20Uninsured%20population%20survey%20report%202005.pdf>

<sup>12</sup> Rudowitz, R; Rowland, D; Shartzter, A. "Health Care in New Orleans Before and After Hurricane Katrina" *Health Affairs* 25 (2006): w393-w406.

<sup>13</sup> Kaiser Family Foundation, "Louisiana: Hospital Beds per 1,000 Population, 2004," <http://www.statehealthfacts.org/cgi-bin/healthfacts.cgi?action=profile&area=Louisiana&category=Providers+%26+Service+Use&subcategory=Hospitals&topic=Beds> (accessed 18 June 2007)

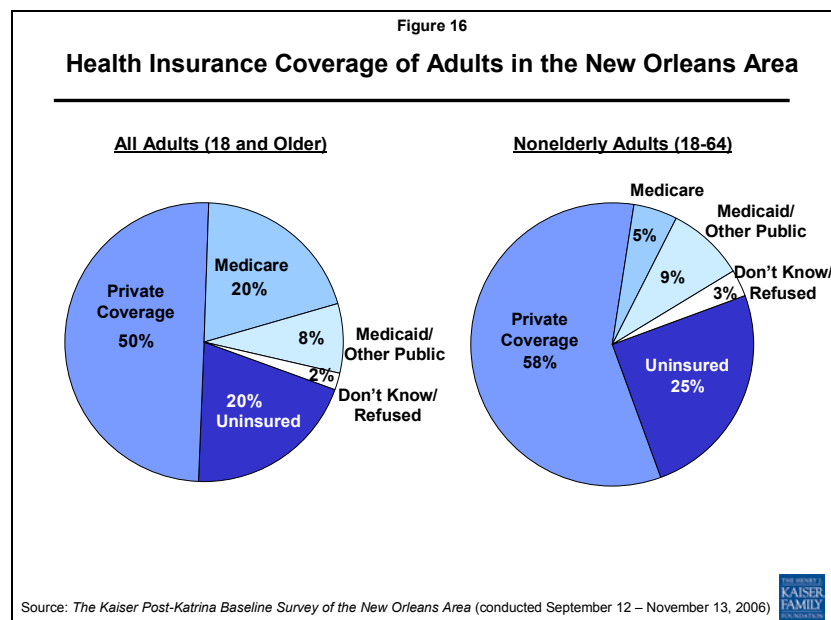
<sup>14</sup> Oberman, Mira. "Landmark New Orleans Hospital Operates in Department Store." *Terra Daily*. August 23, 2006. Accessed on June 21, 2007: [http://www.terradaily.com/reports/Landmark\\_New\\_Orleans\\_Hospital\\_Operates\\_In\\_Department\\_Store\\_999.html](http://www.terradaily.com/reports/Landmark_New_Orleans_Hospital_Operates_In_Department_Store_999.html)

## HEALTH INSURANCE COVERAGE

Having health care coverage helps to promote access to health care services. The uninsured use fewer services, are more likely to delay or do without care, and suffer poorer health outcomes than those with insurance. While most elderly Americans have coverage through Medicare, non-elderly adults rely on a mix of employer-sponsored coverage and Medicaid for poor parents and people with disabilities. As a result of gaps in coverage, adults under age 65 comprise the bulk of both the nation's and Louisiana's uninsured population.

### Post-Katrina New Orleans still has a large uninsured population

In the fall of 2006 roughly half of adults in the New Orleans area reported that they received their health coverage through the private market, with the majority of those receiving coverage through their employer (40%) and the balance buying coverage on their own (10%). One in five respondents reported coverage through Medicare, and roughly 8% reported primary coverage through Medicaid or other public programs. However, 20% of adult residents reported no source of insurance coverage whatsoever – a rate significantly above the 15% of adults who are uninsured nationally.<sup>15</sup>



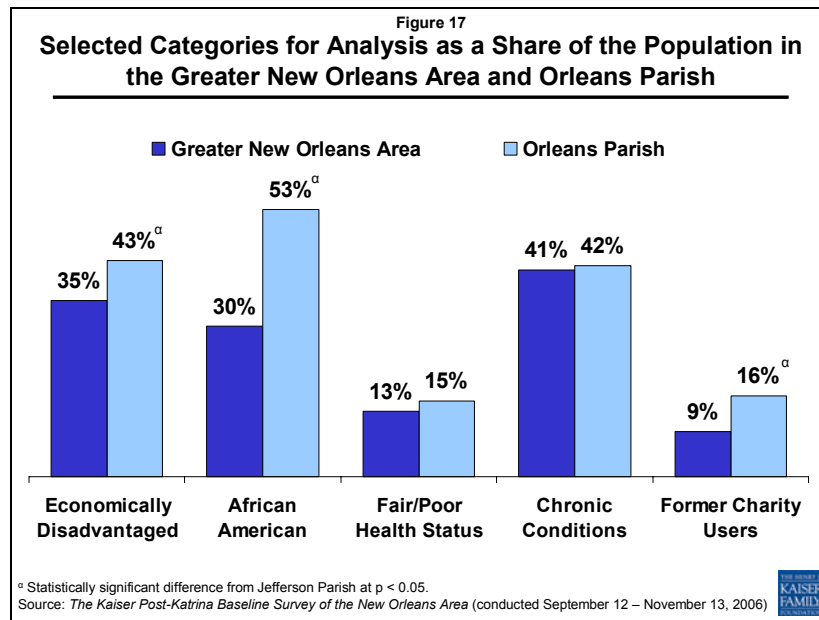
Among non-elderly adults between age 18 and 65, 25% reported no source of insurance coverage, substantially higher than the national average of 17% for this group.<sup>16</sup> Although high rates of uninsurance were a problem in the New Orleans area prior to the storm, these data indicate that the population in the region after Katrina still faces substantial difficulties obtaining health coverage and overall uninsurance rates remain high.

<sup>15</sup> Source for national statistics: Kaiser Commission on Medicaid and the Uninsured and Urban Institute analysis of the March 2006 Current Population Survey, available at [www.statehealthfacts.org/r/coverage.cfm](http://www.statehealthfacts.org/r/coverage.cfm), last accessed July 17, 2007.

<sup>16</sup> Ibid.

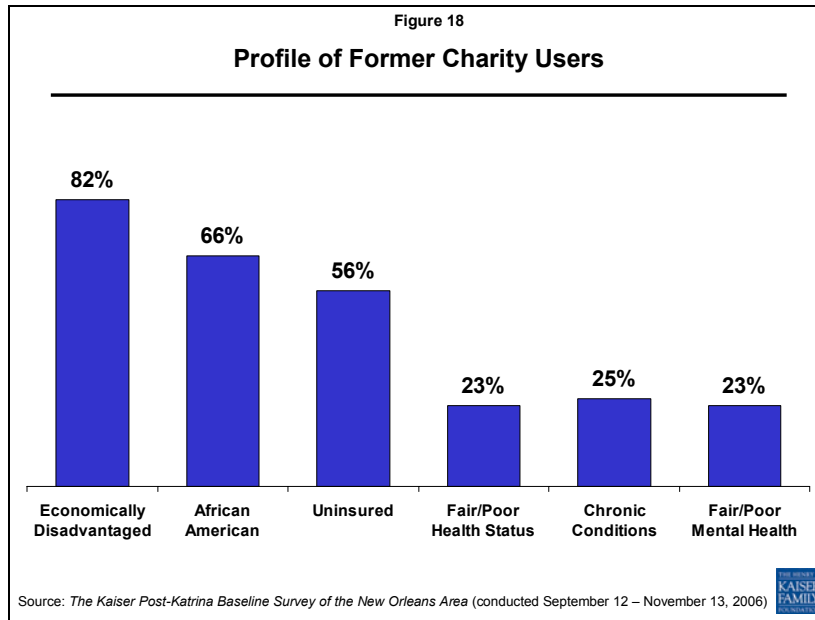
## Uninsurance rates higher among certain vulnerable populations

Because the burden of uninsurance and difficulties accessing needed care fall unequally across a community, we focus in this report on certain populations that may have experienced the greatest difficulties obtaining coverage and accessing care in Post-Katrina New Orleans. More than third (35%) of residents in the New Orleans area can be defined as economically disadvantaged, 30% were African American (a group in New Orleans with a long history of disparities in health coverage and access), significant numbers reported chronic conditions (41%) or poor health status (13%) that require ongoing medical care, and nearly one in ten (9%) area residents (many of whom were also included in these other groups) previously relied on the now defunct Charity Hospital for their care. These former Charity users were more prevalent in Orleans Parish than throughout the entire region.

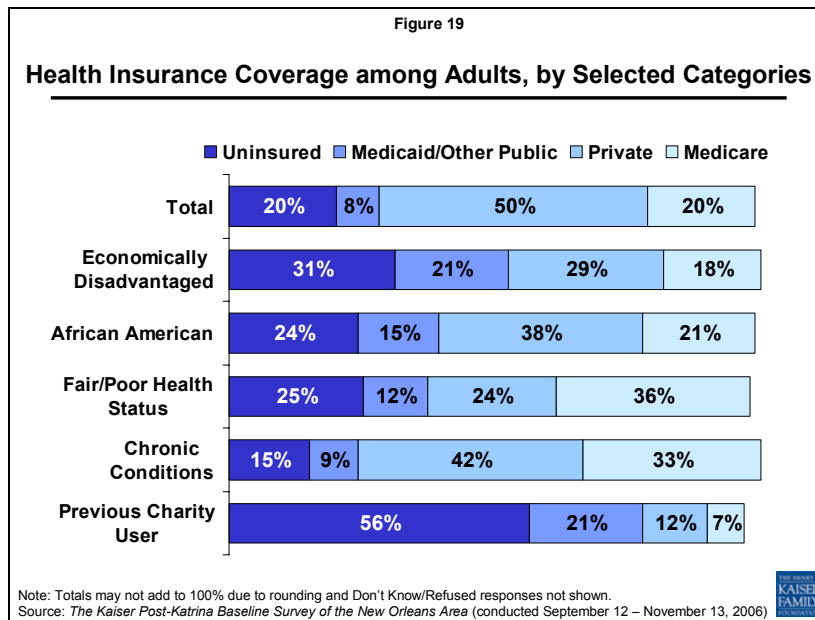


A profile of the population who formerly relied on Charity Hospital shows that the majority of this group was economically disadvantaged, pointing to the role the hospital system played in delivering care to those with limited resources. Two-thirds of former Charity users were African American. About a quarter of those who previously relied on Charity Hospital for care reported fair or poor health status and a similar share had a chronic condition. Following the closure of Charity Hospital, this is a group that can be expected to face particular challenges accessing health services post-Katrina.

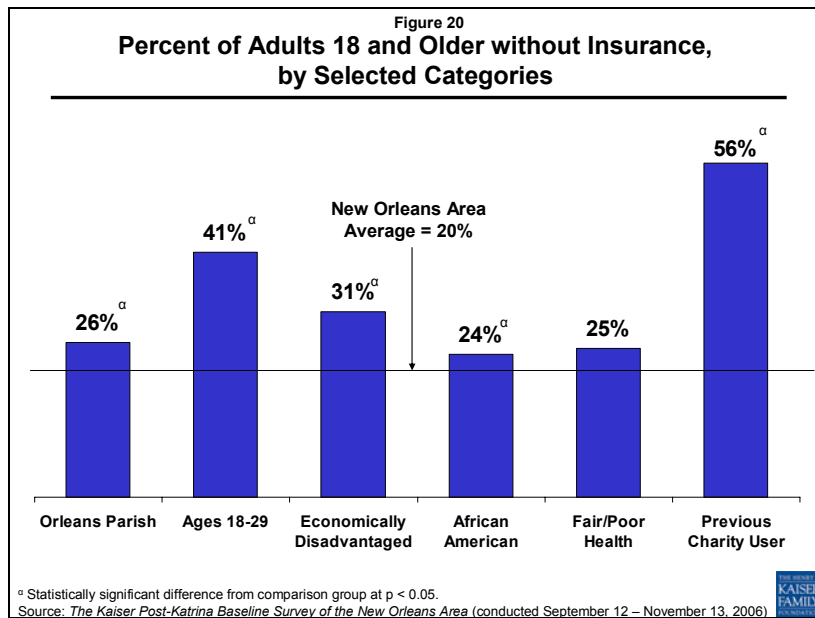




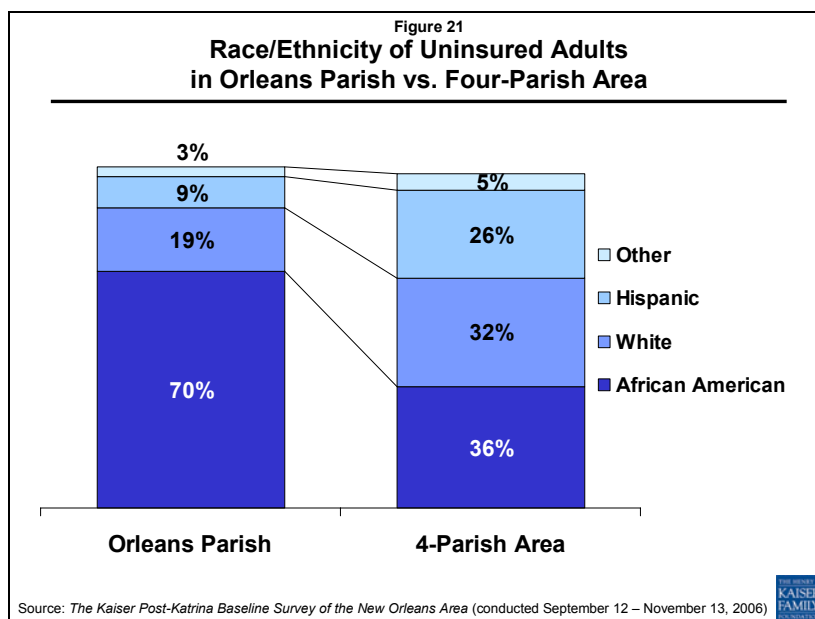
Assessing the likelihood of being uninsured in post-Katrina New Orleans, adults who were previous Charity users were the most likely to be uninsured (56%). Nearly one in four (24%) African Americans lacked coverage and nearly one in three (31%) in the group defined as economically disadvantaged were uninsured. Those with chronic conditions, the prevalence of which generally increases with age, were slightly less likely to be uninsured since one in three were covered by Medicare. Still, 15% of those with chronic conditions reported no source of health insurance coverage in the fall of 2006.



Uninsurance rates were also higher among those residing in Orleans Parish (26%) and young adults age 18-29 (41%). It is noteworthy that more than half (56%) of those whose primary source of care before the storm was the Charity Hospital system reported no source of insurance coverage and that 21% of former Charity users depended on Medicaid for their coverage.

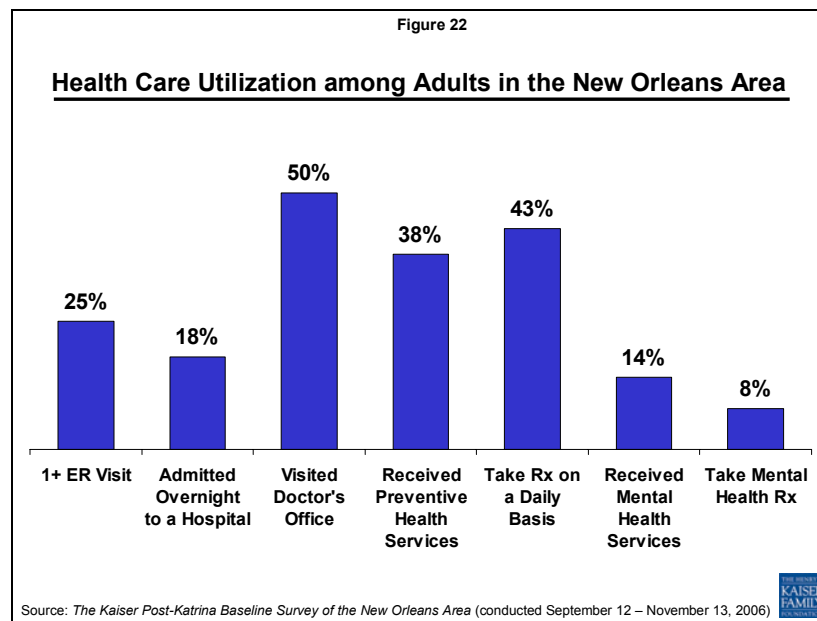


Racial and ethnic disparities in coverage are especially pronounced in Orleans Parish, which has a higher proportion of African American residents than the surrounding parishes. The uninsured in Orleans Parish are predominantly African American (70%), whereas they comprise only 36% of the uninsured in the entire Greater New Orleans, four-parish area. This finding is driven both by African Americans comprising a greater proportion of the total population in Orleans Parish (53%) than in Jefferson Parish (19%) and by higher rates of uninsurance among those African Americans in Orleans Parish (33%) than in Jefferson Parish (15%).



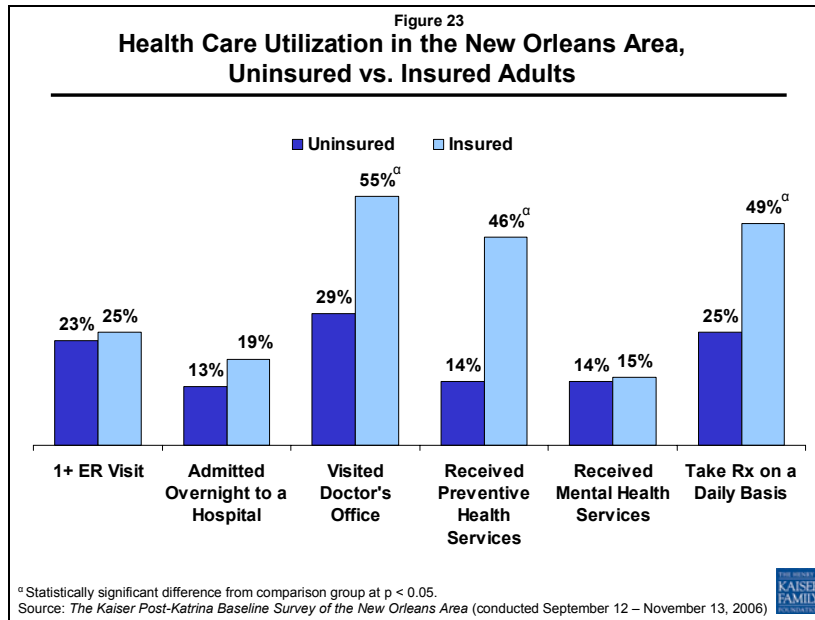
## USE OF HEALTH CARE SERVICES

Despite challenges in accessing and affording care in post-Katrina New Orleans, the need for services is evident in the roughly half of all area residents who reported visiting a doctor's office in the previous six months and the 43% who reported taking at least one prescription medication each day. One in four reported a trip to the emergency room in the past six months and nearly one in five (18%) reported having been admitted to a hospital overnight.



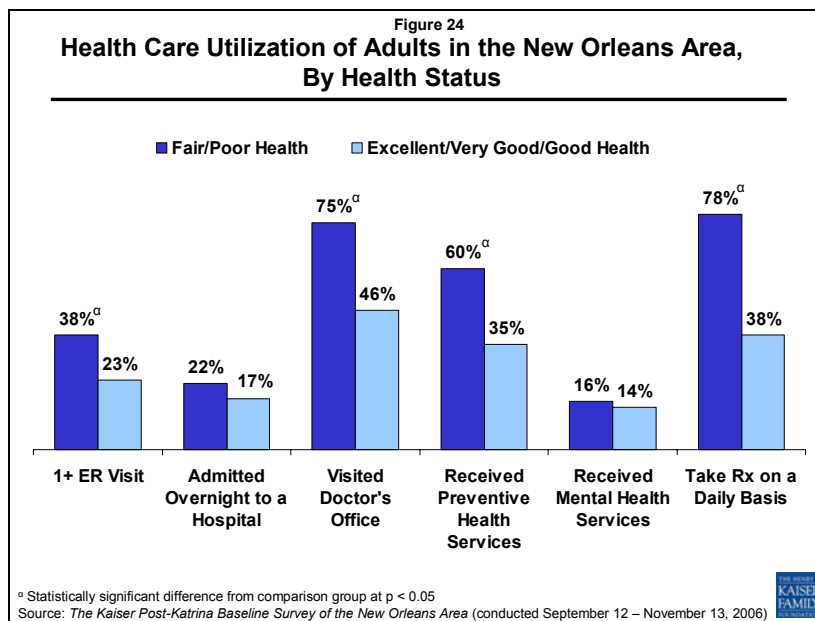
### **Utilization lower among uninsured**

These overall utilization patterns mask important differences between those residents who have insurance and those who do not. Uninsured residents had significantly lower utilization rates across three of the measures asked about in the survey, with only 29% reporting a visit to a physician's office over the last six months compared to 55% of their insured counterparts. Some portion of these differences could be due to the uninsured being younger than the insured population; however, as discussed earlier, the uninsured did report worse physical and mental health than the insured, which should lead to greater utilization. Given their lower self-reported physical and mental health status, lower utilization rates among the uninsured suggest that they may face particular barriers in obtaining needed care in post-Katrina New Orleans.

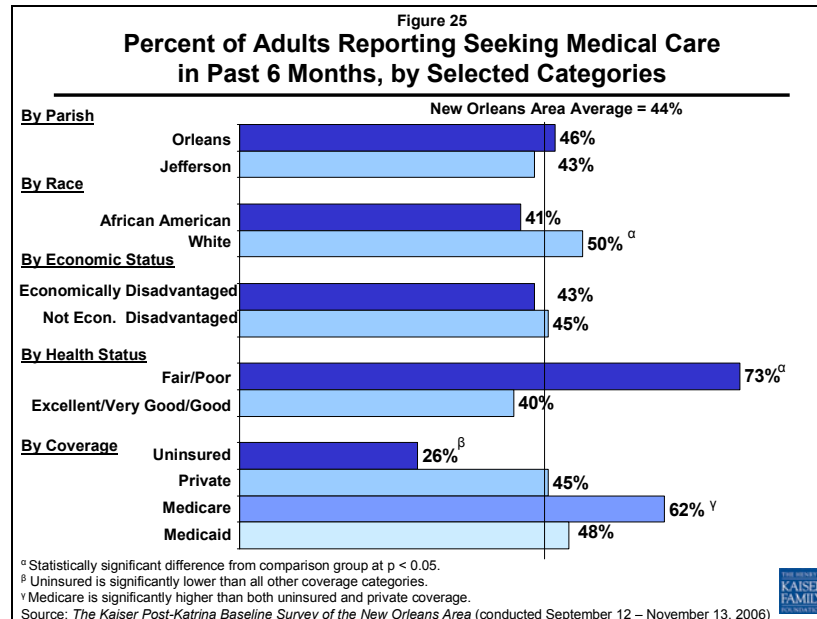


**Utilization higher for those in fair or poor health**

Indeed, when looking at the entire population, those with the greatest need for health care services were more likely to utilize services. Those reporting fair or poor health status were much more likely than those in better health to have been to an emergency room, seen a doctor, received preventive services, or to be taking prescription medication on a daily basis. Nearly one in four (38%) of those in fair or poor health used an ER and three out of four visited a doctor in the last six months and have prescription medications.



Overall, the fraction of the population who sought medical care in the last six months varied significantly across several important subgroups. About three quarters (73%) of those reporting fair or poor health status sought medical care. Those with health coverage were more likely to report seeking medical care than the uninsured. Individuals with chronic health conditions such as hypertension, diabetes, or asthma require consistent access to needed medical care and prescription drugs to maintain their health, and disruptions in access and utilization of care of the type experienced in the aftermath of Katrina can lead to significant declines in health status. Reflective of their greater health needs, care-seeking rates were higher for those with Medicare coverage than for younger adults with private or Medicaid coverage.

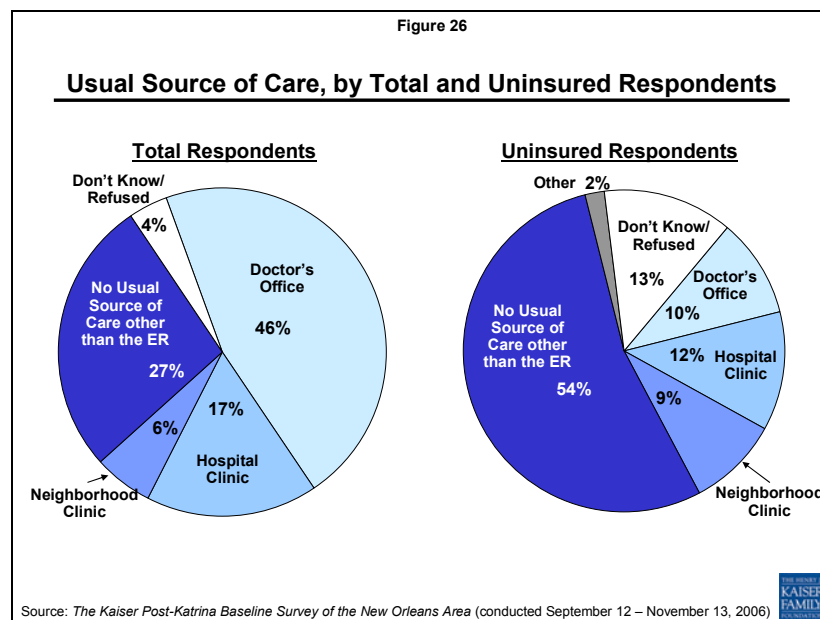


## ACCESS TO HEALTH CARE

Because Katrina caused such profound disruption to nearly all aspects of life in the New Orleans region, individuals faced a range of challenges in accessing needed care post-Katrina. Individuals relocated within the region to areas where they did not know the doctors or hospitals; hospitals themselves were shuttered or offered greatly reduced services (Appendix A); and physicians and their medical staff left the area in significant numbers. A July 2006 report by Blue Cross Blue Shield of Louisiana found a 51% reduction in the number of physicians filing claims in the state post-Katrina, with 96% of this reduction occurring in Orleans Parish.<sup>17</sup> Taken together, these factors made it difficult for many New Orleans area residents to maintain their connections to their usual hospital, clinic, and physicians. One in four adults (27%) in the area post-Katrina reported they have no usual source of care or rely on an ER for their care.

### Post-Katrina New Orleans area residents less likely to have a usual source of care

Individuals who report having a doctor or clinic that they consider their “usual source of care” are far more likely to be able to access needed care in an appropriate and timely fashion. Research has demonstrated that those with a usual source of care are less likely to experience unnecessary hospitalizations or visits to the emergency room for conditions that could more appropriately be treated in a clinic or doctor’s office.<sup>18</sup> Post-Katrina, 73% of adult residents in the New Orleans area reported a usual source of care compared to 84% nationally.<sup>19</sup> With many physicians leaving the area or relocating their practice in the aftermath of Katrina, many residents are now without a doctor or clinic they can turn to for their primary care needs. Indeed, 46% of respondents identified a doctor’s office as their primary usual source of care, a smaller share than the two-thirds (66%) who do so nationally.<sup>20</sup>



<sup>17</sup> Louisiana Health Care Redesign Collaborative, “Region 1 Health Care Profile: A Review of Health Care Workforce and Services in Orleans, Jefferson, Plaquemines and St. Bernard Parishes Post-Hurricane Katrina.” Presented for the Louisiana Health Care Redesign Collaborative 11/21/2006.

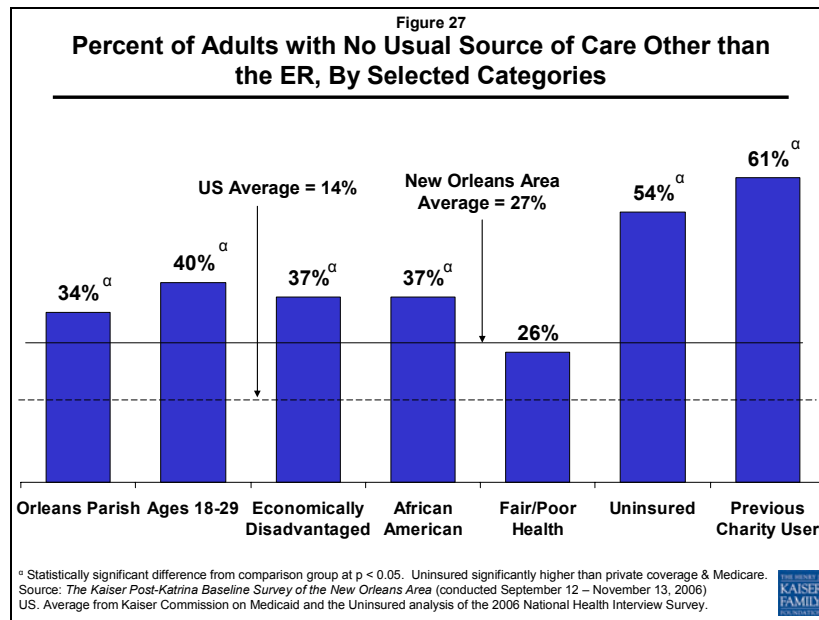
<sup>18</sup> Petersen, et al. 1998. “Nonurgent Emergency Department Visits: The Effect of Having a Regular Doctor”, *Medical Care*, 36(8):1249-1255; Bindman et al. 1996. “Primary Care and Receipt of Preventive Services,” *Journal of General Internal Medicine*, 11(5):269-276; Sarver, J et al. 2002. “Usual Source of Care and Nonurgent Emergency Department Use,” *Academic Emergency Medicine*, 9(9): 916-923.

<sup>19</sup> Source for national statistics: Kaiser Commission on Medicaid and the Uninsured analysis of the 2006 National Health Interview Survey.

<sup>20</sup> Ibid.

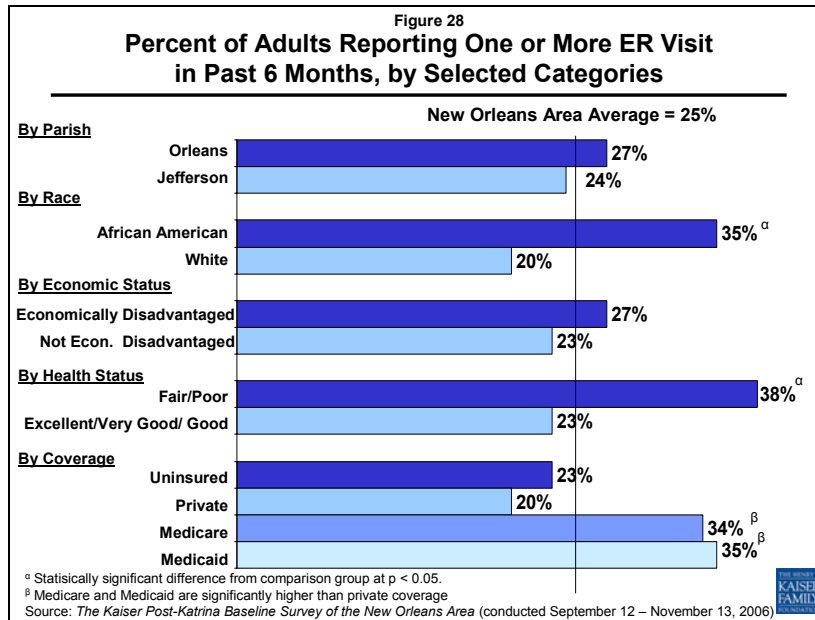
Over a third (34%) of Orleans Parish residents reported no usual source of care other than the ER in the fall of 2006. Access to a usual source of care is even more problematic for the uninsured. More than half of uninsured area residents (54%) reported no usual source of care other than the ER (roughly the same as the proportion nationally), and only 10% reported a physician's office as their usual source of care (compared to 27% of the uninsured nationally).<sup>21</sup> Given the loss of provider capacity in post-Katrina New Orleans and the widespread disruption to the health care system, this lower rate of identifying a physician's office as the usual source of care is not surprising.

Other groups reporting percentages with no usual source of care other than the ER above the national and New Orleans area average included African Americans (37%) and the economically disadvantaged (37%). Not surprising given the closure of the Charity Hospital system after Katrina, 61% of previous users of the Charity Hospital system reported they had no usual source of care besides an ER.



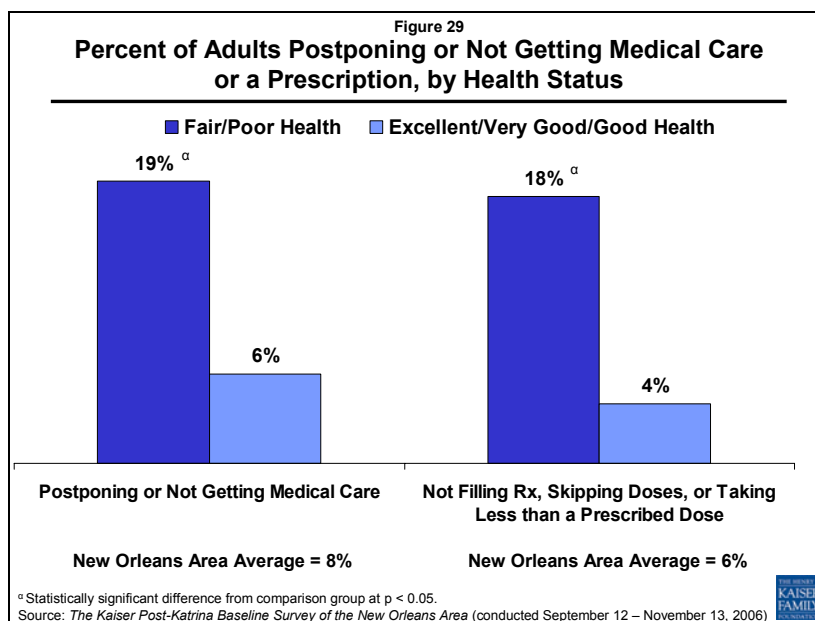
Although older and sicker populations can be expected to report higher rates of emergency room utilization due to their greater likelihood of experiencing emergent health conditions (as they do), higher rates among other groups more likely reflect inadequate access to primary care in post-Katrina New Orleans. When affordable access to outpatient services is not readily available, emergency rooms often serve as the ultimate safety net for those needing health care. The massive disruption to the entire New Orleans area health care system appears to have made it more difficult for some populations to connect with their pre-Katrina doctor or clinic, forcing higher proportions to seek care through emergency departments. Notably, 35% of African Americans reported an ER visit in the past six months compared to 20% of whites and one in three with Medicaid or Medicare reported utilizing ER services in the past six months.

<sup>21</sup> Ibid.



**Unmet need evident across all populations in post-Katrina New Orleans**

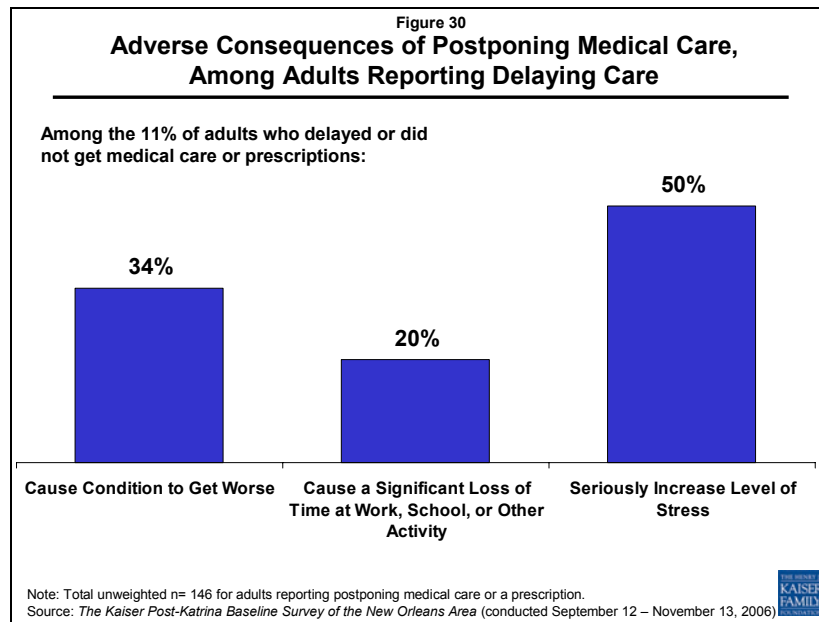
Another important measure of access to quality medical care is whether individuals report postponing or not getting medical care when they needed it. This measure of unmet need is frequently used to identify gaps in care and to examine factors contributing to difficulties accessing needed care. Not surprisingly, the percent of adults reporting postponing or not getting medical care was slightly higher in Orleans Parish than in Jefferson (where disruption to the health care system was far less) and was significantly higher among those reporting fair or poor health status. The percent reporting postponing or not getting medical care was roughly the same among the uninsured and the insured (8%). The disruption to the health care system post-Katrina appears to have created barriers that affected everyone, regardless of insurance coverage or economic situation.



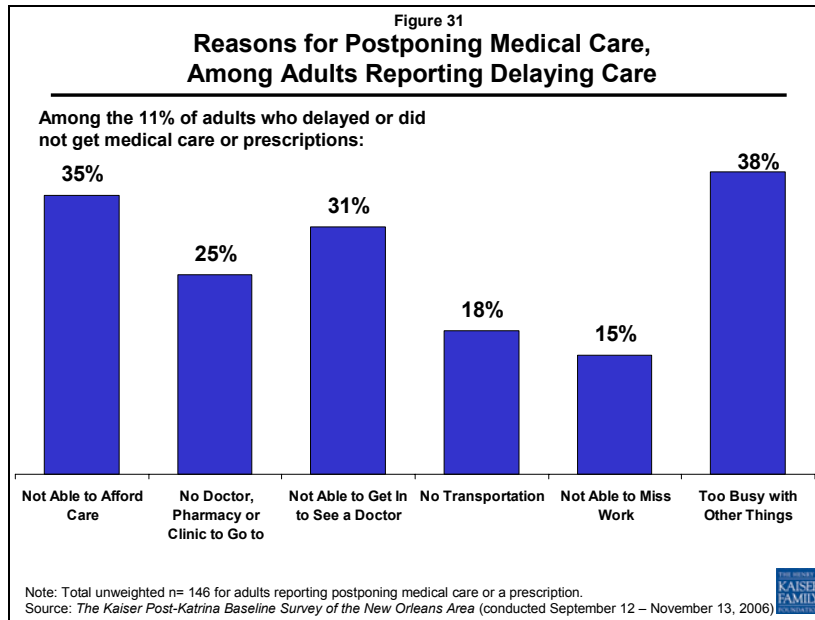


Many adults rely on prescription medications to maintain their health and quality of life. Indeed for those suffering from chronic conditions such as diabetes or hypertension, going without medication can lead to serious deteriorations in physical health. Katrina disrupted access to prescription drugs in a variety of ways, including closing pharmacies and doctors' offices needed to obtain refills. Overall, 6% of area residents reported not being able to fill a prescription, skipping doses or taking less than a prescribed dose during the previous six months, with those in fair or poor physical health exhibiting a higher rate.

When asked about the consequences of going without needed care or medication, 34% of those who skipped or postponed care reported that forgoing needed care led to the condition getting worse, 20% reported a significant loss of time at work, school or other activity, and fully half of all respondents who reported delaying or not getting needed care said that it led to a serious increase in their level of stress.

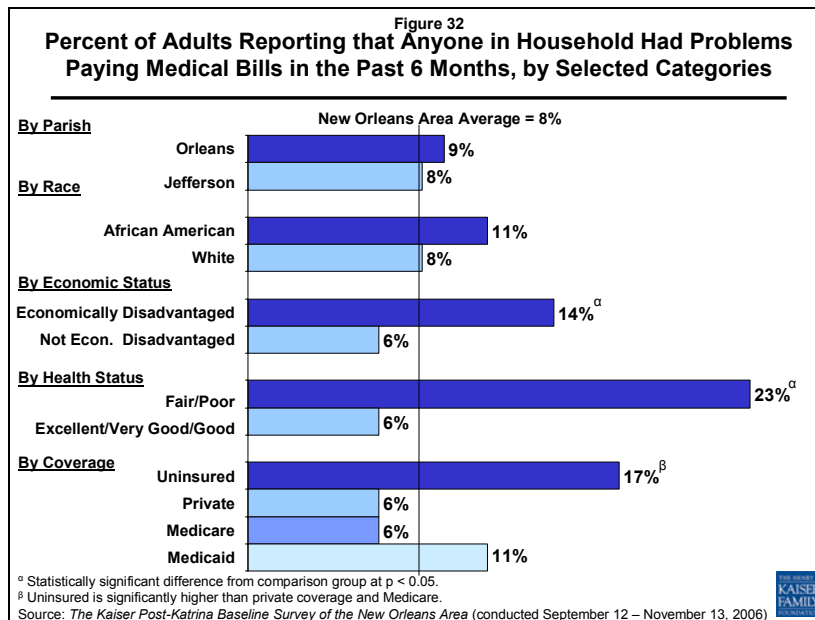


Reasons cited for not getting needed care or prescription drugs range from cost (35% of those who put off care said this was a reason) to not being able to get time off from work to see a doctor (15%). About four in ten (38%) of those who postponed getting medical care or a prescription did so because they were overwhelmed taking care of other issues. Nevertheless, more than one in three postponed needed medical care due to an inability to afford the cost of care and one in four reported that they had no doctor, clinic, or pharmacy to turn to for needed care.



**Financial barriers to accessing needed care**

Financial barriers to care often create access problems for those not able to afford care. However many of those who are able to obtain health care services often have difficulty paying the bill after the fact. Overall, 8% of New Orleans area residents reported that they or another member of their household had problems paying medical bills during the previous six months. These rates were significantly higher among the uninsured (17%), those with chronic conditions (14%), and the economically disadvantaged (14%), and highest for those in fair or poor health who are more likely to need care.



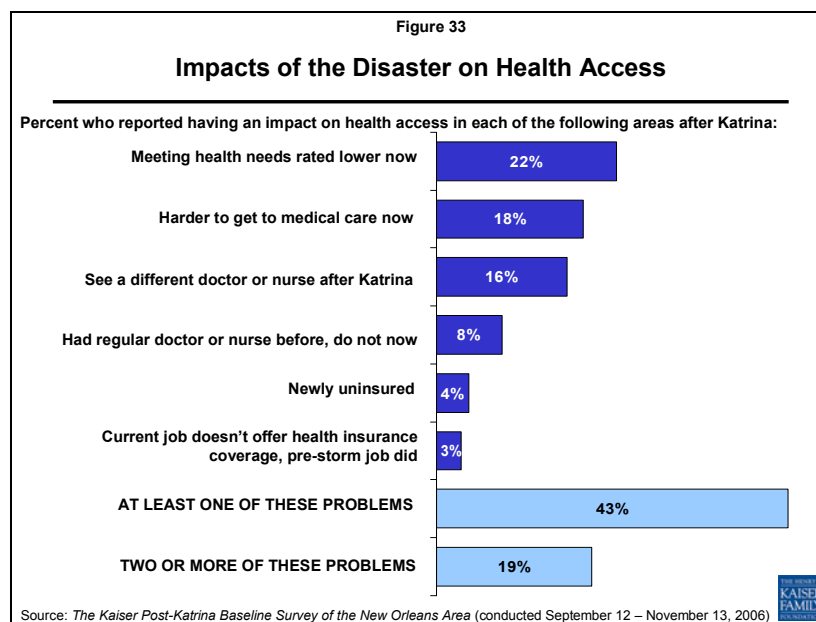
## **IMPACT OF HURRICANE KATRINA ON HEALTH COVERAGE AND ACCESS**

The devastation and disruption caused by Katrina and the levee breaches exacerbated many health care issues that existed in the New Orleans area long before the storm made landfall. The discussion above has highlighted the current state of coverage, access, and utilization in the New Orleans area and the health challenges the area faces in the recovery. However, for many area residents the aftermath of Katrina has had an adverse impact on their health coverage and access, creating or worsening health access problems and further complicating their efforts to return to life as it was in New Orleans before the storm.

### **Four in ten area residents report some impact on health access**

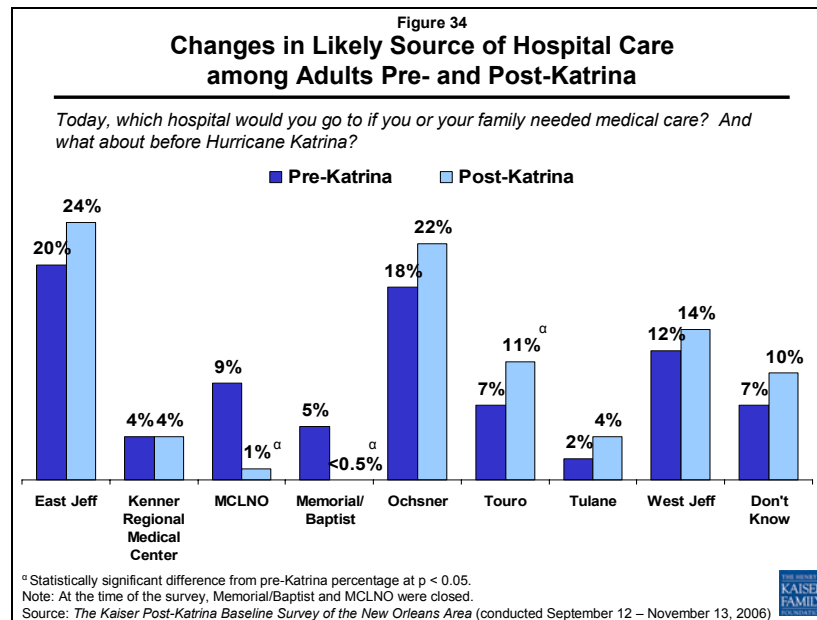
Four in ten (43%) area residents report at least one significant impact on their health access and coverage after Katrina. Four percent of adults in the region (6% among those who previously had health insurance) were newly uninsured post-Katrina. Three percent of area residents (8% among those employed pre- and post-Katrina whose pre-storm job offered coverage) reported that they had access to health insurance through the workplace before the storm, but no longer did so at the time of the survey. Twenty-two percent reported declines in their ability to meet their health care needs, and 18% reported that transportation to medical care had become more difficult.

With the significant decline in the number of physicians practicing in the region (see Appendix A), three in ten of those with a regular provider pre- and post-Katrina (29%, or 16% of all adults) reported that they saw a different doctor or nurse after Katrina, and 13% of those who had a regular provider pre-Katrina – or 8% of adults – reported no longer having a regular doctor or nurse. Those who lost their regular health provider or who see a different doctor or nurse after Katrina faced disruptions in their care that can be particularly difficult for those with chronic conditions or other serious health needs. Many were also coping with the loss of their medical records and established patterns of treatment.



## Shifting patterns in likely hospital use

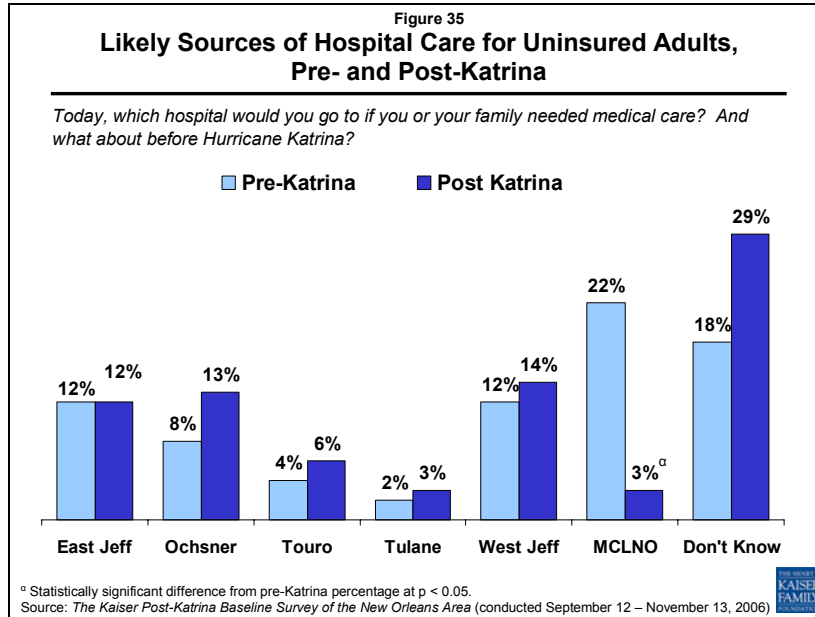
Because Katrina's waters caused hospital closures and widespread population migration within the New Orleans area, many residents also reported a change in the facility they considered "their hospital," i.e. where they would likely turn should they need hospital-based care. As detailed in Appendix A, at the time of this survey, only three of the nine acute care hospitals that operated in Orleans Parish pre-Katrina had re-opened, and due in part to difficulty finding workers to staff beds, only 48% of the pre-Katrina hospital beds in the region were staffed as of November 2006. For the residents living in the Greater New Orleans area when the survey was conducted, nearly 2 in 5 identified either East Jefferson (20%) or Ochsner Hospitals (18%) as their likely source of hospital-based care prior to Katrina; post-Katrina, both hospitals continue to be identified as the likely source of care for nearly half of the residents.



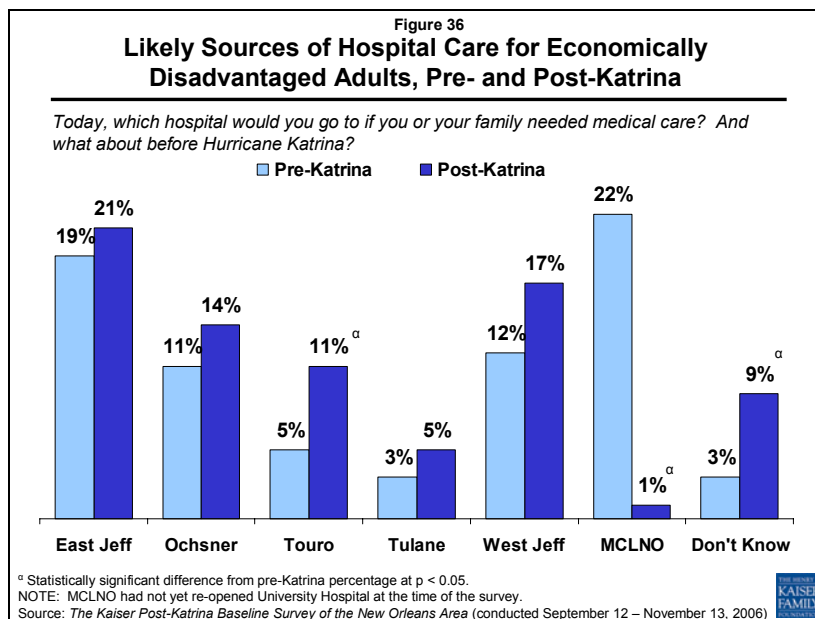
While 9% of area residents previously considered the Medical Center of Louisiana at New Orleans (MCLNO, of which Charity Hospital was main facility) their hospital, only 1% considered MCLNO their hospital in the fall of 2006. At that time MCLNO had reopened only limited outpatient and trauma services, and had not yet reestablished inpatient capacity at the University Hospital facility, which was reopened on November 20, 2006.

**Uninsured and economically disadvantaged face most disruption in care**

Looking at these patterns among the uninsured, prior to Katrina 22% of those now uninsured reported MCLNO as their likely source of hospital care. After the storm, 3% of uninsured adults still considered MCLNO as their hospital, even though the hospital itself was closed. However, it is very likely that this percentage rose significantly after the reopening of University Hospital as part of the MCLNO complex.



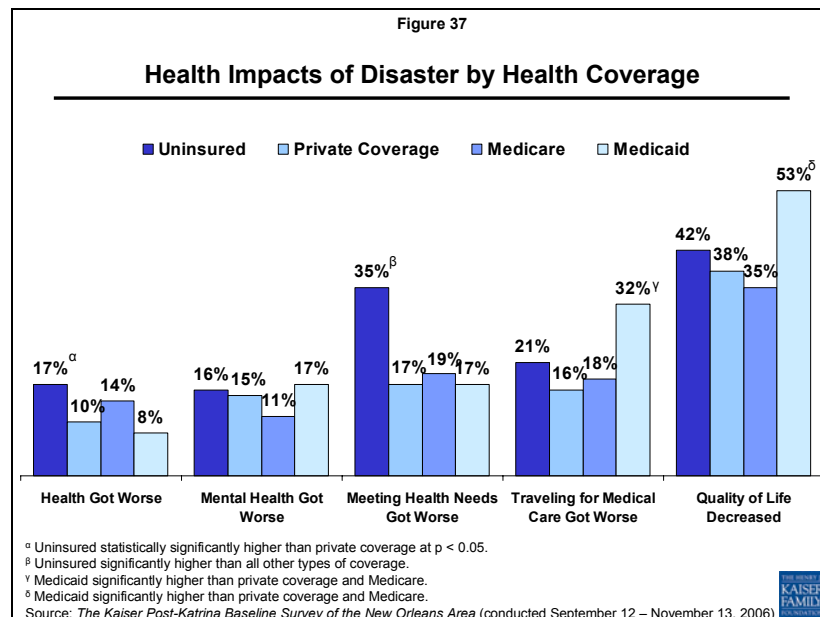
Patterns of likely hospital use among the economically disadvantaged also shifted following Katrina. There was a significant increase in the proportion of the economically disadvantaged who reported Touro Hospital was the hospital they would be likely to use; 5% of this group viewed Touro as their primary hospital pre-Katrina, doubling to 11% after the storm. Touro was the first inpatient facility to re-open in Orleans Parish after Katrina, reopening its emergency department on September 28, 2005.



Similar to the uninsured (most of whom (54%) were also in this group), the economically disadvantaged population relied heavily on the Charity Hospital system prior to Katrina. More than one in five (22%) identified MCLNO as their likely source of hospital care before the storm, with 1% identifying MCLNO as their hospital at the time of the survey even though this facility was still largely shuttered at the time.<sup>22</sup> This large decrease in the proportion identifying MCLNO as their primary hospital was offset by increases among other the hospitals across the region, although nearly one in ten (9%) of the economically disadvantaged report not knowing where they would turn in post-Katrina New Orleans should they need hospital care, up from 3% before the storm.

### Uninsured and Medicaid enrollees report significant health impacts

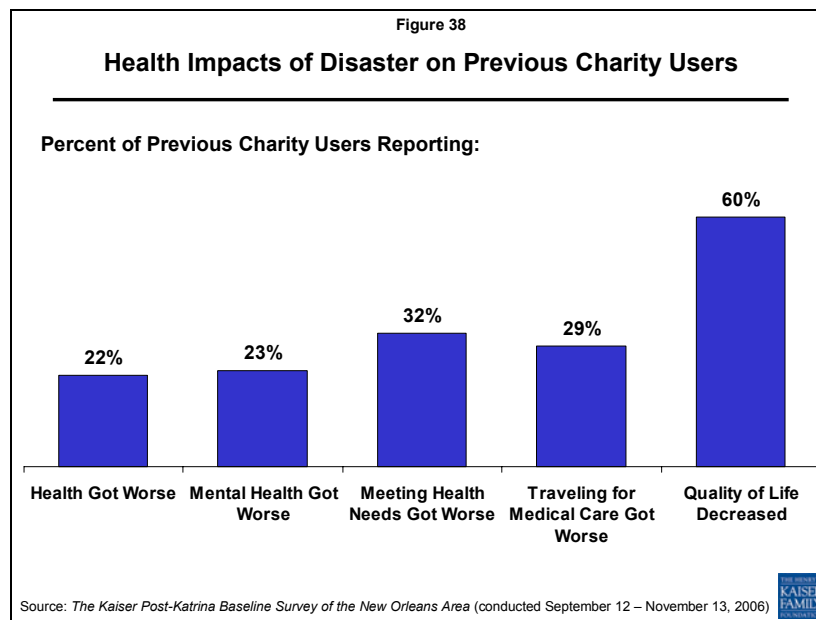
Beyond this differential effect on hospital care-seeking behavior, the experience of New Orleans area residents in terms of Katrina's broader health impacts varied in important ways according to health insurance status. The uninsured were the most likely to report that their physical health got worse, that their job benefits were worse post-Katrina (data not shown), and that meeting their health needs after the storm had become more difficult. Those with Medicaid coverage, who were among the sickest and poorest respondents in the region, were the most likely to report that traveling for medical care became more difficult and that their overall quality of life had decreased since Katrina. Among those who reported a decrease in their quality of life, 24% reported that their mental health got worse at a time when behavioral health services have become difficult to find.



<sup>22</sup> MCLNO has since re-established emergency and several inpatient services at University Hospital

### Former Charity Users report access difficulties post-Katrina

Finally, area residents who relied on the Charity Hospital System as their usual source of care prior to Katrina reported substantial health care challenges in post-Katrina New Orleans. Nearly a quarter reported a decline in their physical (22%) or mental (23%) health, and 32% reported that meeting their health needs became more difficult after the storm. Six in ten (60%) of the adults who were former Charity users reported a decline in their overall quality of life.



### **Summary of Health Coverage, Utilization, and Access Findings**

Even before August 29, 2005, many New Orleans area residents – particularly the uninsured and economically disadvantaged – faced significant challenges in accessing needed health care services. Findings from this survey indicate that uninsurance remains high among the population currently in the region and that many face barriers when attempting to obtain needed care. With a devastated health care safety net and a reduced supply of medical professionals, post-Katrina New Orleans in the fall of 2006 offered even fewer places to turn for those with health needs and limited resources. While overall coverage and access patterns reflect challenges faced by all New Orleans area residents in accessing care post-Katrina, several segments of the population – such as the economically disadvantaged, those with chronic conditions, and in particular former users of the Charity Hospital system – face significant coverage and access problems at a time when they are struggling to cope with the range of disruptions caused by the storms of 2005.

African Americans, the economically disadvantaged, those in fair or poor health, and former users of the Charity Hospital system were all more likely to report being uninsured. In Orleans Parish, 70% of the uninsured were African American. Fifty-four percent of uninsured adults in post-Katrina New Orleans reported having no usual source of care other than the emergency room.

More than a quarter (28%) of adults in fair or poor health in the New Orleans area reported postponing or not getting needed care, including prescription drugs. Among the 11% overall who reported postponing or not getting care, one in three (34%) said their condition got worse; one in five (20%) reported a significant loss of time at work, school or other activity; and half of all those surveyed who postponed needed care said it led to seriously increased levels of stress in their already stressful lives.

Reasons cited for delaying needed care included not being able to get in to see a doctor (31% of those who postponed or did not get care), no transportation (18%), and not being able to afford the cost of care (35%). Indeed, health care costs were a major issue for many in the region but were a particular concern for the uninsured and the economically disadvantaged. Even when cost did not prevent respondents from obtaining needed care, many reported problems paying medical bills afterward. Overall, 8% reported that they or someone in their family had difficulties paying medical bills during the previous six months, with the economically disadvantaged (14%), those with chronic conditions (14%), and the uninsured (17%) all more likely to report these problems.

Although this survey does not allow for direct measurement of changes in coverage, utilization, and access pre- and post-Katrina, self-reported measures of the storm's impact among survivors living in the New Orleans area provides some indication of Katrina's profound effect. Among those working both before and after Katrina, 5% reported that they lost the ability to obtain health coverage through their job. Three in ten area residents who reported a usual source of care pre- and post-Katrina (29%) now see a different health care provider. Five percent reported no longer having any usual source of care, and more than one in five (22%) reported that their ability to meet their health care needs has deteriorated since the storm.

Findings from this survey document that previous users of the Charity Hospital system, together with the broader uninsured and Medicaid populations, were disproportionately affected by Katrina's devastation. But they were not alone. Hospital closures and the loss of medical professionals have affected nearly everyone who lives in post-Katrina New Orleans. Indeed, the storms of 2005 had a leveling effect across some health access and utilization measures, creating new access to care barriers for many still living in the region. Efforts to reconstruct and hopefully improve the region's health care system should be informed by consideration of the current health coverage, utilization, and access to care issues facing survivors as they continue their ongoing struggle to rebuild their city and their lives.





## FOCUS ON HOUSEHOLDS WITH CHILDREN

Disasters can have a particularly strong impact on children. Children tend to thrive on a regular routine, and the disruption that follows a disaster can cause them to feel scared and angry and to manifest changes in behavior, such as increased violence or withdrawal from relationships. This survey asked respondents questions about children in their household to assess children's mental and emotional health as well as their physical health and their health care access to provide a window into how children in the New Orleans area are coping and developing in the wake of Katrina.

### Households with Children in the New Orleans Area

As shown in Table 1, children in the New Orleans area live in households of all types. In total, a little over a third (31%) of all households in both Orleans and Jefferson Parish reported having a child in the home. However, nearly two-thirds (64%) of all households with children in the New Orleans area lived in Jefferson Parish, reflecting the concentration of the area's population in that parish. A very small percentage of the households with children in the area were located in St. Bernard and Plaquemines Parishes.

**Table 1. Profile of Households with Children**

	<b>Distribution of Households with Children, by Category</b> <i>(Percentages in Columns)</i>	<b>Percentage of Category Reporting a Child in the Household</b> <i>(Percentages in Rows)</i>
<b>Total reporting a child under 19 in Household</b>	Total Unweighted N = 494	31%
<b>Parish</b>		
Orleans	32%	31%
Jefferson	64%	31%
Plaquemines & St. Bernard	4%	†
<b>Race/Ethnicity of Respondent</b>		
White, non-Hispanic	49%	26%
African American, non-Hispanic	37%	38% <sup>a</sup>
Hispanic or Latino	9%	36%
Other	4%	†
<b>Economic Status of Household</b>		
Economically disadvantaged	50%	43%
Not economically disadvantaged	49%	27% <sup>b</sup>
Undetermined	2%	†
<b>Education of Respondent</b>		
High School degree or less	41%	30%
Some College <sup>1</sup>	28%	31%
College graduate or higher	29%	34%

<sup>1</sup> Some College includes respondents attending business, technical, or vocational school after high school

<sup>a</sup> Statistically significant difference between white, non-Hispanic and African American, non-Hispanic at  $p < 0.05$ .

<sup>b</sup> Statistically significant difference between Economically Disadvantaged and Not Economically Disadvantaged at  $p < 0.05$ .

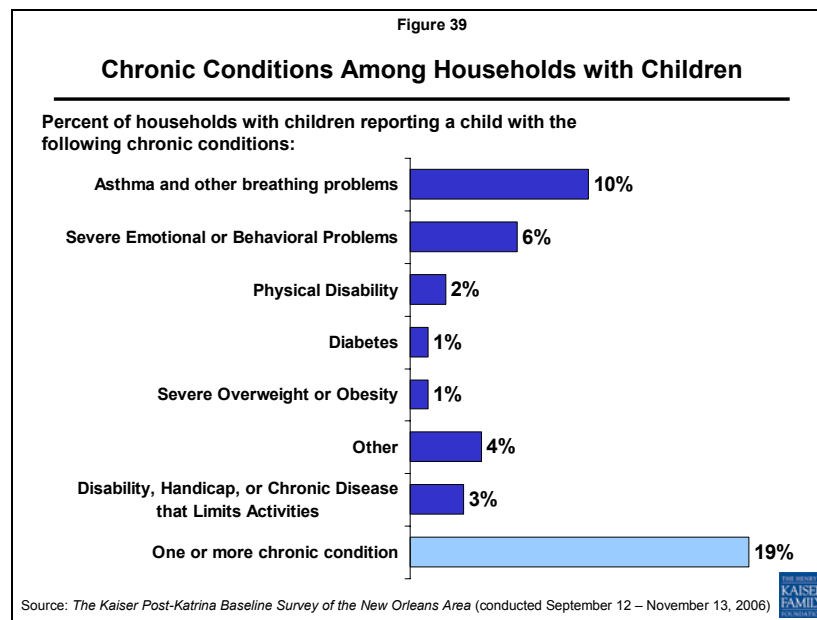
NOTE: † denotes that the number of interviews for this subgroup is too small to report results separately. Totals may not equal 100% due to rounding. Don't Know/Refused responses not shown.

In the Greater New Orleans area, half (49%) of households with children surveyed had a white respondent, but significant percentages were African American and Hispanic. Though reports tend to describe the Hispanic population living in the area after the storm as adult male workers, in fact many have families—36% of households with a Hispanic respondent said a child was living in the home.

Despite the challenges of living in the area and raising a family after the storm, families with limited resources continue to call New Orleans home. Half of the households with children in the Greater New Orleans area are economically disadvantaged. The likelihood of having a child in the home was higher at lower income levels. About a quarter of non-economically disadvantaged households had children but more than four in ten economically disadvantaged households had children living in them, putting further stress on limited family budgets.

### Health needs of children

One in five households with children (19%) reported that a child in the home had a chronic disease or disability, which equates to 6% of all households in the Greater New Orleans area. Respondents most commonly identified asthma and other breathing problems as a chronic condition affecting a child in the household (10% of households with children reported at least one child with this type of problem).



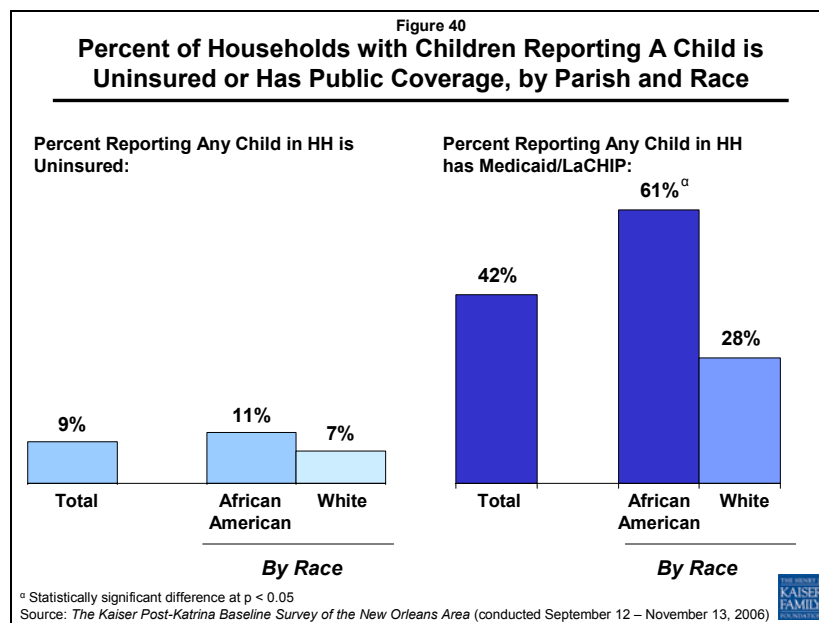
Along with concerns about children's physical health, particular alarm has been raised about children's emotional and mental health in the wake of Katrina. Several reports have focused on the mental well-being of children after the disaster, especially those living in large trailer parks for extended periods of time.<sup>23</sup> Our survey found that severe emotional or behavioral problems were the second most common chronic condition respondents identified affecting a child in their household, with 6% reporting that a child in the household had ever been diagnosed with such problems.

<sup>23</sup> D. Abramson et al., "The Recovery Divide: Poverty and the Widening Gap Among Mississippi Children and Families Affected by Hurricane Katrina," February 2007; and D. Abramson and R. Garfield, "On the Edge: Children and Families Displaced by Hurricanes Katrina and Rita Face a Looming Medical and Mental Health Crisis," April 2006, National Center for Disaster Preparedness and Columbia University, available at <http://www.childrenshealthfund.org/whatwedo/operation-assist/publications.php>

In addition, our survey found that a small but critical percentage of children were suffering from symptoms of emotional turmoil after the storm. Survey interviewers asked parents (a subset of respondents) to randomly select one child in the household and indicate whether he or she exhibited any of the emotional and behavioral health symptoms queried. In total, one in twelve households with children in the area reported a child with borderline (3%) or abnormal (5%) emotional behaviors, such as being nervous or clingy, downhearted, or easily scared.<sup>24,25</sup> A slightly higher proportion of economically disadvantaged households with children reported that a child had borderline or abnormal emotional symptoms (11% compared to 6% of non-economically disadvantaged households). Children in these households are likely to be facing multiple stressors in their lives. At the same time, their families are less likely to have the resources to help their children cope with mental health issues.

### Children's health coverage

Health coverage for children improves access to important preventive services and medical treatments for children, which in turn helps to keep them healthy and better able to participate fully in school and other activities. Uninsured children are more likely to have an unmet medical need, lack a usual source of care, and delay medical care due to cost.<sup>26</sup> In the four-parish area, 9% of households reported a child lacked health insurance and most notably, the percentage was comparable for both African American and white households with children.



Before the Katrina disaster, Louisiana had taken steps to reduce the number of uninsured children in the state by increasing eligibility for public coverage through Medicaid and LaCHIP and conducting broader outreach for the programs. As a result, the number of uninsured children in the state had decreased and enrollment in public programs had increased.

<sup>24</sup> Summary measure created using validated scale. Reference: R. Goodman., "Psychometric Properties of the Strengths and Difficulties Questionnaire," *J. Am. Acad. Child Adolesc. Psychiatry*, Vol. 40, 2001.

<sup>25</sup> Since these items were only asked when the survey respondent was the parent of a child in the household, this may be an underestimate of the total share of households in the area who have a child with this type of problem.

<sup>26</sup> *Summary of Health Statistics for U.S. Children: National Health Interview Survey, 2005*. National Center for Health Statistics, CDC.

After the storm, the percentage of children enrolled in public coverage highlights the important role Medicaid and LaCHIP play in providing coverage to children in the Greater New Orleans area. The survey found that nearly half (42%) of the households with children in the New Orleans area relied on Medicaid and LaCHIP for health coverage for a child in their home.

Though African American and white households with children reported an uninsured child in the home at comparable rates, almost twice as many African American households with children as white households have a child on Medicaid or LaCHIP (61% vs. 28%), emphasizing the importance of these programs in reducing health disparities and giving children a healthy start in life. Coverage for children through LaCHIP has clearly contributed to reducing some of the racial differences in coverage for children that were previously noted for adults.

### **Concerns about children's access to health care**

Access to preventive and routine care is important to maintain the health of children. Overall, about two thirds (64%) of households with children reported that a child received a medical check-up, immunization, or other routine health care in the past six months.

Adults in 6% of the households with children in the area said the health needs of the children in their home were not being satisfied. This is especially concerning in the case of households with a chronically ill child, for whom consistent management of their conditions through medical care is particularly important to maintain quality of life and prevent further deterioration in health status.

The survey also asked whether any child in the household had postponed or did not receive medical care. Among all households with children, 10% said that a child had delayed or not gotten care when they needed it. This rate was slightly higher in Orleans Parish than Jefferson Parish (15% vs. 8%). This is most likely due to the greater availability of medical resources in Jefferson Parish than Orleans Parish after the storm.

### ***Summary for Households with Children***

Providing children with health coverage and access to care, especially preventive services, is an important component of the health care system. Although few problems were reported for most children, some children face the additional challenges presented by a chronic disease or disability. In the wake of the Katrina disaster, a concerning share of households in the area report children living there are suffering from symptoms of emotional and behavioral turmoil.

Medicaid and LaCHIP are a particularly significant source of health coverage for some of the area's most vulnerable children, with more than four in ten households with children reporting a child covered by Medicaid or LaCHIP. As children cope with their physical and mental health conditions after the disaster, access to medical care is important in promoting stability and health. Though the majority of households report that children have received routine health care, timely access to health services could be improved, particularly for vulnerable children most in need of medical care.

## LOOKING FORWARD

The population that remained in New Orleans or returned to the city after the devastation caused by Katrina and the failed levees continues to contend with numerous physical and mental health challenges, as well as significant problems with health coverage and access. Some groups, such as the elderly, economically disadvantaged, African Americans, the uninsured, and those with Medicaid coverage, are more burdened by poor physical and mental health status than others living in the area.

At the same time, these groups are facing greater hurdles in accessing the health care they need in the limited health system in New Orleans over a year after Katrina. African Americans were significantly more likely than whites to report being in fair or poor health, and their access to health care was significantly lower—they were more likely to be uninsured and to have no usual source of care other than an ER and less likely to have sought medical care in the past 6 months. Particularly concerning are the findings related to health care access for all those in fair or poor health or with chronic conditions, for whom appropriate and timely access to medical care is necessary to manage their health problems well. Broadened access to primary and preventive care and reduced financial barriers to health services could help to manage appropriately the health conditions facing these groups.

The findings in this report also show that, as the discussion about rebuilding Charity Hospital continues, those who formerly relied on the hospital reported having significant health problems and obvious difficulty accessing care. Though these findings do not prescribe a solution, they demonstrate the extent of the health care needs of this population in Charity Hospital's absence.

As Louisiana considers ways to expand health coverage to its population, it is important for the policy community to understand who the uninsured are and how they are using the health system. The Greater New Orleans area has higher rates of uninsured adults than the national average, and in Orleans Parish over a quarter of adults over age 18 are uninsured. The uninsured rate for children appears to be much lower, due in part to the strong safety net role Medicaid and LaCHIP play for children in Louisiana. The state recently took steps to broaden public coverage for more low-income families, with the intended effect of further reducing the number of uninsured people both within the Greater New Orleans area and across the state.

The findings in this report depict health status and access challenges for the people of the New Orleans area, and serve as a baseline that can be used to assess progress in improving health access and outcomes in the region. The Foundation plans to track progress and the experiences of the population over a multi-year period to shed light on whether progress is being made and, if so, in what areas of the health arena; if not, where challenges still remain. Through these efforts, the Foundation hopes to give voice to the residents who have returned, exploring more broadly their experiences living in the New Orleans area, how their lives have changed, the challenges they are facing, and the progress being made since the storm.



## APPENDIX A: THE HEALTH CARE SYSTEM IN THE GREATER NEW ORLEANS AREA BEFORE AND AFTER HURRICANE KATRINA<sup>1</sup>

### Health Care System before Hurricane Katrina

Prior to the storm, over 20% of individuals in each of the Greater New Orleans parishes lacked health insurance<sup>2</sup>. The people of Greater New Orleans, particularly the low-income uninsured (the majority of whom came from working families), faced many challenges in accessing necessary healthcare services (both physical and behavioral). Partly due to deeply rooted cultural norms, the low-income uninsured tended to use emergency departments as a regular source of ambulatory care. Nearly 90% of the healthcare delivered to the uninsured in Region 1 was delivered by the state-run public hospital, Medical Center of Louisiana at New Orleans (MCLNO), which consisted of two hospitals on the MCLNO campus, Charity and University Hospitals.<sup>3</sup> The paucity of affordable, community-based alternatives to MCLNO for primary care became particularly evident in 2003 when MCLNO closed its “Walk-In Clinic” which provided for over 50,000 annual ambulatory visits.<sup>4</sup>

Though Louisiana reported relatively low levels of poor mental health status compared to other states, the population still had mental health needs requiring medical attention. Mental health services were inadequately resourced and were concentrated in inpatient settings prior to Katrina—the region had 578 mental health beds and an estimated 200 psychiatrists.<sup>5,6</sup> For the indigent and uninsured, Charity Hospital was the region’s principle provider of mental health services, with nearly 100 mental health beds and a 40-bed crisis intervention unit.<sup>7</sup>

For people with the means to pay for care, the Region was not lacking in healthcare capacity, with 16 hospitals serving the region. These hospitals provided an inpatient capacity of four beds per 1000 people, exceeding the national average by 1.2 beds/ 1000. There were also a host of outpatient facilities in the region.<sup>8</sup> The majority of functional hospitals and clinics were concentrated in Orleans and Jefferson Parish, with only one hospital operating out of St. Bernard Parish and no major hospitals in Plaquemines Parish.

### Impact of Hurricane Katrina on the Health System

When Hurricane Katrina and the resulting flood hit the New Orleans area, all healthcare facilities in New Orleans were closed, and many were irreparably damaged. Most notable among the irreparably damaged facilities was Charity Hospital, the primary source of care for the low-income uninsured. In the weeks and

<sup>1</sup> This background was prepared by Clayton Williams, Susan Bergson, and Gregory Stone of the Louisiana Public Health Institute. This work was commissioned by the Henry J. Kaiser Family Foundation.

<sup>2</sup> Louisiana Department of Health and Hospitals (2005) *Louisiana’s Uninsured Population; A Report from the 2005 Louisiana Health Insurance Survey*. Accessed July 6, 2007: <http://www.dhh.louisiana.gov/offices/publications/pubs-3111/Louisianas%20Uninsured%20population%20survey%20report%202005.pdf>

<sup>3</sup> Ruduwitz, R; Rowland, D; Shartzter, A. “Health Care in New Orleans Before and After Hurricane Katrina” *Health Affairs* 25 (2006): w393-w406.

<sup>4</sup> Louisiana Public Health Institute analysis, 2003

<sup>5</sup> Moran, Kate. “Nagin demands state provide mental health services.” *The Times-Picayune*. May 14, 2007. Accessed 21, June 2007: [http://blog.nola.com/times-picayune/2007/05/nagin\\_demands\\_mental\\_health\\_se.html](http://blog.nola.com/times-picayune/2007/05/nagin_demands_mental_health_se.html)

<sup>6</sup> National Public Radio. “New Orleans’ Mental Health Crisis.” Interview with Dr. Kathleen Crapanzano, Director of Louisiana Office of Mental Health. Audio transcript. June 11, 2007. Accessed June 21, 2007: <http://www.npr.org/templates/story/story.php?storyId=10932957>

<sup>7</sup> Moran, Kate. “Nagin demands state provide mental health services.” *The Times-Picayune*. May 14, 2007. Accessed 21, June 2007: [http://blog.nola.com/times-picayune/2007/05/nagin\\_demands\\_mental\\_health\\_se.html](http://blog.nola.com/times-picayune/2007/05/nagin_demands_mental_health_se.html)

<sup>8</sup> Kaiser Family Foundation, “Louisiana: Hospital Beds per 1,000 Population, 2004,” <http://www.statehealthfacts.org/cgi-bin/healthfacts.cgi?action=profile&area=Louisiana&category=Providers+%26+Service+Use&subcategory=Hospitals&topic=Beds> (accessed 18 June 2007)



months that ensued, the area's community hospitals, several community safety net clinics (some of which were part of the landscape prior to Katrina as well as some that had been established in direct response to the urgent needs post-Katrina), and doctors in private practice began to fill the void.

Consistent with the displacement of the general population, the majority of physicians and other healthcare professionals in the region were uprooted, either temporarily or permanently. A University of North Carolina at Chapel Hill study conducted immediately after Katrina estimated that almost 5,000 physicians engaged in patient care were displaced due to the storm.<sup>9</sup> A July 2006 report by Blue Cross Blue Shield of Louisiana showed a 51 percent reduction in the number of physicians filing claims in the state, with 96 percent of this reduction occurring in Orleans Parish.<sup>10</sup>

By the time of the KFF survey in the fall of 2006, MCLNO's Charity and University Hospitals remained closed, with former hospital staff providing limited urgent care services out of a converted Lord and Taylor department store in downtown New Orleans and a trauma center in rented hospital space in Jefferson Parish. At the Lord and Taylor clinic, the wait for patients with non-emergent conditions sometimes exceeded 10 hours.<sup>11</sup> With the monolithic Charity Hospital building out of service and a severely reduced medical workforce, scarcely 1,971, or 48 percent, of the 4,083 pre-storm hospital beds were staffed within the region (Table A1).<sup>12</sup> Consequently, for specialty and inpatient services, the uninsured were most often forced to travel to public hospitals located in Houma, Baton Rouge, or further out of the Region or state.

A related and critical situation up to and during the time the survey was a severe lack of inpatient mental health services. With MCLNO's 120 pre-storm inpatient mental health and medical detoxification beds not operational, a mere 190 of the region's 462 pre-storm mental health beds were in service.<sup>13</sup> This led to local emergency departments clogged with acutely mentally ill individuals waiting for days on end for availability of inpatient beds or transfer to other areas of the state for treatment.

By the fall of 2006, 22 primary care community clinics of varying size and scope in Region 1 were established to provide healthcare to people regardless of their ability to pay (Figure A1 and Table A2).<sup>14</sup> Most of these facilities were a part of the Regional Ambulatory Planning Committee of the Partnership for Access to Healthcare (PATH), which became a vehicle to coordinate services and disburse supplemental Social Services Block Grant dollars to support the recovery and expansion of neighborhood-level primary care services in the region. Despite this extraordinary effort to recover services for the low-income uninsured, the Louisiana Public Health Institute estimated a gap of approximately 30 to 35 full-time primary care doctors that would have been needed to meet the needs of the Region's uninsured at that time.

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<sup>9</sup> Williamson, David. "Study shows Hurricane Katrina affected 20,000 physicians, up to 6,000 may have been displaced." UNC News Service. September 26, 2005. Accessed June 21, 2007: <http://www.unc.edu/news/archives/sep05/ricketts092605.htm>.

<sup>10</sup> Louisiana Health Care Redesign Collaborative, "Region 1 Health Care Profile: A Review of Health Care Workforce and Services in Orleans, Jefferson, Plaquemines and St. Bernard Parishes Post-Hurricane Katrina." Presented for the Louisiana Health Care Redesign Collaborative 11/21/2006.

<sup>11</sup> Oberman, Mira. "Landmark New Orleans Hospital Operates in Department Store." Terra Daily. August 23, 2006. Accessed on June 21, 2007: [http://www.terradaily.com/reports/Landmark\\_New\\_Orleans\\_Hospital\\_Operates\\_In\\_Department\\_Store\\_999.html](http://www.terradaily.com/reports/Landmark_New_Orleans_Hospital_Operates_In_Department_Store_999.html)

<sup>12</sup> Ruduwitz, R; Rowland, D; Shartzter, A. "Health Care in New Orleans Before and After Hurricane Katrina" *Health Affairs* 25 (2006): w393-w406.

<sup>13</sup> Medical New Today, "New Orleans Mental Health System Has Fewer Psychiatrists, Hospital Beds Since Hurricane Katrina," September 8, 2006. Accessed June 21, 2007, <http://www.medicalnewstoday.com/medicalnews.php?newsid=51341>

<sup>14</sup> Louisiana Public Health Institute, "NOLA Dashboard," September 2006, <http://www.noladashboard.org> (accessed archive June 18, 2007).

**Figure A1: Known primary care clinics in LA DHH Region 1 providing discounted services and open hospitals at the time of the KFF survey**

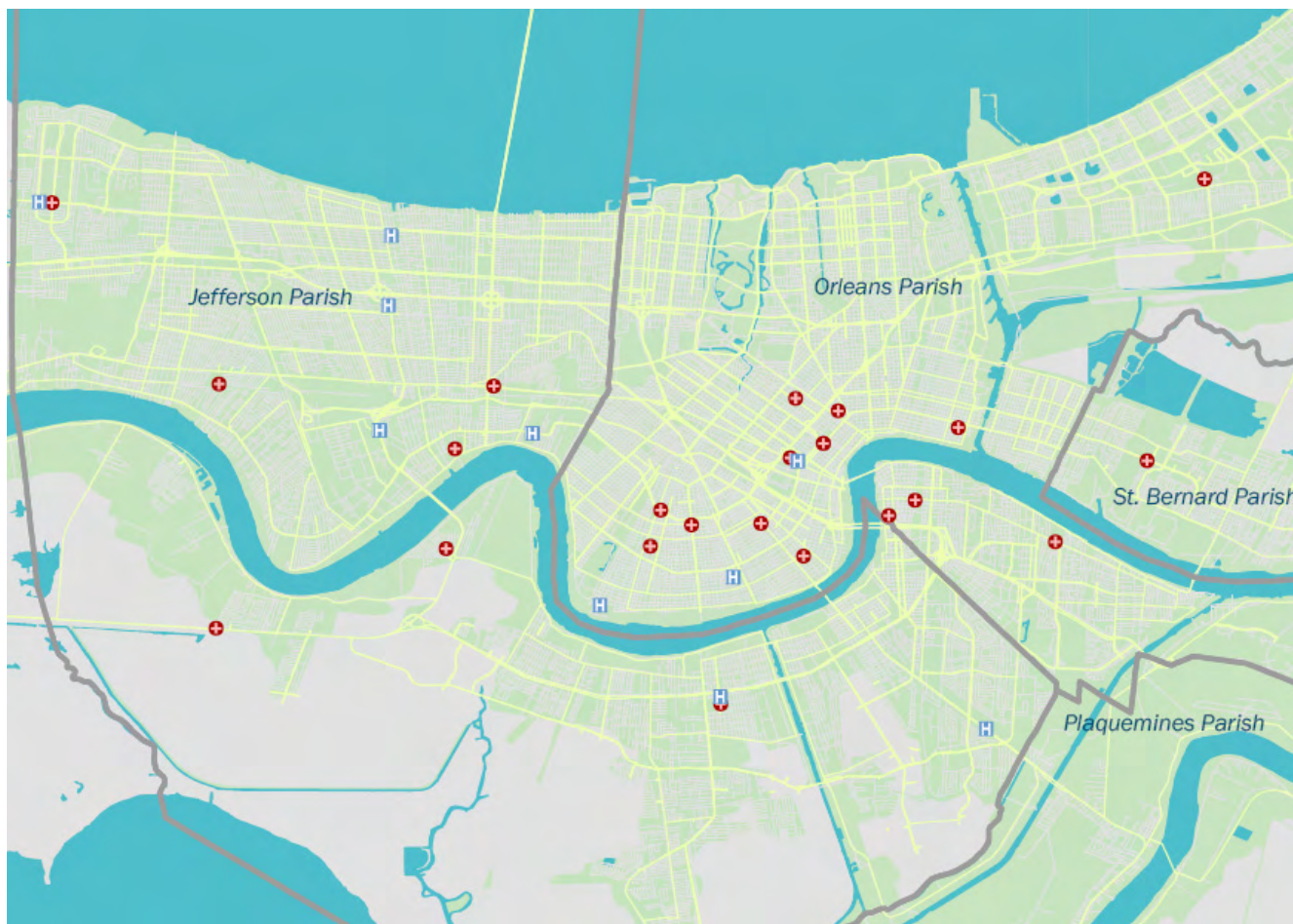


Table A1. Hospitals Operating in Region 1 as of Fall 2006

		Emergency Room	Adult Medicine	Intensive Care	Obstetrics	Pediatrics	Psychiatry	Surgery	Specialty Services	# Beds
<b>Orleans</b>	Tulane University					Δ			a, b, c, d, j, k, l	121
	Touro Hospital	Δ	Δ	Δ	Δ	Δ		Δ	a, b, c, h, l, j, k, l	265
	Children's Hospital	Δ				Δ		Δ	a, b, c, d, e, f, g, i, j, k, l	143
<b>Jefferson</b>	Kenner Regional Medical Center (Ochsner Kenner)	Δ	Δ	Δ				Δ	b, h, i, k	170
	East Jefferson Medical Center		Δ	Δ	Δ		Δ	Δ	a, b, c, d, e, f, l, j, k, l	444
	Tulane-Lakeside	Δ	Δ	Δ	Δ			Δ	c, d, g, k	75
	MCLNO Elmwood Trauma								a, b, c, d, e, k, l	37
	Ochsner Medical Center	Δ	Δ	Δ	Δ	Δ		Δ	a, b, c, i, j, k, l	442
	West Jefferson Medical Center	Δ	Δ	Δ	Δ	Δ		Δ	a, b, c, d, e, f, h, i, j, k, l	352
	Meadowcrest (Ochsner Westbank)	Δ	Δ	Δ	Δ	Δ		Δ	b, c, e, i, k, l	199
Source: Louisiana Public Health Institute, "NOLA Dashboard" November 29, 2006, <a href="http://www.noladashboard.org">http://www.noladashboard.org</a> (Archive accessed July 6, 2007)										

Key to Specialty Services	
a. Neurosurgery	g. Sexual Assault
b. Orthopedics	h. Hyperbarics
c. Ophthalmology	i. Cardiac Cath
d. Hand Surgery	j. Cardiothoracic Surgery
e. Oral Surgery	k. C.T.
f. Dental Surgery	l. MRI

Table A2. Clinics Operating in Region 1 as of Fall 2006

Parish	Name	Services Offered
Orleans	Operation Blessing	Primary Care pediatric and adult
	Hutchinson Clinic	Adult primary care
	Ida Hymel Health Clinic	Primary care adult and pediatric. HIV testing.
	St. Thomas Community Health Center	Primary care, mammography, gynecological services and colposcopy
	Daughters of Charity and St. Cecilia's	Primary Care pediatric and adult. No pre-natal care
	Tulane Clinic Covenant House – Adult	Immunizations, urgent care, primary care, reproductive health and mental health services
	Tulane Drop-In Clinic	Well-baby exams, immunizations, urgent medical care, reproductive health care, STD screening and treatment
	Common Ground Health Clinic	Adult primary care with pediatric and maternal support. HIV testing.
	New Orleans Science & Math High	School Based Health Center
	Eleanor McMain High	School Based Health Center
	McDonogh 35 High	School Based Health Center
	Healthcare for the Homeless/Edna Pilsbury Clinic	Primary Care pediatric and adult.
	Algiers Community Health Clinic	Primary Care pediatric and adult.
Jefferson	Riverdale High School	School Based Health Center
	Joshua Butler Elementary School	School Based Health Center
	Bunch Academy for High School Preparation	School Based Health Center
	Jefferson Community Health Center- Avondale	Primary Care pediatric and adult
	Saint Charles Community Health Center- Kenner	Primary Care pediatric and adult
	Jefferson Community Health Center- Marrero	Primary Care pediatric and adult
Plaquemines	Plaquemines Medical Center	Primary Care pediatric and adult
St. Bernard	Saint Bernard Health Clinic	Primary Care, laboratory, radiology, EKG and ultrasound
Louisiana Public Health Institute, "NOLA Dashboard" September 13, 2006, <a href="http://www.noladashboard.org">http://www.noladashboard.org</a> (Archive accessed July 6, 2007)		



**APPENDIX B: TABLES**

Table B1:	Population Estimates and Selected Characteristics for Analysis as a Share of the Adult Population of the New Orleans Area
Table B2:	Snapshot of Physical and Mental Health Status of Adults, by Selected Characteristics
Table B3:	Chronic Conditions Among Adults, by Selected Characteristics
Table B4:	Impact of Hurricane Katrina on the Health Status and Quality of Life of Adults in the New Orleans Area, by Selected Characteristics
Table B5:	Current Health Coverage of Adults, by Selected Characteristics
Table B6:	Current Portrait of Uninsured Adults
Table B7:	Health Utilization of Adults in Previous 6 Months, by Selected Characteristics
Table B8:	Current Usual Source of Care and Access Problems among Adults, by Selected Characteristics
Table B9:	Impact of Hurricane Katrina on the Health Coverage and Access of Adults in the New Orleans Area, by Selected Characteristics
Table B10:	Likely Source of Hospital Care Pre- and Post-Katrina, by Economic Status, Race/Ethnicity, and Health Coverage

	<b>Greater New Orleans</b>	<b>Orleans Parish</b>	<b>Jefferson Parish</b>
<b>Estimated Total Population</b>	711,348	220,831	455,941
<b>Estimated Total Adult Population (ages 18+)</b>	553,275	167,844	354,800
	<b>% of Adults</b>	<b>% of Adults</b>	<b>% of Adults</b>
<b>Parish</b>			
Orleans	30%	100%	---
Jefferson	64%	---	100%
Plaquemines and St. Bernard	6%	---	---
<b>Age</b>			
18-29	16%	18%	17%
30-49	36%	39%	36%
50-64	30%	27%	29%
65+	18%	17%	18%
<b>Race/Ethnicity</b>			
White, non-Hispanic	56%	39%	62%
African American, non-Hispanic	30%	53%	19%
Hispanic	10%	5%	13%
Other	4%	2%	5%
<b>Economic Status</b>			
Economically Disadvantaged	35%	43%	33%
Not Economically Disadvantaged	62%	57%	65%
<b>Health Status</b>			
Fair/Poor Health	13%	15%	11%
Excellent/Very Good/Good Health	88%	85%	89%
Chronic Conditions	41%	42%	40%
No Chronic Conditions	56%	57%	56%
<b>Health Coverage</b>			
Uninsured	20%	26%	18%
Private Coverage	50%	48%	52%
Medicare	20%	16%	20%
Medicaid*	7%	8%	7%
<b>Former Usual Source of Care</b>			
Former Charity User	9%	16%	6%
Other ER/Hospital/Clinic/Health Center OR No USOC	36%	31%	37%
Private Doctor's Office/Other	51%	50%	52%
<b>Quality of Life Decreased</b>			
Quality of Life Decreased	39%	49%	34%
Quality of Life did not Decrease	60%	50%	65%

NOTE: Don't Know/Refused responses not shown. Totals may not add to 100% due to rounding.

\* Does not include other sources of public coverage such as the VA, TriCARE, etc.

	Unweighted N	<i>Physical Health</i>	<i>Mental Health</i>		
		Self-Reported Fair/Poor Health Status	Self-Reported Fair/Poor Mental Health Status	Report Signs of Depression	Report Signs of PTSD
<b>Total</b>	1504	13%	8%	6%	5%
<b>By Parish</b>					
Orleans	901	15%	10%	6%	5%
Jefferson	569	11%	7%	5%	4%
<b>By Race</b>					
White, non-Hispanic	753	11%	7%	6%	6%
African American, non-Hispanic	597	19%	12%	6%	4%
<b>By Economic Status</b>					
Economically Disadvantaged	585	19%	15%	9%	7%
Not Economically Disadvantaged	895	9%	4%	4%	4%
<b>By Age</b>					
Nonelderly (18-64)	1208	10%	9%	6%	5%
18-29	229	3%	6%	6%	7%
30-49	558	8%	8%	5%	5%
50-64	421	16%	10%	9%	5%
Elderly (65+)	293	22%	6%	4%	2%
<b>By Health Coverage</b>					
Uninsured	309	15%	14%	12%	5%
Insured (any)	1179	12%	6%	4%	4%
Private Coverage	721	6%	5%	4%	4%
Medicare	229	23%	6%	4%	3%
Medicaid	127	21%	16%	7%	6%
<b>By Previous Usual Source of Care</b>					
Previous Charity User	169	23%	23%	14%	9%
Other ER/Hospital/Clinic/Health Center OR No USOC	523	10%	7%	5%	4%
Private Doctor's Office/Other	781	13%	7%	5%	5%
<b>By Quality of Life Disruption</b>					
Quality of Life Decreased	605	18%	11%	11%	8%
Quality of Life Did Not Decrease	892	9%	5%	3%	3%
Someone Close to Respondent Died	230	10%	15%	12%	8%
No One Close to Respondent Died	1244	12%	7%	5%	4%



		Percent who say a doctor has ever diagnosed them with:										
		Any Chronic Condition or Disability	Heart Disease	Hypertension/ High Blood Pressure	Diabetes	Asthma/ Other Breathing Problem	Physical Disability	Cancer	Severe Overweight/ Obesity	Serious Mental Illness	Other Chronic Condition	
<b>Total</b>		Unweighted N	1504	8%	24%	11%	9%	7%	3%	5%	4%	5%
<b>By Parish</b>												
	Orleans	901	42%	8%	27%	13%	9%	7%	5%	6%	5%	3%
	Jefferson	569	40%	9%	23%	9%	9%	7%	2%	5%	4%	6%
<b>By Race/Ethnicity</b>												
	White, non-Hispanic	753	42%	10%	21%	8%	11%	7%	3%	5%	5%	6%
	African American, non-Hispanic	597	44%	8%	31%	17%	11%	10%	3%	7%	5%	4%
<b>By Economic Status</b>												
	Economically Disadvantaged	585	42%	10%	25%	14%	11%	12%	1%	7%	7%	8%
	Not Economically Disadvantaged	895	41%	7%	24%	9%	8%	4%	3%	4%	3%	3%
<b>By Age</b>												
	Nonelderly (18-64)	1208	35%	5%	20%	9%	8%	5%	1%	5%	4%	4%
	18-29	229	12%	^	4%	1%	3%	1%	^	1%	5%	2%
	30-49	558	29%	3%	14%	5%	9%	5%	1%	5%	4%	3%
	50-64	421	56%	10%	36%	18%	10%	7%	3%	7%	5%	7%
	Elderly (65+)	293	66%	21%	41%	18%	12%	13%	9%	5%	3%	8%
<b>By Health Coverage</b>												
	Uninsured	309	29%	2%	20%	7%	6%	5%	----	5%	5%	3%
	Insured (any)	1179	45%	10%	26%	12%	11%	7%	3%	5%	4%	6%
	Private Coverage	721	35%	6%	20%	6%	9%	2%	2%	4%	3%	3%
	Medicare	229	70%	19%	41%	24%	13%	17%	8%	6%	3%	10%
	Medicaid	127	46%	13%	28%	17%	19%	16%	1%	11%	13%	12%
<b>By Previous Usual Source of Care</b>												
	Previous Charity User	169	25%	2%	12%	7%	8%	5%	1%	1%	5%	3%
	Private Doctor's Office/Other Place	781	49%	11%	31%	11%	12%	8%	3%	6%	4%	6%
	Other ER/Hospital/Clinic/Health Center OR No USOC	523	35%	5%	18%	12%	7%	6%	2%	6%	4%	4%
<b>By Quality of Life Disruption</b>												
	Quality of Life Decreased	605	46%	9%	31%	11%	11%	9%	3%	5%	6%	6%
	Quality of Life Did Not Decrease	892	38%	7%	20%	10%	8%	5%	2%	5%	3%	4%

NOTE: ^ denotes a value of less than 0.5 percent. ---- denotes no respondents selected this answer as a response.

	Unweighted N	Percent Experiencing Changes in Health Status				Percent Experiencing Changes in Quality of Life			
		Health got worse	New/Worse Health Condition	New Mental Health Rx Since Katrina	Mental Health Got Worse	Quality of Life Decreased	Living at Different Address	Someone Close Died	Some/None of Social Network Still Intact
<b>Total</b>	1504	12%	11%	4%	15%	39%	20%	14%	26%
<b>By Parish</b>									
Orleans	901	14%	11%	4%	21%	49%	25%	21%	38%
Jefferson	569	10%	10%	3%	12%	34%	18%	10%	21%
<b>By Race/Ethnicity</b>									
White, non-Hispanic	753	10%	11%	4%	15%	35%	13%	13%	21%
African American, non-Hispanic	597	16%	12%	4%	18%	47%	26%	19%	41%
<b>By Economic Status</b>									
Economically Disadvantaged	585	16%	14%	5%	19%	46%	27%	16%	33%
Not Economically Disadvantaged	895	10%	9%	3%	13%	35%	16%	12%	23%
<b>By Age</b>									
18-29	229	10%	6%	3%	13%	36%	40%	11%	21%
30-49	558	10%	10%	5%	16%	39%	20%	13%	27%
50-64	421	16%	12%	3%	16%	43%	14%	13%	30%
65+	293	10%	13%	1%	12%	35%	10%	17%	25%
<b>By Health Coverage</b>									
Uninsured	309	17%	8%	2%	16%	42%	33%	16%	31%
Insured (any)	1179	11%	12%	4%	14%	38%	16%	13%	25%
Private Coverage	721	10%	9%	4%	15%	38%	16%	12%	27%
Medicare	299	14%	15%	2%	11%	35%	11%	16%	24%
Medicaid	127	8%	19%	8%	17%	53%	34%	12%	21%
<b>By Health Status</b>									
Fair/Poor	212	31%	30%	10%	28%	57%	19%	11%	34%
Excellent/Very Good/Good	1290	9%	8%	3%	13%	37%	20%	14%	26%
Any Chronic Condition/Disability	629	16%	27%	5%	19%	43%	16%	16%	28%
No Chronic Condition/Disability	845	8%	N/A	2%	12%	37%	21%	12%	25%
<b>By Previous Usual Source of Care</b>									
Previous Charity User	169	22%	5%	2%	23%	60%	27%	18%	28%
Private Doctor's Office/Other	781	12%	13%	5%	17%	43%	14%	15%	25%
Other ER/Hospital/Clinic/Health Center OR No USOC	523	10%	10%	2%	10%	28%	23%	11%	26%
<b>By Quality of Life Disruption</b>									
Quality of Life Decreased	605	20%	16%	6%	24%	N/A	19%	18%	32%
Quality of Life Did Not Decrease	892	7%	8%	2%	9%	N/A	20%	11%	22%
Someone Close Died	230	18%	18%	7%	33%	53%	24%	N/A	39%
No One Close Died	1244	10%	9%	3%	12%	36%	19%	N/A	24%

**Table B5. Current Health Coverage of Adults, by Selected Characteristics**  
(Percentages in Rows)

	Unweighted N	Uninsured	Private Coverage			Medicare	Medicaid/ Other Public		
			Total	Employer-Sponsored	Individual		Total	Medicaid	Other Public
<b>Total</b>	1504	20%	50%	40%	10%	20%	8%	7%	1%
<b>By Parish</b>									
Orleans	901	26%	48%	37%	11%	16%	10%	8%	2%
Jefferson	569	18%	52%	42%	10%	20%	8%	7%	1%
<b>By Race/Ethnicity</b>									
White, non-Hispanic	753	12%	61%	48%	13%	21%	5%	4%	1%
African American, non-Hispanic	597	24%	38%	32%	6%	21%	15%	13%	2%
<b>By Economic Status and Race</b>									
Economically Disadvantaged	585	31%	29%	20%	9%	18%	21%	20%	1%
Not Economically Disadvantaged	895	15%	63%	52%	11%	20%	1%	----	1%
Econ. Disadvantaged & African American	342	32%	27%	22%	5%	14%	26%	24%	2%
Econ. Disadvantaged & White	185	20%	36%	24%	12%	26%	18%	18%	^
Not Econ. Disadvantaged & African American	242	16%	55%	48%	7%	27%	2%	----	2%
Not Econ. Disadvantaged & White	560	9%	70%	57%	13%	20%	1%	----	1%
<b>By Age</b>									
Nonelderly (18-64)	1208	25%	58%	47%	11%	5%	9%	8%	1%
18-29	229	41%	40%	26%	14%	1%	17%	16%	1%
30-49	558	20%	69%	59%	10%	1%	8%	7%	1%
50-64	421	22%	55%	44%	11%	13%	7%	6%	1%
Elderly (65+)	293	1%	13%	7%	6%	83%	3%	2%	1%
<b>By Health Status</b>									
Fair/Poor	212	25%	24%	19%	5%	36%	12%	12%	^
Excellent/Very Good/Good	1290	20%	54%	43%	11%	17%	7%	6%	1%
Any Chronic Condition/Disability	629	15%	42%	35%	7%	33%	9%	8%	1%
No Chronic Condition/Disability	845	24%	55%	43%	12%	10%	8%	7%	1%
<b>By Previous Usual Source of Care</b>									
Previous Charity User	169	56%	12%	4%	8%	7%	21%	21%	^
Other ER/Hospital/Clinic/Health Center OR No USOC	523	24%	43%	35%	8%	20%	11%	9%	2%
Private Doctor's Office or Some Other Place	781	8%	62%	50%	12%	23%	5%	4%	1%
<b>By Education</b>									
High School or Less	659	30%	32%	26%	6%	25%	12%	12%	^
Some College	385	20%	53%	40%	13%	18%	8%	6%	2%
College Degree or Higher	421	5%	80%	66%	14%	12%	2%	1%	1%

NOTE: ^ denotes a value of less than 0.5 percent. ---- denotes no respondents selected this answer as a response.

<b>Table B6. Current Portrait of Uninsured Adults</b> (Percentages in Columns)		
	<b>Total Uninsured in 4-Parish Area</b>	<b>Uninsured in Orleans Parish</b>
Unweighted N	309	209
<b>Total % Uninsured Adults</b>	20%	26%
<b>Total # Uninsured Adults</b>	113,211	42,971
<b>95% Confidence Interval</b>	88,101 to 138,320	34,792 to 51,151
<b>Gender</b>		
Male	45%	56%
Female	55%	44%
<b>By Race/Ethnicity</b>		
White, non-Hispanic	32%	19%
African American, non-Hispanic	36%	70%
Hispanic	26%	9%
Asian American	3%	2%
Other	2%	1%
<b>By Age</b>		
18-29	32%	30%
30-49	36%	37%
50-64	32%	32%
65+	1%	1%
<b>By Economic Status</b>		
Economically Disadvantaged	54%	62%
Not Economically Disadvantaged	46%	36%
<b>By Education</b>		
High School or Less	64%	68%
Some College	27%	21%
College or Higher	6%	9%
<b>By Health Status</b>		
Fair/Poor Health	15%	16%
Excellent/Very Good/Good Health	84%	84%

Note: Includes the over 65 population

	Unweighted N	Tried to seek medical care in past 6 months	1 or More ER Visits	Admitted Overnight to a Hospital	Visited Doctor's Office	Received Preventive Health Services	Received Mental Health Services	Currently Take Rx on a Daily Basis
<b>Total</b>	1504	44%	25%	18%	50%	38%	14%	43%
<b>By Parish</b>								
Orleans	901	46%	27%	21%	52%	45%	19%	40%
Jefferson	569	43%	24%	18%	51%	36%	13%	42%
<b>By Race/Ethnicity</b>								
White, non-Hispanic	753	50%	20%	17%	54%	43%	15%	47%
African American, non-Hispanic	597	41%	35%	23%	50%	34%	16%	41%
<b>By Economic Status</b>								
Economically Disadvantaged	585	43%	27%	18%	47%	31%	12%	38%
Not Economically Disadvantaged	895	45%	23%	18%	51%	43%	16%	46%
<b>By Age</b>								
Nonelderly (18-64)	1208	40%	24%	16%	46%	33%	14%	36%
18-29	229	27%	21%	12%	32%	27%	10%	9%
30-49	558	39%	23%	18%	44%	33%	14%	29%
50-64	421	48%	27%	16%	55%	37%	17%	60%
Elderly (65+)	293	62%	27%	26%	68%	61%	15%	74%
<b>By Health Coverage</b>								
Uninsured	309	26%	23%	13%	29%	14%	14%	25%
Insured (any)	1179	50%	25%	19%	55%	46%	15%	49%
Private Coverage	721	45%	20%	16%	50%	41%	14%	39%
Medicare	229	62%	34%	26%	70%	60%	17%	76%
Medicaid	127	48%	35%	23%	54%	39%	10%	44%
<b>By Health Status</b>								
Fair/Poor	212	73%	38%	22%	75%	60%	16%	78%
Excellent/Very Good/Good	1290	40%	23%	17%	46%	35%	14%	38%
Any Chronic Condition/Disability	629	66%	33%	22%	69%	56%	17%	79%
No Chronic Condition/Disability	845	29%	18%	15%	38%	26%	13%	19%
<b>By Previous USOC</b>								
Previous Charity User	169	26%	19%	15%	26%	19%	6%	18%
Other ER/Hospital/Clinic/Health Center OR No USOC	523	34%	29%	18%	41%	27%	14%	35%
Private Doctor's Office or Some Other Place	781	55%	22%	18%	62%	53%	17%	54%

**Table B8. Current Usual Source of Care and Access Problems among Adults, by Selected Characteristics**  
(Percentages in Rows)

	Unweighted N	Access and Usual Source of Care (USOC)						Access Problems and Medical Bills in Past 6 Months		
		Health needs not being met well	Somewhat or Very Difficult to Get to Medical Care	No USOC or USOC is ER	Doctor's Office	Hospital Clinic	Neighborhood Clinic	Did Not Get or Posptoned Getting Medical Care	Did Not Fill Rx, Skipped Doses, or Took Less than Prescribed Dose	Anyone in Household Had Problems Paying Medical Bills
<b>Total</b>	1504	10%	13%	27%	46%	17%	6%	8%	6%	8%
<b>By Parish</b>										
Orleans	901	11%	16%	34%	43%	14%	6%	9%	6%	9%
Jefferson	569	9%	10%	25%	48%	17%	5%	6%	6%	8%
<b>By Race/Ethnicity</b>										
White, non-Hispanic	753	8%	8%	20%	57%	17%	4%	7%	5%	8%
African American, non-Hispanic	597	12%	22%	37%	31%	19%	8%	10%	8%	11%
<b>By Economic Status</b>										
Economically Disadvantaged	585	15%	22%	37%	28%	20%	10%	6%	8%	14%
Not Economically Disadvantaged	895	7%	6%	21%	55%	15%	3%	8%	5%	6%
<b>By Age</b>										
Nonelderly (18-64)	1208	11%	13%	27%	43%	17%	7%	8%	6%	9%
18-29	229	10%	15%	40%	22%	16%	13%	4%	2%	6%
30-49	558	9%	14%	29%	47%	15%	4%	8%	4%	8%
50-64	421	13%	9%	19%	50%	20%	7%	10%	11%	13%
Elderly (65+)	293	7%	10%	24%	56%	17%	1%	5%	5%	5%
<b>By Health Coverage</b>										
Uninsured	309	27%	22%	54%	10%	12%	9%	8%	9%	17%
Insured (any)	1179	5%	10%	19%	55%	18%	5%	8%	5%	6%
Private Coverage	721	4%	8%	16%	60%	16%	5%	8%	5%	6%
Medicare	229	8%	12%	20%	55%	22%	1%	7%	5%	6%
Medicaid	127	6%	18%	35%	26%	25%	12%	6%	9%	11%
<b>By Health Status</b>										
Fair/Poor	212	24%	30%	26%	43%	19%	6%	19%	18%	23%
Excellent/Very Good/Good	1290	8%	10%	26%	46%	17%	6%	6%	4%	6%
Any Chronic Condition/Disability	629	13%	14%	19%	53%	18%	6%	13%	13%	14%
No Chronic Condition/Disability	845	7%	11%	32%	41%	15%	6%	4%	1%	5%
<b>By Previous USOC</b>										
Previous Charity User	169	27%	39%	61%	4%	21%	13%	6%	10%	10%
Other ER/Hospital/Clinic/Health Center OR No USOC	523	8%	10%	48%	1%	36%	10%	6%	5%	9%
Private Doctor's Office or Some Other Place	781	8%	9%	6%	87%	3%	1%	10%	6%	8%

**Table B9. Impact of Hurricane Katrina on the Health Coverage and Access of Adults in the New Orleans Area, by Selected Characteristics**  
(Percentages in Rows)

	Unweighted N	Percent Experiencing Changes in Coverage			Percent Experiencing Changes in Health Access				
		Newly Uninsured	Job No Longer Offers Health Coverage <sup>1</sup>	Job Benefits are Worse <sup>2</sup>	Meeting Health Needs Got Worse	Traveling for Medical Care Got Worse	No Longer Have a Usual Source of Care <sup>3</sup>	No Longer Have a Regular Doctor or Nurse <sup>4</sup>	See a Different Doctor or Nurse after Katrina <sup>5</sup>
<b>Total</b>	1504	4%	8%	11%	22%	18%	7%	13%	29%
<b>By Parish</b>									
Orleans	901	5%	15%	13%	25%	21%	9%	20%	27%
Jefferson	569	4%	5%	11%	18%	16%	7%	8%	31%
<b>By Race/Ethnicity</b>									
White, non-Hispanic	753	3%	4%	8%	22%	17%	5%	9%	27%
African American, non-Hispanic	597	5%	14%	16%	23%	22%	13%	26%	31%
<b>By Economic Status</b>									
Economically Disadvantaged	585	7%	20%	23%	26%	24%	12%	23%	49%
Not Economically Disadvantaged	895	2%	4%	6%	19%	14%	5%	9%	21%
<b>By Age</b>									
18-29	229	6%	†	16%	14%	17%	12%	17%	†
30-49	558	3%	3%	10%	19%	19%	7%	13%	22%
50-64	421	6%	12%	12%	32%	18%	7%	14%	29%
65+	293	^	†	†	17%	16%	6%	11%	32%
<b>By Health Coverage</b>									
Uninsured	309	N/A	†	22%	35%	21%	27%	46%	†
Insured (any)	1179	N/A	2%	7%	18%	18%	4%	9%	28%
Private Coverage	721	N/A	2%	7%	17%	16%	3%	8%	23%
Medicare	299	N/A	†	3%	19%	18%	5%	10%	33%
Medicaid	127	N/A	†	9%	17%	32%	13%	19%	†
<b>By Health Status</b>									
Fair/Poor	212	10%	†	†	37%	30%	10%	16%	28%
Excellent/Very Good/Good	1290	3%	6%	10%	20%	16%	7%	13%	29%
Any Chronic Condition/Disability	629	5%	11%	9%	27%	22%	7%	12%	30%
No Chronic Condition/Disability	845	3%	6%	12%	18%	15%	7%	14%	27%
<b>By Previous Usual Source of Care</b>									
Previous Charity User	169	5%	†	26%	32%	29%	†	†	†
Private Doctor's Office/Other	781	4%	7%	9%	24%	20%	6%	12%	28%
Other ER/Hospital/Clinic/Health Center OR No USOC	523	3%	7%	11%	15%	11%	8%	12%	24%

NOTES: ^ denotes a value of less than 0.5 percent. --- denotes no respondents selected this answer as a response.

† denotes that the number of interviews for this subgroup is too small to report results separately

<sup>1</sup> Among those employed both before and after Hurricane Katrina whose pre-Katrina job offered health benefits, n=492 (33% of adults). Unweighted Ns for each subgroup are not shown.<sup>2</sup> Among those employed both before and after Hurricane Katrina, n=766 (53% of adults)<sup>3</sup> Among those who had a usual source of care pre-Katrina, n=1092 (74% of adults)<sup>4</sup> Among those with a regular provider pre-Katrina, n=912 (66% of adults)<sup>5</sup> Among those with a regular provider before and after Katrina, n =772 (57% of adults)

Table B10. Likely Source of Hospital Care Pre- and Post-Katrina, by Income, Race, and Health Coverage (Percentages in Columns)																										
	Total		By Economic Status						By Race/Ethnicity						By Coverage											
			Economically Disadvantaged			Not Economically Disadvantaged			White, non-Hispanic		African American, non-Hispanic		Hispanic		Uninsured		Private Coverage		Medicare		Medicaid					
			Pre-Katrina	Post-Katrina	%	Pre-Katrina	Post-Katrina	%	Pre-Katrina	Post-Katrina	%	Pre-Katrina	Post-Katrina	%	Pre-Katrina	Post-Katrina	%	Pre-Katrina	Post-Katrina	%	Pre-Katrina	Post-Katrina	%			
<b>East Jefferson General Hospital</b>	20%	24%		19%	21%		28%	33%		8%	11%		19%	21%		12%	12%		24%	29%		20%	24%		18%	19%
<b>Kenner Regional Medical Center</b>	4%	4%		5%	8%		3%	3%		5%	7%		4%	5%		5%	5%		3%	4%		3%	3%		7%	9%
<b>Charity Hospital (MCLNO)</b>	9%	1%		22%	1%		2%	^		25%	1%		5%	^		22%	3%		5%	^		2%	^		24%	1%
<b>Memorial/Baptist</b>	5%	^		4%	1%		5%	^		6%	----		4%	1%		2%	----		7%	^		4%	1%		1%	----
<b>Ochsner</b>	18%	22%		11%	14%		22%	27%		12%	16%		12%	13%		8%	13%		22%	26%		23%	25%		10%	13%
<b>Touro</b>	7%	11%		5%	11%		8%	11%		12%	21%		4%	4%		4%	6%		8%	12%		8%	11%		8%	11%
<b>Tulane</b>	2%	4%		3%	5%		2%	3%		3%	5%		2%	4%		2%	3%		3%	4%		2%	4%		3%	5%
<b>West Jefferson Parish Hospital</b>	12%	14%		12%	17%		12%	11%		13%	16%		8%	11%		12%	14%		13%	14%		10%	11%		17%	25%
<b>Don't Know</b>	7%	10%		3%	9%		9%	10%		4%	9%		30%	32%		18%	29%		4%	4%		5%	8%		----	1%

NOTES: ^ denotes a value of less than 0.5 percent. ---- denotes no respondents selected this answer as a response.

<sup>1</sup>Includes reports for both Charity and University Hospital. At the time of the survey, Charity Hospital remained closed and University Hospital (also part of MCLNO) had not yet reopened.





## APPENDIX C: SURVEY METHODOLOGY

The Kaiser Post-Katrina Baseline Survey of the New Orleans Area was designed and analyzed by researchers at the Kaiser Family Foundation. This in-person survey was conducted door-to-door from September 12 to November 13, 2006. Interviews were completed in English and Spanish among 1,504 randomly selected adults ages 18 and older residing in Orleans, Jefferson, Plaquemines, and St. Bernard parishes. These four neighboring parishes make up Region 1 as defined by Louisiana's Department of Health and Hospitals, an administrative region used for recovery planning, and are referred to as the Greater New Orleans area throughout this report.



The sample design was a stratified area probability sample, with 456 sampling points distributed proportionate to expect population size in each of the 4 parishes, and in each of 14 Census tract defined neighborhoods in Orleans Parish (New Orleans proper). An oversample was drawn in Orleans to allow for more reliable estimates at the neighborhood level in that parish. The final results have been weighted so that Orleans Parish reflects its estimated share of the population in the four-parish area.

The table below shows the number of respondents and margin of sampling error for the total sample and for key subgroups (note that the number of respondents in Plaquemines and St. Bernard are too small to allow for separate reporting; responses for those parishes are included in the total). For results based on other subsets of respondents the margin of sampling error may be higher.

	<b>Number of respondents</b>	<b>Margin of sampling error (accounting for design effect)</b>
Total New Orleans Area	1504	±4
Orleans Parish	901	±5
Jefferson Parish	569	±5
African Americans in Orleans	478	±6
Whites in Orleans	354	±6

ICR/International Communications Research collaborated with Kaiser researchers on sample design and weighting, and supervised the fieldwork using a team of 41 trained interviewers. Dr. Karen DeSalvo and her colleagues at the Tulane University School of Medicine provided helpful guidance and feedback throughout this project. In addition, the questionnaire was reviewed by Tulane's Committee on the Use of

Human Subjects. Dr. Ben Springgate of the University of California, Los Angeles also provided helpful guidance throughout the project. Interviewers carried a letter of introduction to the study from Dr. Fred Cerise, Secretary of the Louisiana Department of Health and Hospitals.

### Sample Selection and Field Work

We employed a two-stage, stratified area probability sample to account for the physical devastation of the New Orleans area, the displacement of a large share of the population, and the desire to represent the current residents of the area regardless of whether they were living in traditional housing situations or more temporary situations (e.g. FEMA trailer parks or trailers placed on business properties). This design incorporates entire area segments, so that all geographic points within the four parish area were eligible for inclusion in the sample, whether or not they were designated as housing locations prior to Hurricane Katrina.

The first stage of geographic stratification was comprised of 17 distinct, Census-defined areas, called major strata. These included Jefferson, St. Bernard and Plaquemines parishes<sup>15</sup>, as well as 14 Census tract-defined neighborhoods within Orleans Parish<sup>16</sup>. The second stage of stratification divided the seventeen major strata into Census block-defined substrata (minor strata), which were approximately equal in size, with small variations due to the desire to maintain Census block boundaries. Within each minor stratum, we randomly selected segments or “sampling points” (areas consisting of about 50 households), which were distributed proportionately by neighborhood and parish by expected population.<sup>17</sup> Fieldworkers visited a total of 456 segments (including 34 “zero blocks,” or areas that Census files indicated contained no housing units prior to Hurricane Katrina).

In each randomly selected segment, interviewers were given address listings for households from the Postal Service Delivery Sequence File (DSF)<sup>18</sup>, and were instructed to visit each address and document its condition (occupied, vacant, destroyed, etc.). New households, buildings or any other changes from the listed addresses of the block were also documented during this phase.

After documenting the status of every address (old or new) for the segment, fieldworkers attempted interviews with a group of randomly selected households, with the expectation of achieving about 5 completed interviews per segment (with some variation due to varying levels of neighborhood devastation). Interviewers were instructed to attempt up to 6 callbacks at different times of the day and different days of the week at each randomly selected household until an interview or a hard refusal was obtained. These field methods were put in place to ensure a representative sample of people who were home at different times, rather than just including the people who were easiest to find at home.

When an interviewer made contact with a randomly selected household, an eligible adult within the household was randomly selected to complete the interview using the “most recent birthday” method. Household resident ages 18 and older were eligible to participate in the survey.<sup>19</sup> There was no substitution of selected households, or of respondents within or across households.

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<sup>15</sup> Given the relatively vast geographic area of Plaquemines Parish and its relatively sparse population, particularly south of Point Sulphur, Census blocks south of that point in Plaquemines were not eligible for inclusion in this study.

<sup>16</sup> The 14 Orleans Parish neighborhoods were: Algiers, Audubon, BW Cooper, English Turn, French Quarter, Garden District, Gentilly, Lakeview, Lower 9th Ward, Marigny, MidCity, New Orleans East, 7th Ward, and Uptown.

<sup>17</sup> Estimates of expected population were made using pre-Katrina population counts combined with rough estimates of the percent of housing stock destroyed from the Census Bureau’s interim surveys and from FEMA. These estimates were then adjusted throughout the fieldwork stage as interviewers documented the state of housing (destruction, vacancy, and occupancy) in each neighborhood.

<sup>18</sup> DSF is a comprehensive database from the United States Postal Service, at the ZIP+4 level. This database relates the delivery status of every postal deliverable address in the US and whether each individual address is active, vacant, seasonal, etc. This source has become a standard for defining and enumerating non-telephone sample frames, from face-to-face designs to multi-mode (e.g., mail-telephone-personal) and strictly mail.

<sup>19</sup> Residents were defined as those who answered yes to the question: “Is this your primary residence, that is, is this where you stay most, if not all of the time?”

## Sample Weighting

Weighting was done in two distinct, successive phases. The first and most intensive was the computation of a household weight corresponding to each interview in a segment (described in detail below). In the second phase, a population weight was computed to adjust for the probability of selection given the number of adults in the household. No post-stratification weighting was performed, due to the lack of reliable post-Katrina demographic estimates for the area.

Computing household weights: In normal area probability sampling situations we would have a reasonable expectation that the measures of size employed to select the sample are reasonably accurate. In developing this sample, given the fluidity of the population and the housing devastation resulting from Hurricane Katrina, we had no such expectation. In order to get a better estimated count of the number of households in each sampling point and minor stratum for computing household weights, we used a combination approach that incorporated:

1. An external data source for post-Katrina counts of occupied housing units at the Census block level (the October 2006 update of the Postal Service DSF file); combined with
2. The results of the field operation (observations of housing characteristics and occupancy).

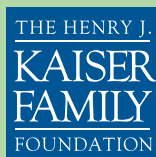
By incorporating an external data source (DSF), we had an externally verifiable count of the number of housing units, and didn't have to rely on our estimates from a small number of segments in a neighborhood to estimate occupancy rates for the entire neighborhood. The main disadvantage is that DSF tends to over-state the actual number of occupied housing units. While we would expect this overstatement to be relatively small in a typical survey project, there was a concern that the overstatement may be bigger in a place like New Orleans, where a large number of people may be receiving mail at an address but not residing there (i.e. people who are living somewhere else while re-building their home in New Orleans, or while waiting to sell their property), and also that the DSF over-statement might not be uniform across neighborhoods and parishes in the New Orleans area.

The combined three-step process for estimating the occupied household count was as follows:

1. In each minor stratum, we started with the number of occupied households according to the October 2006 DSF.
2. In each minor stratum, for Census blocks that were included in the survey sample, we compared the count of occupied households actually observed in the field to the DSF counts for the same Census blocks. This ratio was aggregated to the major stratum level, and used to estimate the DSF overstatement (or understatement) in each neighborhood.
3. We then applied this adjustment for each neighborhood to the original DSF counts in each minor stratum.

While the final adjustments made to DSF counts varied somewhat by neighborhood, they were relatively small overall, with an adjustment factor of .91 for the total four-parish area.

NOTE: A full survey questionnaire and topline are included as Appendix E in *Giving Voice to the People of New Orleans: The Kaiser Post Katrina Baseline Survey (#7631)*, available on the Kaiser Family Foundation's website at <http://www.kff.org/kaiserpolls/pomr051007pkg.cfm>.



Additional copies of this publication (#7659) are available on the Kaiser Family Foundation's website at [www.kff.org](http://www.kff.org).

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