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*The Recovery Divide:
Poverty and the Widening Gap Among
Mississippi Children and Families
Affected by Hurricane Katrina*

A report of the Mississippi Child & Family Health Study, based on an August 2006 household survey of displaced and impacted families living in Mississippi

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Mississippi Child & Family Health Study

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Executive Summary

Six months after Hurricane Katrina hit the Gulf Coast, a Columbia-led research team conducted a random household survey of people who had been displaced by the disaster in Louisiana. Mental health disability and psychological strain were rampant, people's lives were chaotic, and their futures were uncertain. The children who had been displaced were often socially and medically adrift – many of them were disengaged from schools, without medical homes, and living among very fragile families¹. One year after the hurricane, we replicated the study among residents of Mississippi's Gulf Coast who had been heavily impacted or displaced by the hurricane. Based on interviews conducted with randomly sampled residents, it appears that the situation remains dire or is worsening for a number of people. Furthermore, there is evidence of an economic determinism at work, in that those who had been struggling to maintain their financial footing at the time of the hurricane – particularly the working class and the working poor – have been forced back down the socioeconomic ladder towards impoverishment and dependency.

The first wave of research on populations affected by Katrina reflected the impact of the initial response – consequences of evacuation, displacement, and massive economic and social loss². One year out from the hurricane, circumstances are driven by the opportunities for long-term recovery, or by the boundaries of how far people can recover. Recovery has become a test of resilience – who will bounce back, both in terms of people and in terms of geography? The premise of much recovery policy is to invest in geographically-based recovery – the bricks and mortar of critical infrastructure, housing, and markets – with the notion that once a place has recovered, the population's recovery will follow as well. Findings from the Mississippi Child & Family Health (M-CAFH) study suggest that the population recovery – particularly among the most economically and socially vulnerable – may be lagging significantly behind that of other infrastructure recovery.

How the Study was Conducted

During the period of August 6 through August 26, 2006, the Columbia-led Mississippi Child & Family Health Study, working in partnership with the Mississippi State University Social Science Research Center, conducted an assessment among Mississippi residents displaced or heavily impacted by Hurricane Katrina. The purpose of the study was to gather information that could inform local, state, and federal

¹ See DM Abramson and R Garfield (2006), "On the Edge: Children and Families Displaced by Hurricanes Katrina and Rita Face a Looming Medical and Mental Health Crisis." National Center for Disaster Preparedness, Columbia University: <http://www.ncdp.mailman.columbia.edu/files/LCAFH.pdf>

² In particular, see (1) Brodie M, E Weltzien, D Altman, R.J. Blendon, and JM. Benson (2006). "Experiences of Hurricane Katrina Evacuees in Houston Shelters: Implications for Future Planning." *American Journal of Public Health*. 96(8): 1402-1408; (2) Kessler RC, S Galea, RT Jones, HA Parker et al (2006). "Mental illness and suicidality after Hurricane Katrina." *Bulletin of the World Health Organization*, 84:930-939; (3) Keller RC et al (2006). "Overview of baseline survey results: Hurricane Katrina community advisory group." Harvard Medical School; (4) Larrance R et al (2006). "Displaced in America: Health status among internally displaced persons in Louisiana and Mississippi travel trailer parks." International Medical Corps; (5) "Hurricane Katrina Evacuees in Texas" (2006). Epidemiology Team, Strategic Decision Support. Texas Health and Human Services Commission; and (6) Townsend S and N Dajko (2006). "Rapid assessments of temporary housing camps for hurricane-displaced children and families." Save the Children.

policymakers about the health and social service needs of displaced and impacted populations living in transitional community-based settings, such as trailer parks, and in community settings that had been heavily damaged or destroyed by the hurricane. Following a multi-stage sampling strategy based on lists of trailer parks provided by FEMA as well as FEMA damage assessment maps, 576 randomly-selected households were recruited in to the study. The study team also collected data on a randomized selection of children within the sampled households.

Key Findings

Because the Mississippi Gulf Coast was in the hurricane's direct path it bore the brunt of Katrina's windforce and tidal surge in August 2005. Many Mississippi residents have felt that their disaster was overshadowed by the devastation in New Orleans, and then mostly forgotten as the country's attention turned to other matters. A year after the hurricane hit the coast, though, it's impact is still keenly felt along the fifty-mile stretch of the Mississippi Sound, from Waveland to Biloxi/Gulfport to Pascagoula. Gaping swaths of empty land and concrete slabs dominate a landscape where houses, churches, businesses, and entire commercial districts once stood. The three county-area of Hancock, Harrison, and Jackson counties had been home to over 375,000 people before the hurricane, but nearly a third of the 165,000 housing units were either destroyed or had suffered major damage in the storm. As of August 2006, FEMA had placed 26,363 travel trailers on private lots and were maintaining another 6,000 travel trailers and mobile homes in trailer parks and congregate settings. Assuming an average of 2.5 individuals per household, this suggests that at least 81,000 people are still living in temporary or transitional housing in these counties. The 576 adults interviewed in Mississippi during this survey effort represent approximately 37,000 residents who are either living in the most devastated areas – the census block areas in the three coastal counties that had sustained moderate, extensive, or catastrophic damage during the hurricane – or who had been placed in trailer parks. The margin of error for most of the reported rates is ± 4 percentage points³. Among the central findings of the randomized household study are the following:

- **The Poverty Penalty:** Households that had been among the working class and the working poor at the time of Katrina were most vulnerable to the economic impact – 53% of households with an annual income below \$10,000 lost all salaried jobs in the household after the hurricane, compared to 15% of households with annual income above \$20,000. Reinforcing this notion of the economic tenuousness of their lives, among those living in FEMA trailer parks only half had access to a bank account and only 16% had a credit card whereas in the impacted community areas 87% had access to a bank account and 49% had a credit card.
- **Persistent Emotional Stress Among Children:** Over half the parents and caregivers interviewed reported that at least one child in the household had experienced emotional or behavioral issues since the hurricane, an even higher rate than reported among displaced Louisiana residents six months after the hurricane. Furthermore, there was a near fourfold increase in the clinical diagnosis of depression or anxiety in children after the hurricane, and the prevalence of behavioral or conduct problems doubled.

³ The margin of error means that there is 95% confidence that the true population estimate is within four percentage points above or below the reported rates. For example, if 15% of the adults in the sample reported that a child was diagnosed with asthma prior to the hurricane, then there is a 95% probability that the population rate lies between 11% and 19%.

- **Parents' Mental Health Strain and Disability:** Parents and caregivers themselves reported exceedingly high rates of mental health distress and disability, well above the levels found among groups suffering from a debilitating chronic disease and even higher than Louisiana caregivers surveyed in February 2006. Sixty-two percent of Mississippi caregivers scored low on a standardized mental health score, suggestive of high levels of clinical anxiety, depression, and post-traumatic stress disorder, and 13% of caregivers reported that they were not coping well with the daily demands of parenting, a rate eight times higher than that reported by parents in pre-Katrina surveys conducted in Mississippi in 2003. Rates of diagnosed hypertension among all adults increased by 35% since the hurricane.
- **High Rates of Children's Uninsurance:** Although insurance coverage is low among Louisiana (44%) and Mississippi parents and caregivers (41%), rates of uninsurance among children were twice as high in Mississippi (20%) as they were in Louisiana (8%)⁴, and significantly higher than pre-Katrina uninsurance rates of 8% among Mississippi respondents in the National Survey of Child Health. One out of six children who needed medical care for an illness or injury since the hurricane did not seek care.
- **Disengagement with School:** As with Louisiana school-age children, the measures of school disengagement among Mississippi school-age children were excessively high. Among elementary school children six to eleven years old, 29% had missed ten or more days of school in a given month during the last quarter of the spring semester, and 41% of teenagers missed at least ten days of school in a given month during the same period.

One year after the hurricane, two pictures of Mississippi emerge. The first is of social stratification, with those with greater resources having some success at slowly rebuilding their homes and maintaining their household income, whereas those with the least (including those with poverty or near-poverty level incomes) are increasingly jobless and isolated in dismal trailer parks. The second picture, though, is the commonality of certain negative health and health-related outcomes, such as high uninsured rates, high rates of depression, anxiety, and emotional issues among both parents and children, and high rates of children who have lost their "medical home" since the hurricane, regardless of their economic and housing situation.

Additionally, the settings in which we interviewed Mississippians may represent their own hierarchy of stability. Individuals and families with whom we spoke in the impacted community areas were predominantly home-owners, and although 70% of them were living in trailers on their property most were in the process of rebuilding their homes or could see the potential for recovery in the near-term. Overall, they had greater social and economic resources than did the residents of the congregate trailer parks. Even among the people in the trailer parks, though, there appeared to be a widening gap between people living in FEMA-built trailer parks and those living in commercial trailer parks. According to personal communication with FEMA administrators, the population living in the congregate trailer parks is continuously shifting as a result of two screening processes. In the first, as modular homes are made available, those households that qualify (generally larger households with children) are

⁴ Louisiana rates of uninsurance among children may be artificially low due to the Disaster Relief Medicaid program, which had been in effect at the time of the Louisiana study

moved from the smaller travel trailers to the larger mobile homes. Generally speaking, the modular homes have been placed in commercial trailer parks. The second screening involves an ongoing effort by FEMA to determine eligibility for housing assistance. Among the eligibility criteria for housing assistance is the requirement that a household's pre-hurricane housing has been destroyed or is uninhabitable. According to a local senior FEMA administrator, there have been residents in the congregate trailer parks who did not meet this criterion, and they have often been moved from the commercial trailer parks to FEMA trailer parks pending further investigation. The net result of these two screening processes has been a population shift in which larger and more stable families have moved out of FEMA trailer parks, and smaller and less economically-stable families have moved in.

Background

The most extensive population estimates of the affected area were produced by the US Census Bureau as part of the American Community Survey Gulf Coast Project, in which they compared sample data from the first eight months of 2005 (through August, prior to the hurricane) with that of the last four months (Sep - Dec 2005)⁵. The Census Bureau projected that as of December 2005 approximately 447,827 individuals had been displaced from the impacted areas of Louisiana and Mississippi, among which were 163,106 children under the age of eighteen (36.4%). These census data highlight the massive migration that took place as a result of Hurricane Katrina, on a scale rarely seen in American history. During the current recovery and rebuilding phase, the impacted and displaced populations have found themselves in a variety of permanent, temporary, and transitional settings. Some have returned to their homes (often living in FEMA-supplied trailers in their front yard or in tents while rebuilding), others have found permanent or transitional shelter in the private housing market in their home state or in new states, and at least 37,500 people are living in FEMA-subsidized congregate settings such as trailer parks or mobile home parks⁶. In an effort to begin documenting the conditions, health status, and social service needs of these affected populations, Columbia-led research teams collaborated with Louisiana State University, Tulane University, the Louisiana Department of Health and Hospitals, and the Mississippi State University Social Science Research Center to conduct household interviews with a random sample of impacted or displaced populations within their respective states. The first study, the Louisiana Child and Family Health study (L-CAFH) was conducted 6 months after Hurricane Katrina. The second, the Mississippi Child and Family Health study (M-CAFH), was conducted one year after Katrina.

In August 2006, a research team from Columbia University's National Center for Disaster Preparedness and The Children's Health Fund's Operation Assist conducted a randomized household survey of families in the Mississippi Gulf Coast who were impacted or displaced by Hurricane Katrina in 2005. As a follow-up to the Louisiana Child & Family Health Study conducted by the same investigators in February 2006, the Mississippi Child & Family Health study was designed to be a rapid health and social service assessment of displaced and affected populations, with a particular focus on children and families. Whereas the Louisiana study focused exclusively on those people living in FEMA-subsidized congregate settings (such as trailer communities and

⁵ US Census Bureau, "2005 Gulf Coast Area Data Profiles," downloaded 6/12/06, www.census.gov

⁶ Estimate based on FEMA data of approximately 6000 trailers on aggregate sites in MS and 9000 trailers on aggregate sites in LA, assuming a minimum of 2.5 individuals per household, a conservative estimate based on L-CAFH and M-CAFH data.

hotels), the Mississippi study also included people who were living in heavily impacted areas, either in trailers on their private lots or who had returned to their houses.

Using FEMA damage assessment maps of Mississippi's three coastal counties hardest hit by the hurricane⁷, the team randomly selected 150 of 650 census blocks (primary sampling unit clusters) which had been characterized by FEMA as having sustained moderate or extensive damage. An advance team visited each sampled census block, drew a map enumerating all existing housing structures (including trailers and tents), and made an effort to characterize each housing unit's type (e.g., single-family home, multi-family dwelling, commercial establishment, etc.) and status (e.g., occupied, vacant, destroyed). The advance team enumerators were instructed to treat foundation slabs as presumed sites of destroyed homes, and any other evident housing footprint as a housing unit to be counted. Each of the census blocks contained between 1 – 80 housing units, with an average of 8 – 10 housing units. The field team used these maps to guide their effort, methodically going door to door in these 150 sampled census blocks, as well as at 13 randomly selected trailer parks. Over a three-week period, 576 interviews were conducted. As in Louisiana, these Mississippi residents reported on their health status and health care needs, described their children's physical and mental health needs, and talked about the resources available to them as well as their plans for the future.

At each household, an eligible adult respondent was sought who (a) lived at that site, and (b) was the "primary caregiver," someone who would know the health issues of all the individuals in the household. Each survey took an average of 30-45 minutes to complete. All members of the household were enumerated and selected data were collected on all household members (e.g., age, gender, relationship to respondent, school attendance, chronic health conditions). In addition, a Kish sampling strategy was used to randomly select one child in the household for more detailed questions⁸. Survey measures included the Medical Outcome Study SF-12 version 2⁹, in order to characterize physical and mental health disability, as well as items drawn from the HRSA-funded National Survey of Children's Health (NSCH). Domains of interest included pediatric and adult health status; the prevalence of chronic medical conditions among sampled households; access to health care and services, including health insurance coverage; primary medical, specialty, and dental care needs among sampled children; the prevalence of behavioral conditions and learning disabilities among children; household characteristics such as social and economic resources; social service needs; a brief history of the residents' displacement after the hurricanes; and the demographics of the displaced population.

⁷ FEMA ITS Mapping and Analysis Center, flood and damage assessment as of Sep 21, 2005. The FEMA damage assessment maps were based primarily on aerial surveillance techniques; subsequent damage assessments conducted by the American Red Cross suggest that while the FEMA maps captured most of the destroyed dwellings, they only represented 55% of damaged dwellings (see "Hurricane Katrina: Social-Demographic Characteristics of Impacted Areas," Congressional Research Service report, Nov 4, 2005).

⁸ See L Kish (1965) *Survey Sampling*, John Wiley & Sons: New York, chapter 11.

⁹ SF-12v2™ Health Survey, © 2002 by QualityMetric Inc.

Results

The research team began with 2,684 household units that had been sampled based on the census block mapping and the trailer camp population (see Table A1 in the Appendix). Of those sampled units, 298 had been destroyed or were concrete slabs, 147 were either vacant lots or had trailers occupied by construction workers or contractors, and 540 were vacant or abandoned units. Of the remaining 1,699 units in the sampling frame, 764 had an eligible adult present to whom the study was presented (at 935 homes, either no one was home, no eligible adult was present, or the unit was not approached). A total of 576 adults agreed to participate, yielding a response rate of 34% (576 / 1,699) and a cooperation rate of 75% (576 / 764). Within the limits of the field work operation, sampled housing units were visited multiple times within a four-hour window, and often re-visited on a second day. Among the 764 adults engaged, only 60 (8%) refused to participate.

Table 1 illustrates the housing landscape in the three coastal counties. According to the US Department of Housing and Urban Development, approximately one-third of all housing units were either destroyed or suffered major damage. The research team identified 20% of all housing units as having been destroyed, but could not account for “major damage” since a number of houses were either under repair or habitable as a result of renovations. A number of residents in these coastal counties are still living in trailers, either on their private lots or in congregate parks.

Table 1. Housing units and trailers in sampled Mississippi counties

Mississippi county	Total housing units (Census, 2004)	Housing units with major damage or destroyed (HUD, Feb 2006)	Percentage destroyed	Total # FEMA trailers on private lots	Total # FEMA trailers in congregate parks
Hancock	22,996	11,786	51.3%	8,422	912
Harrison	86,556	24,430	28.2%	10,049	2,422
Jackson	55,548	16,296	29.3%	7,892	1,339
TOTAL	165,100	52,512	31.8%	26,363	4,673

The findings that follow are generally drawn from tables presented in the Appendix. Wherever possible we have contrasted findings from the Mississippi study with that of the Louisiana study, although it should be noted that differences between the two states may be a function of the unique populations or social environments within each state, or it may be a function of time.

The Geography of Displacement and Impact

- Respondents in trailer camps have been living there an average of half a year, and have moved an average of three times since the hurricane. A little over half in the trailer camps had evacuated prior to the hurricane. Among respondents living in the impacted community, 83% had evacuated prior to the hurricane. Those in the community reported that they also had moved approximately three times since the hurricane, and indicated an average tenure of a little over two years at their current home. A little over a quarter of trailer park respondents are

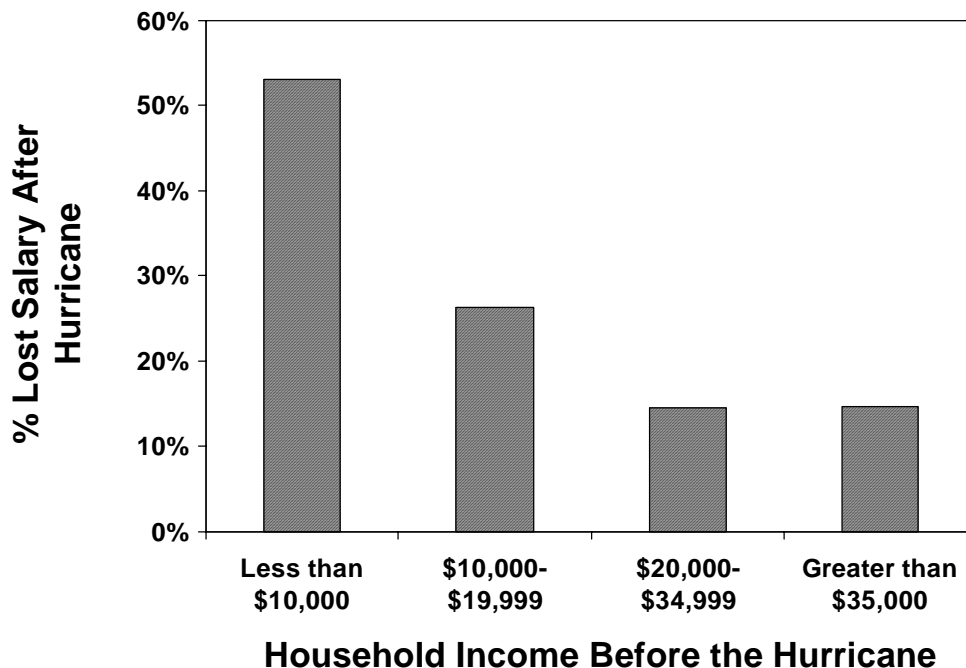
living in the same zip code one year after the hurricane as they had been at the time of the hurricane. 85% of those people living in the impacted areas were in the same zip code at the time of the interview as they were at the time of the hurricane (please see Table A2)

- Among people living in trailer parks, a little under half are planning to relocate somewhere other than their pre-Katrina community, which is higher than the rates reported by Louisiana trailer park residents six months after the hurricane (37% for FEMA trailer park residents and 31% for private trailer park residents). On the other hand, uncertainty has decreased – approximately 7% of Mississippi residents are unsure of their relocation plans, compared to 12% of Louisiana trailer park residents six months earlier. In comparison to the Mississippi trailer park residents, only 26% of individuals living in the impacted areas in the community are planning to relocate outside their current community (Table A2).

Social and Economic Demographics

- Overall, the mean number of people per household is 2.6, with slightly more living in private trailer parks (2.9 per household) and slightly fewer in the impacted community areas (2.5). The private trailer park households were the most likely to have children in the house (49%) compared to the FEMA trailer park homes (42%) and the community impacted areas (32%). Among households with children present, the proportion of single-parent households was highest among the FEMA trailer park homes (44%), followed by the private trailer park homes (34%) and the community impact areas (23%) (Table A3).

Household Salary



Of households receiving a salary before the hurricane

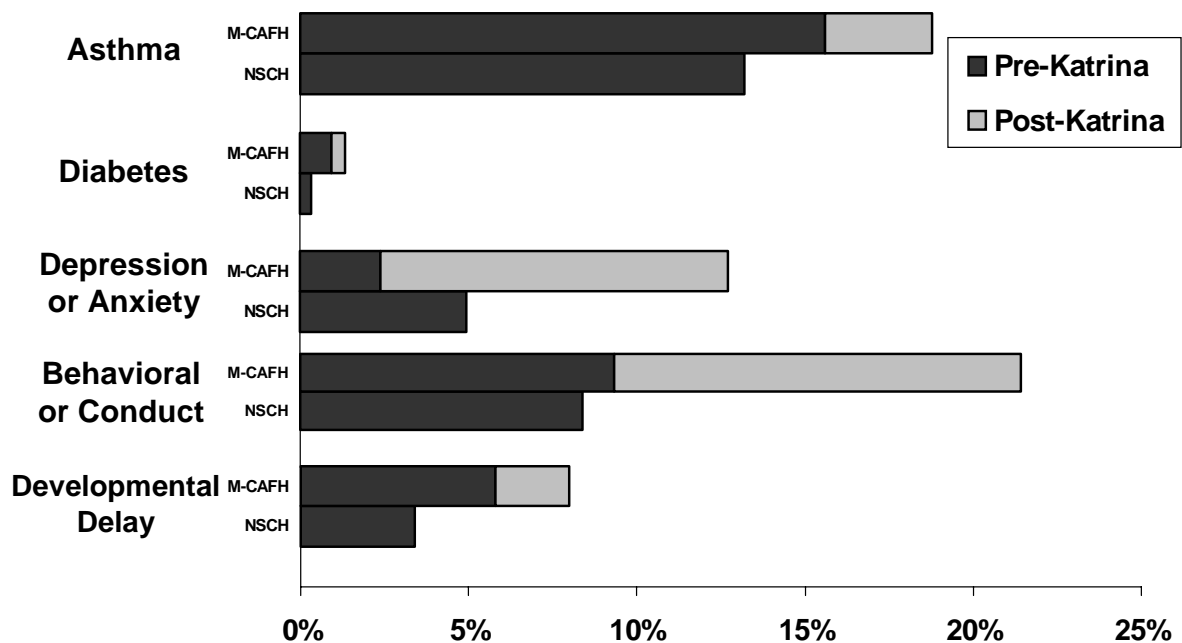
- In contrast to Louisiana, where an overwhelming majority of respondents (over 81% in the trailer parks) had been born in the state, approximately half of the trailer park residents in Mississippi were born in the state, and 30% of the residents living in the community impact areas. There were more foreign-born residents in Mississippi (6% of all respondents) than there were in Louisiana (1%) (Table A4).
- The race and ethnicity of respondents varied considerably by housing setting. Among FEMA trailer park households, 50% of respondents were black or African-American, compared to 34% in private trailer parks and only 2% in the impact communities. Rates of Latino respondents were relatively similar across these housing settings, ranging from 2.9% in the impacted communities to 4.2% at the FEMA trailer parks (Table A5).
- Household income also varied by housing site: nearly three-quarters of respondents living in FEMA trailer parks had household incomes below \$20,000, in contrast to two-thirds of private trailer park households and half of impacted community households. On the other end of the household income scale, 7% of respondents living in trailer parks had an annual incomes above \$50,000 compared to 18% of households in the community impact areas. Residents living in the impacted community areas, in addition to generally being older and without resident children at home, were less likely to be in the labor force (85 to 88% of trailer park residents had at least one household member in the labor force, whether currently employed or not, compared to only 72% of community households with a member in the labor force), and those in the community impact areas were also less likely to have lost a salary in the household since the hurricane (13% compared to 26% in the FEMA trailer parks) (Table A5 - A6).

Children's Health

- In contrast to Louisiana, where 46% of caregivers reported that children had lost their “medical home” since the hurricane, 18% of Mississippi caregivers indicated that their children had lost a medical home. Overall, a similar proportion of caregivers in both Mississippi and Louisiana reported that their children had a medical home prior to the hurricane (77-79%). Among caregivers living in Mississippi FEMA trailer parks, 18% said that their children did not have a medical home before or after Katrina, compared to 25% of caregivers in Louisiana trailer parks (Table A8).
- The prevalence of certain sentinel childhood chronic conditions pre-Katrina was generally similar to the rates reported in Mississippi as part of the 2003 National Survey of Child Health (NSCH). Although the rates of diagnosed asthma and developmental delay increased slightly since the hurricane (3%), the rates of depression or anxiety nearly quadrupled since the hurricane, and the rates of behavioral or conduct problems doubled (Table A9).
- Other measures of children's emotional and behavioral difficulties were similarly high. Overall, over half of the caregivers interviewed (53%) reported that at least one child in the household had experienced emotional or behavioral problems since the hurricane, a figure higher than the rate of 44% reported by Louisiana caregivers six months after Katrina. Approximately two-thirds of Mississippi caregivers and parents reported that their children were experiencing such symptoms as being very sad or depressed, or feeling nervous or afraid, and 85%

of parents indicated that these symptoms were still persisting. Among the caregivers and parents who reported that their children were experiencing these problems, only 29% sought professional help. Of those parents who did not seek help, almost one-half indicated that the problem was not serious enough to warrant professional attention (or may simply have been a child-development issue), and one-third said that there was some instrumental barrier preventing them from accessing professional mental health services – they couldn't afford it, their insurance didn't cover it, they didn't know where to go, they didn't have transportation, or they didn't have child care (data not shown).

Children's Chronic Disease



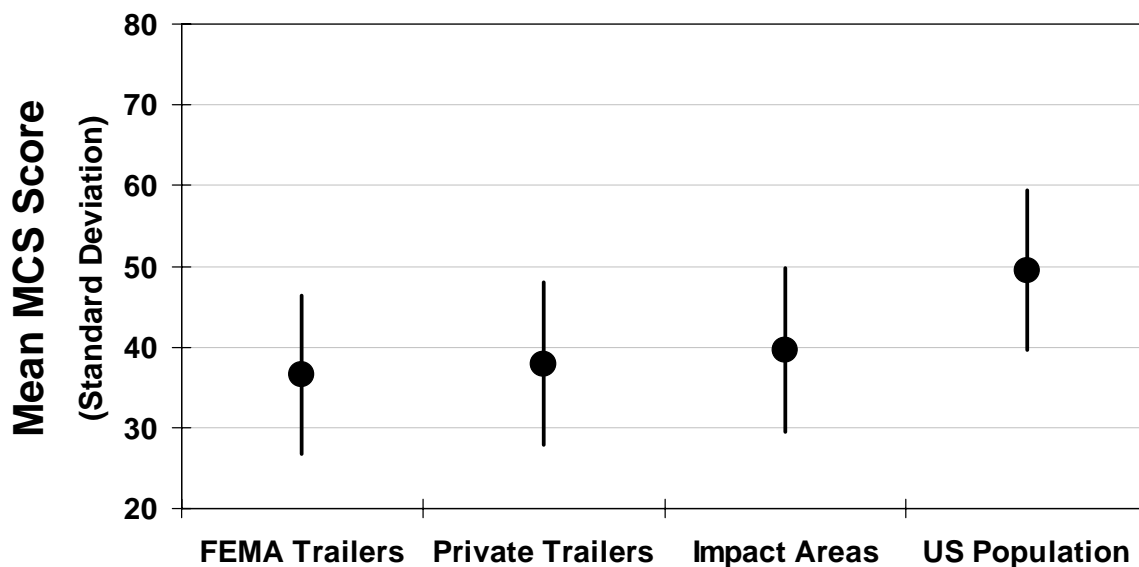
- Approximately one-quarter of the children needed to see a medical specialist at some point over the prior year. Among those children, 98% of those living in private trailer parks were seen by a specialist, compared to 85% in community impact areas and 78% in FEMA trailer parks. Among children between the ages of 5 and 17, about half had seen a dentist in the past year, although a fairly large number (ranging from 7% in community impact areas to 20% at FEMA trailer parks) had never seen a dentist in their life (Table A8).
- Large numbers of children were uninsured, according to their parents and caregivers. Overall, 20% of children were uninsured, and that figure did not vary much by housing setting – 23% of children living in private trailer parks were uninsured, compared to 17% at FEMA trailer parks, and 20% in community

impact areas. Medicaid or CHIP and private insurance rates did vary slightly by setting. Among children in community impact areas, half were insured by Medicaid or CHIP and an additional 15% by private insurance, compared to children living in trailer parks, of whom approximately 70% were insured by Medicaid or CHIP and an additional 5-6% by private insurance (Table A13).

Caregiver Health

- Slightly more than half of all parents and caregivers had a chronic health condition, with the most common being hypertension (31%), a physical disability (20%), asthma or other respiratory problem (14%), and diabetes (13%). 41 percent of caregivers were uninsured (Table A11).
- Although parents and caregivers scored close to the US population on a standardized physical health score, their scores on a mental health scale were significantly below those of the US population and even below those of populations with chronic or debilitating conditions. Over half of parents (44%) were scored very low on the Medical Outcome Study mental health component summary scale (MCS score), which is consistent with clinically diagnosed

Mental Health



psychiatric symptoms such as anxiety and depression. In line with these findings, a relatively large number of parents indicated that they were not coping well, or not coping at all, with the daily demands of parenting (13%, compared to pre-Katrina rates of 2% in the NSCH) (Tables A11 - A12).

Safety, Stability, and Schools

- Parents and caregivers expressed considerable concern regarding issues of safety and security for their children, with rates higher in trailer parks than in the community impact areas. When asked if there were people in their neighborhood who would be a bad influence on their children, 85% of parents in FEMA trailer parks concurred, compared to 78% in private trailer parks and 53% in the community impact areas. Over 60% of parents in both FEMA and private trailer parks believed that their children were generally not safe in their communities, in contrast to 32% of parents in the impact areas. In particular, Mississippi parents' concern for their children's safety and security in FEMA trailer parks was higher than that expressed by Louisiana parents in FEMA and private trailer parks. In both states, parents in the FEMA trailer parks were at least twice as likely to believe that their children were not particularly safe at school in comparison to parents in private trailer parks. When all adults were asked if they were afraid to walk around their neighborhood at night, approximately 60% of adults in FEMA and private trailer parks indicated that they were afraid, compared to 39% of adults living in the community impact areas (Table A14).
- As with Louisiana parents, Mississippi parents and caregivers reported high rates of school disengagement. Among elementary-school children, 29% had missed ten or more days of school over the course of a given month during the last three months of school in the Spring of 2006. Among middle- and high-school children, parents reported that 41% had missed ten or more days of school over a comparable time period. Only 84% of these teenagers successfully completed their school year. Among parents in the trailer parks, 42% indicated that their children would be attending school in the Fall at a school in their pre-Katrina community, and 46% said their children would be going to school in their new community (12% of parents did not answer this question) (Table A15).

Social service needs

- When asked if they needed help or assistance in specific areas, Mississippi residents ranked their needs much the way Louisiana respondents had six months earlier. The top service needs were financial matters (62%), household items or clothing (46%), food, groceries, or meals (44%), and emotional and psychological issues (38%). These expressions of need were lower than those of Louisiana respondents by an average of ten to twelve percentage points, but their reports of having received any service to meet these needs also lagged behind Louisiana. Of those individuals who mentioned a need for financial help, only 27% indicated that they had received help in this area within the past three months, compared to 62% of Louisiana residents who said they had received help. In two other areas – household items and transportation – Mississippi respondents were less likely to report having received help, whereas in one area in particular, emotional or psychological difficulties, Mississippi residents were slightly more likely to report having received help. One possible explanation for any reduction in receipt of service is that with the progression of time and various recovery efforts, fewer “disaster-related” services are available. Furthermore, Mississippi residents may have reported more mental health services because of the aggressive outreach activities of the state-run mental health program Project Recovery (Table A17).

Conclusions & Policy Recommendations

One year after the hurricane the recovery is far from complete for a number of Mississippi residents heavily impacted by Katrina. Among the disturbing findings are the persistence of mental health disability and strain so long after the precipitating event, the continued instability and inherent chaos among the lives of families and children, and the daily impact of persistent poverty – particularly among households that had been struggling to maintain subsistence wages prior to the hurricane. The data suggest a “**Recovery Divide**,” in which those with access to resources are the likeliest to rebuild their homes and their lives, and those without are left to languish.

The Mississippi study reinforced findings from the earlier Louisiana study, and are easily confirmed by even casual visitors to the congregate trailer parks or heavily impacted areas in either state, that little progress has been made in the process of creating a normal environment for families wishing to return to their homes and communities or permanently resettle elsewhere. The current study offers evidence that conditions for those most harshly impacted by the catastrophic storm – particularly children and their families – remain dangerously sub-optimal, much as did the previous Louisiana analysis. High rates of behavioral and emotional difficulties in children, missed school to the point of jeopardizing academic progress, depression among caretakers, and lack of medical insurance among children provide stark clarity about some of the challenges faced by displaced families. Moreover, finding secure employment and reliable transportation adds additional stresses to an already beleaguered population.

This study and the prior study in Louisiana highlight the pressing need to accelerate recovery efforts. The task is clearly momentous. As of January 2007, the US Congress had allocated over \$110 billion in response, recovery, and mitigation funding in response to Hurricanes Katrina and Rita¹⁰. By comparison, a US Senate Bipartisan Task Force in 1995 calculated that the federal expenditures for all disasters occurring between 1977 to 1993 (including Hurricane Andrew and California’s Loma Prieta earthquake) totaled \$170 billion (in current dollars)¹¹. Notwithstanding the large amounts committed to the Gulf states, the most vulnerable populations are often at the end of the recovery and rebuilding funding pipeline. Furthermore, as recent Senate hearings illustrated, the funding pipeline itself is beset by problems of fraud, bureaucratic barriers, and political stalemates¹². To illustrate, although Louisiana was allocated approximately \$12 billion through the Department of Housing and Urban Development’s Community Development Block Grant program (CDBG) to assist homeowners in rebuilding, and over 100,000 Louisiana homeowners had applied, only 359 people had received a grant. Similar stories were reported for other types of recovery monies, whether it was for public sector or critical infrastructure construction projects, or for Small Business Administration loans. For many, the funding pipeline was often viewed as having slowed to a trickle.

¹⁰ Testimony of Donald E. Powell, Office of the Federal Coordinator for Gulf Coast Rebuilding, Department of Homeland Security, before US Senate Committee on Homeland Security, Jan 29, 2007.

¹¹ See US Senate Bipartisan Task Force on Funding Disaster Relief (1995). *Federal Disaster Assistance*. Wash DC: US Government Printing Office. CPI inflation calculation of 1993 dollars based on <http://oregonstate.edu/cla/polisci/faculty/sahr/sahr.htm>.

¹² US Senate Committee on Homeland Security and Governmental Affairs hearing, “Hurricanes Katrina and Rita: Outstanding Need, Slow Progress,” Jan 29, 2007. Accessed at <http://hsgac.senate.gov>

For the poorest and most vulnerable populations, though, there is no pipeline in sight. They are the least likely to be homeowners, and the individual assistance they did receive – such as temporary housing or rental vouchers – may soon be coming to an end. These individuals, children, and families are most dependent upon enhanced social services and community-based institutions, in addition to the rebuilding of their local social institutions, to support their well-being and educational and economic opportunities. For these groups, recovery policy should be viewed from a development perspective, rather than the more conventional compensation model in which people are paid for their losses. At a minimum, several areas that could be considered include:

- Instituting economic development programs that incorporate significant job-retraining and skill-building, as well as home-ownership development programs;
- Establishing community-based or school-based case managers to assist people in managing transitions to new schools and new communities;
- Creating a mechanism for community engagement, such as the “sweat equity” community development groups that proliferated in the 1980s and 1990s in successful urban reclamation projects, in which community residents could actively participate in rebuilding their homes and social institutions;
- Maximizing Medicaid and S-CHIP enrollment among eligible families and children, so as to cover a greater proportion of the uninsured children;
- Assuring ongoing mental health supports for children and caregivers.

The scope of Katrina’s impact is difficult to measure. Estimates of the storm’s financial costs may soar in to the hundreds of billions of dollars, yet they still fail to account for the personal and social consequences of such a massive disaster – the hundreds of thousands of lives that were turned upside down, many of which remain unsettled today. Extrapolating from this study of Mississippi residents, in which over 1 in 3 children are either suffering from behavioral or emotional problems since the hurricane or are disengaged from schools, there may be as many as 30,000 children across the Gulf and displaced to other states who are suffering similar problems. And however much that is a present problem, it represents a future problem as well, of unknown magnitude. Every day in which a child remains without a stable home, community, or school may correlate with some future educational, economic, or social deficit. The price to pay to remedy the situation may present itself today, but the cost of delaying that payment may stretch before us for years to come.

The media spotlight is long gone from the Gulf, but this study – and others – clearly show that the crisis in the Gulf remains serious, auguring grim consequences for people – especially children – who need relief and responsible societal responses right now.

Appendix 1: Data Tables

Table A1. Fieldwork Snapshot and Survey Response Rates

	M-CAFH	L-CAFH
# sampled household units	2684	1,000
# destroyed units / vacant units under construction	(298)	
# ineligible households (e.g., empty lots, no eligible respondent in household)	(147)	
# vacant/abandoned units	(540)	
# units substituted because originally sampled unit vacant / not home	0	601
Total in sampling frame	1699	1,601
# units no contact (not home / no eligible adult present/not approached)	935	781
# units engaged/invited to participate	764	820
<i># units refused</i>	60	111
<i># units unavailable</i>	128	43
<i># units interviewed</i>	576	665
Response rate (interviewed / total sampling frame)	34%	41%
Cooperation rate (interviewed / engaged)	75%	81%
Refusal rate (refused / engaged)	8%	14%

* p<0.05 ** p<0.01 *** p<0.001

Table A2. Displacement History and Return Plans

	Mississippi				Louisiana	
	TOTAL	FEMA trailer sites	Private trailer sites	Impact areas	FEMA trailer sites	Private trailer sites
Total (n)	576	169	164	243	338	163
Average tenure in current residence (# weeks)	63.0	25.4	28.4	112.8	12.2	12.1
Average # times moved since Katrina	2.9	3.0	2.7	2.8	3.1	4.2
Evacuated home before the hurricane? (%)***	67.8	55.4	59.5	82.6	52.7	76.1
In same zip code as address before hurricane (%)	50.8	27.8	24.4	84.7		
Current housing type (%)	100	29.3	28.5	42.2	50.6	24.4 ^a
Return/relocation plans (%)***	428	134	154	140	330	152
<i>Households planning to return to former neighborhood (%)</i>	53.0	47.0	45.5	67.1	51.2	56.6
<i>Households planning to relocate elsewhere (%)</i>	40.2	46.3	47.4	26.4	36.7	30.9
<i>Households unsure of future plans (%)</i>	6.8	6.7	7.1	6.4	12.1	12.5

^a 19.0 % of L-CAFH respondents were located in hotels and 6.2% were in employer-sponsored sites

* p<0.05 ** p<0.01 *** p<0.001

Table A3. Household Composition

	Mississippi				Louisiana	
	TOTAL	FEMA trailer sites	Private trailer sites	Impact areas	FEMA trailer sites	Private trailer sites
Total households (n)	576	169	164	243	338	163
Total number of household members	1520	434	482	604	784	522
<i>Total number of adults 18 years of age or older</i>	1053	288	296	469	563	335
<i>Total number of children 0-5 years old</i>	162	58	57	47	74	63
<i>Total number of children 6-17 years old</i>	305	88	129	88	147	124
<i>Total number of children living elsewhere</i>	47	13	16	18	26	13
Average household size	2.6	2.6	2.9	2.5	2.3	3.2
<i>Mean number of adults >=18 yo in household</i>	1.8	1.7	1.8	1.9	1.7	2.1
<i>Mean number of children in household, 0-5 years old</i>	0.3	0.3	0.3	0.2	0.2	0.4
<i>Mean number of children in household, 6-11 years old</i>	0.2	0.2	0.4	0.2	0.2	0.3
<i>Mean number of children in household, 12-17 years old</i>	0.3	0.3	0.4	0.2	0.2	0.4
Households with children (%)**	39.6	42.0	48.8	31.7	34.9	54.0
<i>Mean number of children in household, <18 years old</i>	2.1	2.1	2.4	1.8	1.9	2.1
<i>Mean number of children in household, 0-5 years old</i>	0.7	0.8	0.7	0.6	0.6	0.7
<i>Mean number of children in household, 6-11 years old</i>	0.6	0.5	0.8	0.5	0.5	0.6
<i>Mean number of children in household, 12-17 years old</i>	0.7	0.8	0.8	0.6	0.7	0.8
Caregiver composition in households with children (n)	227	71	79	77	142	105
<i>Mother & father (or two parents) present (%)</i>	46.3	35.2	45.6	57.1	34.5	44.8
<i>Mother only (%)</i>	26	35.2	29.1	14.3	47.2	32.4
<i>Father only (%)</i>	7.5	8.5	5.1	9.1	10.6	5.7
<i>Grandparents only (%)</i>	8.4	7	7.6	10.4	5.6	5.7
<i>Other (%)</i>	11.9	14.1	12.7	9.1	2.1	11.4

* p<0.05 ** p<0.01 *** p<0.001

Table A4. Place of Origin of Adult Respondent***

	Mississippi				Louisiana	
	TOTAL	FEMA trailer sites	Private trailer sites	Impact areas	FEMA trailer sites	Private trailer sites
Total (n)	576	169	164	243	338	163
Born in state [MS or LA] (%)	42.9	54.9	49.4	29.9	85.3	81.8
Born elsewhere in US (%)	50.8	39.0	43.8	64.1	13.8	17.6
Foreign-born (%)	6.3	6.1	6.9	6.1	0.9	0.6

* p<0.05 ** p<0.01 *** p<0.001

Table A5. Sociodemographics of Household Respondent

	Mississippi				Louisiana	
	TOTAL	FEMA trailer sites	Private trailer sites	Impact areas	FEMA trailer sites	Private trailer sites
TOTAL (n)	576	169	164	243	338	163
Gender						
<i>Female (%)</i>	57.6	55.0	63.4	55.6	57.4	66.9
<i>Male (%)</i>	42.4	45.0	36.6	44.4	42.6	33.1
Race/Ethnicity***	572	167	164	241		
<i>Black / African-American (%)</i>	24.8	49.7	33.5	1.7	79.1	48.6
<i>White (%)</i>	67.3	41.3	56.7	92.5	13.5	46.5
<i>Latino (%)</i>	3.5	4.2	3.7	2.9	3.7	4.9
<i>Other (%)</i>	4.4	4.8	6.1	2.9	3.7	0.0
Legal marital status	568	165	163	240		
<i>Married (%)</i>	34.2	17.0	31.9	47.5	24.4	32.7
<i>Single (%)</i>	21.1	40.6	19.0	9.2	43.5	31.4
<i>Separated (%)</i>	5.5	7.9	6.8	2.9	2.8	4.5
<i>Divorced (%)</i>	21.8	22.4	23.9	20.0	21.3	18.6
<i>Widowed (%)</i>	9.5	6.7	11.0	10.4	8.0	12.8
<i>Living as married (%)</i>	7.9	5.5	7.4	10.0		
Partnered status***	569	166	163	240	324	156
<i>Partnered (married or living with partner) (%)</i>	50.3	33.1	49.7	62.5	33.9	45.5
<i>Non-partnered (%)</i>	49.7	66.9	50.3	37.5	66.1	54.5

* p<0.05 ** p<0.01 *** p<0.001

	Mississippi				Louisiana	
	TOTAL	FEMA trailer sites	Private trailer sites	Impact areas	FEMA trailer sites	Private trailer sites
Annual Household Income***	571	167	163	241	338	163
<i>Less than \$10,000 (%)</i>	21.5	33.5	24.5	11.2	47.1	33.8
<i>\$10,000 - \$19,999 (%)</i>	38.5	38.3	38.7	38.6	25.2	23.4
<i>\$20,000 - \$34,999 (%)</i>	17.2	15.6	19.6	16.6	13.9	22.1
<i>\$35,000 - \$49,999 (%)</i>	8.8	4.2	8.6	12.0	5.9	9.7
<i>Greater than \$50,000 (%)</i>	11.4	6.6	6.8	17.8	3.1	7.1
<i>Don't know / refused</i>	2.6	1.8	1.8	3.7	4.9	3.9

* p<0.05 ** p<0.01 *** p<0.001

Table A6. Household Income Sources, Pre & Post Katrina

	Mississippi				Louisiana	
	TOTAL	FEMA trailer sites	Private trailer sites	Impact areas	FEMA trailer sites	Private trailer sites
TOTAL (n)	576	169	164	243	338	163
Salary / wages from F/T or P/T job						
<i>Before Katrina (%)</i>	71.0	75.3	72.6	67.1	55.6	66.7
<i>After Katrina (%)</i>	55.4	53.6	59.9	53.7	36.3	49.1
Occasional work / day labor						
<i>Before Katrina (%)*</i>	18.7	24.1	12.3	19.4	22.5	19.5
<i>After Katrina (%)*</i>	24.6	31.7	22.2	21.2	11.3	24.7
Public assistance (WIC, TANF)						
<i>Before Katrina (%)**</i>	16.3	15.0	24.1	12.0	26.4	28.8
<i>After Katrina (%)</i>	30.0	27.0	31.5	31.0	37.1	40.5
Alimony or child support						
<i>Before Katrina (%)**</i>	7.9	10.6	11.5	3.8	4.3	10.2
<i>After Katrina (%)*</i>	6.8	7.1	11.3	3.8	2.7	6.5
Social Security, SSI, SSDI						
<i>Before Katrina (%)*</i>	35.8	28.7	34.4	41.6	35.5	45.6
<i>After Katrina (%)**</i>	37.9	28.0	37.2	45.0	34.6	44.9
Household salary before/after the hurricane***	572	166	163	243	331	159
<i>Maintained salary (%)</i>	50.7	48.8	56.4	48.2	29.6	43.4
<i>Lost salary(%)</i>	17.1	25.9	14.1	13.2	24.8	21.4
<i>Gained salary(%)</i>	2.3	4.8	1.8	0.8	6.3	4.4
<i>Never had salary(%)</i>	10.3	8.4	12.3	10.3	23.6	17.0
<i>Not in labor force (retired, disabled, student)(%)</i>	19.6	12.1	15.3	27.6	15.7	13.8

* p<0.05 ** p<0.01 *** p<0.001

Table A7. Household Salary Status

	Mississippi				
	TOTAL	Maintained Salary	Lost Salary	Gained Salary	Never Had Salary
TOTAL (n)	460	290	146	138	176
Public assistance (WIC, TANF)					
<i>Before Katrina (%)***</i>	17.3	12.8	19.4	38.5	31.0
<i>After Katrina (%)</i>	32.5	29.5	37.9	30.8	39.0
Income level***	450	285	97	12	56
<i>Less than \$10,000 (row %)</i>	100	31.6	35.8	7.4	25.3
<i>\$10,000 - \$19,999 (row %)</i>	100	62.1	22.3	2.4	13.3
<i>\$20,000 - \$34,999 (row %)</i>	100	79.3	13.4	0.0	7.3
<i>Greater than \$35,000 (row %)</i>	100	81.3	14.0	0.9	3.7
Income level among those earning a salary before the hurricane***	382	285	97		
<i>Less than \$10,000 (row %)</i>	100	46.9	53.1		
<i>\$10,000 - \$19,999 (row %)</i>	100	73.6	26.4		
<i>\$20,000 - \$34,999 (row %)</i>	100	85.5	14.5		
<i>Greater than \$35,000 (row %)</i>	100	85.3	14.7		

* p<0.05 ** p<0.01 *** p<0.001

Table A8. Children’s Health – Weighted

	Mississippi				Louisiana	
	TOTAL	FEMA trailer sites	Private trailer sites	Impact areas	FEMA trailer sites	Private trailer sites
TOTAL randomly sampled children (n)	470	151	186	133	221	187
Medical homes <i>(personal MD or RN who knows your child and his/her medical history)</i>						
<i>Lost a medical home since Katrina</i>	18.4	23.0	14.3	18.9	51.4	38.9
<i>Maintained medical home since Katrina</i>	60.8	53.2	65.7	62.3	22.0	43.1
<i>Gained a medical home since Katrina</i>	3.2	5.8	1.7	2.5	1.9	3.6
<i>Didn’t have med. home pre- or post-Katrina</i>	17.7	18.0	18.3	16.4	24.8	14.4
Prevalence of diagnosed chronic conditions						
<i>ASTHMA (%)</i>	19.1	18.7	21.9	15.8	12.7	25.0
<i>DIABETES (%)</i>	1.1	0.7	0.0	3.0	0.5	0.6
<i>DEPRESSION or ANXIETY problem (%)**</i>	11.8	3.6	19.7	9.9	7.3	13.0
<i>BEHAVIORAL or CONDUCT problem (%)</i>	23.0	20.7	27.3	19.6	17.3	21.3
<i>AUTISM (%)</i>	0.0	0.0	0.0	0.0	0.0	2.8
<i>DEVELOPMENTAL DELAY or PHYSICAL IMPAIRMENT (%)*</i>	10.6	4.0	19.3	6.0	10.0	15.3
<i>LEARNING DISABILITIES (%)</i>	14.6	16.2	15.4	12.0	21.5	26.2
Children with ANY chronic condition (%)	42.2	41.1	49.2	33.8	33.6	43.3
Children who currently need or use medicine (%)**	31.2	16.6	42.0	32.6	19.4	43.9
Children who, since the hurricane, needed immediate care for illness or injury (%)	38.5	35.4	40.6	38.9	15.1	25.3
Place service received						
<i>ER (%)</i>	14.4	21.6	15.8	5.7	6.3	6.4
<i>hospital or clinic (%)</i>	35.0	39.2	32.9	34.0	43.8	63.8
<i>shelter (%)</i>					6.3	10.6
<i>mobile unit/temporary or free clinic (%)</i>	6.1	0.0	10.5	5.7	9.4	0.0
<i>Private MD (%)</i>	15.6	21.6	21.1	1.9	9.4	10.6
<i>VA/Military (%)</i>	1.1	0.0	0.0	3.8		
<i>other (%)</i>	11.1	3.9	15.8	11.3	9.4	2.1
<i>No service received (%)</i>	16.7	13.7	4.0	37.7	15.6	6.4

* p<0.05 ** p<0.01 *** p<0.001

	Mississippi				Louisiana	
	TOTAL	FEMA trailer sites	Private trailer sites	Impact areas	FEMA trailer sites	Private trailer sites
Among children who needed medications in past 3 months, percent who DID NOT receive all their prescribed medicine (%)	16.0	13.0	17.7	16.3	15.6	21.9
Children's Overall Health Status						
<i>Excellent (%)</i>	38.0	37.6	35.2	42.4	36.8	27.4
<i>Very Good (%)</i>	23.3	19.5	26.9	22.7	21.8	29.6
<i>Good (%)</i>	28.1	32.2	26.9	25.0	28.2	29.6
<i>Fair (%)</i>	10.2	10.7	9.9	9.9	8.2	10.2
<i>Poor (%)</i>	0.4	0.0	1.1	0.0	5.0	3.2
Percent of children who needed to see a specialist in the past 12 months	23.6	18.5	25.0	27.5	20.7	32.4
Percent of children who were seen by a specialist in past 12 months	88.8	77.8	97.8	85.3	61.1	88.9
Dental services for children 6 - 17 yo*						
<i>Saw a dentist within last year(%)</i>	55.0	47.3	56.8	60.0	53.7	60.3
<i>Saw a dentist last year(%)</i>	21.7	23.7	20.1	22.2	25.1	19.0
<i>Last saw a dentist over 2 years ago(%)</i>	11.5	8.6	13.7	11.1	7.4	9.9
<i>Has never seen a dentist (%)</i>	11.8	20.4	9.4	6.7	13.7	10.7
Children who need specialized medical equipment (%)	12.4	13.4	15.5	6.6	15.3	25.1
<i>Among those, percent for whom it was a "big" or "moderate" problem to get equipment</i>	47.1	42.1	71.4	9.1	69.0	47.8
Percent of households with children in which ANY child had emotional or behavioral difficulties he or she didn't have before the hurricane (%)* <i>Unweighted</i>	53.0	45.3	65.3	47.4	36.4	45.0
<i>Very sad or depressed (%)</i>	65.5	67.9	61.2	69.4		
<i>Felt nervous or afraid (%)</i>	62.3	75.9	57.1	58.3		
<i>Had problems sleeping (%)*</i>	51.3	65.5	38.8	57.1		

* p<0.05 ** p<0.01 *** p<0.001

	Mississippi				Louisiana	
	TOTAL	FEMA trailer sites	Private trailer sites	Impact areas	FEMA trailer sites	Private trailer sites
<i>Had problems getting along with other children (%)</i>	37.2	39.3	28.6	47.2		
<i>Had other problems (%)</i>	31.8	25.9	34.0	33.3		
Saw provider for emotional or behavioral difficulties (%)	29.1	32.1	29.2	26.5		

^a Results are weighted by the number of children in a household. Actual sample sizes are 228 in Mississippi and 252 in Louisiana.

Notes

- 1 In NSCH, the question wording for health service utilization is “During the past 12 months...” Because the potential time frame for reported need is longer than M-CAFH or L-CAFH’s time frame of 3 months, a reader would expect to see greater potential need expressed over a year rather than 3 months.

Table A9. Children’s Chronic Conditions Before/After the Hurricane – Weighted

	Mississippi				NSCH
	TOTAL	FEMA trailer sites	Private trailer sites	Impact areas	
TOTAL randomly sampled children (n)	470	151	186	133	
Prevalence of diagnosed chronic conditions					
<i>ASTHMA (%)</i>	19.1	18.7	21.9	15.8	
<i>Before the hurricane</i>	15.9	17.3	17.5	12.0	12.8
<i>Diagnosed after the hurricane</i>	3.2	1.3	4.4	3.8	
<i>DIABETES (%)</i>	1.1	0.7	0.0	3.0	
<i>Before the hurricane</i>	0.7	0.7	0.0	1.5	0.3
<i>Diagnosed after the hurricane</i>	0.4	0.0	0.0	1.5	
<i>DEPRESSION or ANXIETY problem (%)**</i>	11.8	3.6	19.7	9.9	
<i>Before the hurricane</i>	2.4	0.7	3.8	2.3	4.8
<i>Diagnosed after the hurricane*</i>	9.4	2.8	15.9	7.6	
<i>BEHAVIORAL or CONDUCT problem (%)</i>	23.0	20.7	27.3	19.6	
<i>Before the hurricane</i>	10.0	9.7	11.5	8.3	8.1
<i>Diagnosed after the hurricane</i>	12.8	11.0	15.9	10.6	
<i>AUTISM (%)</i>	0.0	0.0	0.0	0.0	
<i>Before the hurricane</i>	0.0	0.0	0.0	0.0	0.2
<i>Diagnosed after the hurricane</i>	0.0	0.0	0.0	0.0	
<i>DEVELOPMENTAL DELAY or PHYSICAL IMPAIRMENT (%)*</i>	10.6	4.0	19.3	6.0	
<i>Before the hurricane**</i>	7.8	4.0	15.5	1.5	3.4
<i>Diagnosed after the hurricane</i>	2.8	0.0	3.9	4.5	

* p<0.05 ** p<0.01 *** p<0.001

Table A10. Adults' Chronic Conditions Before/After the Hurricane

	Mississippi			
	TOTAL	FEMA trailer sites	Private trailer sites	Impact areas
TOTAL (n)	576	169	164	243
Prevalence of diagnosed chronic conditions				
<i>Heart disease (%)</i>	16.8	14.4	15.9	19.0
<i>Before the hurricane</i>	14.8	13.2	14.0	16.5
<i>Diagnosed after the hurricane</i>	1.2	0.6	0	2.5
<i>Hypertension (%)</i>	41.8	39.2	41.5	43.8
<i>Before the hurricane</i>	29.5	26.5	30.5	31.0
<i>Diagnosed after the hurricane</i>	10.3	11.4	7.9	11.2
<i>Diabetes (%)</i>	16.3	18.6	14.2	16.3
<i>Before the hurricane</i>	13.0	15.6	11.1	12.5
<i>Diagnosed after the hurricane</i>	2.5	1.8	2.5	2.9
<i>Asthma or lung disease (%)</i>	19.1	16.8	22.0	18.7
<i>Before the hurricane</i>	14.2	12.6	16.5	13.7
<i>Diagnosed after the hurricane</i>	3.7	3.6	3.7	3.7
<i>Cancer (%)*</i>	11.5	10.2	6.7	15.7
<i>Before the hurricane</i>	10.1	9.6	4.9	14.0
<i>Diagnosed after the hurricane</i>	1.0	0.6	1.2	1.2
<i>Physical disability (%)</i>	27.7	21.7	29.0	31.0
<i>Before the hurricane</i>	20.2	15.7	22.8	21.5
<i>Diagnosed after the hurricane</i>	6.3	5.4	4.3	8.3

* p<0.05 ** p<0.01 *** p<0.001

Table A11. Caregiver Health by Housing Type

	Mississippi				Louisiana	
	TOTAL	FEMA trailer	Private trailer	Impact areas	FEMA trailer	Private trailer
TOTAL (n)	227	71	79	77	117	86
Caregivers' Overall Health Status	225	69	79	77	117	85
<i>Excellent (%)</i>	15.1	11.6	12.7	20.8	14.5	11.8
<i>Very Good (%)</i>	14.2	15.9	7.6	19.5	24.8	18.8
<i>Good (%)</i>	37.3	42.0	36.7	33.8	29.1	23.5
<i>Fair (%)</i>	23.1	20.3	30.4	18.2	21.4	31.8
<i>Poor (%)</i>	10.2	10.1	12.7	7.8	10.3	31.8
How well coping with daily parenting demands	217	68	76	73	108	83
<i>Somewhat or very well (%)</i>	86.6	91.2	79.0	90.4	88.0	92.8
<i>Not very well or not at all (%)</i>	12.9	7.4	21.1	9.6	11.1	7.2
<i>Don't know / refused (%)</i>	0.5	1.5	0.0	0.0	0.9	0.0
Mean mental health summary score	223	68	79	76	113	83
<i>Low mental health sores, below mcs 42.0 (%)</i>	61.9	64.7	67.1	54.0	54.0	60.2
<i>Very low mental health sores, below mcs 37.0 (%)</i>	44.4	45.6	53.2	34.2	38.9	39.8
<i>Mean score (US population mean = 50)</i>	38.2	37.8	36.8	40.0	39.7	41.0
Mean physical health summary score	223	68	79	76		
<i>Very low physical health sores, below pcs 45.0 (%)</i>	37.7	30.9	48.1	32.9	31.0	43.4
<i>Mean score (US population mean = 50)</i>	47.6	49.4	44.3	49.5	49.5	44.1
Health conditions						
<i>Heart disease (%)</i>	10.7	10.1	13.9	7.8	9.4	5.9
<i>Hypertension (%)</i>	30.7	29.0	35.4	27.3	25.0	31.4
<i>Diabetes (%)</i>	13.4	13.0	13.9	13.2	10.0	14.9
<i>Asthma or lung disease (%)*</i>	14.2	13.0	21.5	7.8	19.7	18.6
<i>Cancer (%)</i>	8.4	7.3	7.6	10.4	4.3	4.7
<i>Physical disability (%)*</i>	19.6	13.0	29.5	15.6	17.8	24.6
Percent with ANY chronic health condition	52.9	46.4	59.5	52.0	49.6	59.3
Health care source prior to Katrina**	224	69	78	77	115	86
<i>Clinic in health center or hospital (%)</i>	32.1	31.9	34.6	29.9	54.8	33.7
<i>Private doctor (%)</i>	46.0	40.6	48.7	48.1	25.2	45.4

* p<0.05 ** p<0.01 *** p<0.001

	Mississippi				Louisiana	
	TOTAL	FEMA trailer	Private trailer	Impact areas	FEMA trailer	Private trailer
<i>Emergency Room (%)</i>	13.4	18.8	11.5	10.4	13.0	10.5
<i>Other (%)</i>	0.5	0.0	0.0	1.3	7.0	9.3
<i>None (%)</i>	7.6	7.3	5.1	10.4	0.0	1.2

* p<0.05 ** p<0.01 *** p<0.001

Table A12. Caregiver Health by Gender

	Mississippi			Louisiana		
	All Caregiver	Female Caregiver	Male Caregiver	All Caregiver	Female Caregiver	Male Caregiver
TOTAL (n)	225	169	56	250	202	48
Caregivers' Overall Health Status						
<i>Excellent (%)</i>	15.1	11.8	25.0	13.3	12.0	18.8
<i>Very Good (%)</i>	14.2	12.4	19.6	21.8	22.0	20.8
<i>Good (%)</i>	37.3	40.2	28.6	27.8	28.5	25.0
<i>Fair (%)</i>	23.1	24.9	17.9	27.4	27.5	27.1
<i>Poor (%)</i>	10.2	10.7	8.9	9.7	10.0	8.3
How well coping with daily parenting demands	220	164	56	250	202	48
<i>Somewhat or very well (%)</i>	86.4	86.0	87.5	88.0	86.8	93.0
<i>Not very well or not at all (%)</i>	13.2	14.0	10.7	11.6	13.2	4.7
<i>Don't know / refused (%)</i>	0.45	0.0	1.8	0.4	0.0	2.3
Mean mental health summary score	223	167	56	241	196	45
<i>Low mental health scores, below mcs 42.0 (%)</i>	61.9	64.1	55.4	60.2	63.8	44.4
<i>Very low mental health scores, below mcs 37.0 (%)</i>	44.4	46.7	37.5	41.5	44.4	28.9
<i>Mean score (US population mean = 50)</i>	38.2	38.1	38.7	39.5	38.5	43.8
Mean physical health summary score						
<i>Very low physical health scores, below pcs 45.0 (%)</i>	37.7	38.3	35.7	33.2	35.2	24.4
<i>Mean score (US population mean = 50)</i>	47.6	46.7	50.3	48.3	47.7	51.2
Caregiver health conditions	225	169	56	250	202	48
<i>Heart disease (%)</i>	10.7	10.1	12.5	7.3	7.5	6.3
<i>Hypertension (%)</i>	30.7	31.4	28.6	29.6	29.7	29.2
<i>Diabetes (%)</i>	13.4	13.0	14.6	11.4	12.7	5.9
<i>Asthma or lung disease (%)</i>	14.2	16.0	8.9	19.4	20.5	14.6
<i>Cancer (%)</i>	8.4	8.9	7.1	4.1	5.0	0.0
<i>Physical disability (%)</i>	19.6	19.6	19.6	18.9	18.9	18.9
Percent with ANY chronic condition	52.9	55.6	44.6	53.8	54.7	50.0
Health care source prior to Katrina*	224	168	56			

* p<0.05 ** p<0.01 *** p<0.001

	Mississippi			Louisiana		
	All Caregiver	Female Caregiver	Male Caregiver	All Caregiver	Female Caregiver	Male Caregiver
<i>Clinic in health center or hospital (%)</i>	31.7	33.3	26.8	45.1	44.7	46.8
<i>Private doctor (%)</i>	46.0	49.4	35.7	35.8	36.7	31.9
<i>Emergency Room (%)</i>	13.4	9.5	25.0	11.8	12.6	8.5
<i>Other (%)</i>	1.3	0.6	3.6	6.5	5.0	12.8
<i>None (%)</i>	7.6	7.1	8.9	0.8	1.0	0.0

* p<0.05 ** p<0.01 *** p<0.001

Table A13. Insurance Status

	Mississippi				Louisiana	
	TOTAL	FEMA trailer	Private trailer	Impact areas	FEMA trailer	Private trailer
Caregivers' Insurance Status*						
TOTAL (n)	576	169	164	243	338	163
<i>Uninsured (%)</i>	40.8	43.2	42.1	38.3	48.8	39.3
<i>Medicaid or CHIP (%)</i>	16.0	17.8	17.7	13.6	26.6	19.0
<i>Medicare (%)</i>	14.4	7.7	12.8	20.2	7.7	11.0
<i>Private (%)</i>	18.1	17.8	14.0	21.0	9.2	16.6
<i>Other (%)</i>	8.7	10.7	10.4	6.2	4.4	9.2
<i>Don't know / refused (%)</i>	2.1	3.0	3.1	0.8	3.3	4.9
Children's Insurance Status (Weighted)						
TOTAL (n)	467	150	184	133	220	187
<i>Uninsured (%)</i>	20.3	16.7	23.4	20.3	10.0	3.2
<i>Medicaid or CHIP (%)</i>	65.5	70.7	69.0	54.9	81.4	70.1
<i>Private (%)</i>	8.4	6.0	5.4	15.0	4.6	9.6
<i>VA/Military</i>	1.1	0.0	0.5	3.0		
<i>Other (%)</i>	4.1	6.7	1.1	5.3	2.3	14.4
<i>Don't know / refused (%)</i>	0.6	0.0	0.5	1.5	1.8	2.7

* p<0.05 ** p<0.01 *** p<0.001

Table A14. Stability and Security

	Mississippi				Louisiana	
	TOTAL	FEMA trailer	Private trailer	Impact areas	FEMA trailer	Private trailer
School-related issues (n)	288	84	120	84	139	120
<i>Average # months children 6-17 yo out of school post-Katrina</i>	1.1	1.0	1.1	1.2	1.0	1.2
<i>Children missing 10+ days of school in any given month (%)*</i>	35.5	25.6	43.5	34.1		
<i>Children successfully completing the school year (%)</i>	87.9	89.3	88.3	85.7		
<i>Not completing school year OR missed 10+ days (%)</i>	39.9	29.6	45.7	41.7		
Safety and security						
<i>(Caregiver only, N=)</i>	210	59	76	75	125	91
<i>% of caregivers who definitely or somewhat agree that there are people in their neighborhood who would be a bad influence on their children***</i>	71.0	84.8	77.6	53.3	69.9	81.7
<i>% of caregivers who believe their children are never or only sometimes safe in their community***</i>	52.3	61.5	64.1	32.0	48.1	51.2
<i>% of caregivers who believe their children are never or only sometimes safe in school**</i>	21.3	38.3	17.1	12.3	37.0	8.8
<i>(all adults, N=)</i>	566	166	159	241	314	154
<i>Adults afraid to walk around neighborhood at night (%)***</i>	51.9	63.3	59.1	39.4	51.0	59.7

* p<0.05 ** p<0.01 *** p<0.001

Table A15. School related issue by child's age group

	Mississippi			Louisiana	
	TOTAL	6-11 years	12-17 years	6-11 years	12-17 years
School-related issues (n)	288	127	161	134	189
<i>Average # months children out of school post- Katrina</i>	1.1	1.1	1.1	1.0	1.3
<i>The month of returned school (%)</i>					
<i>September 2005</i>	28.6	30.7	27.0	56.3	57.5
<i>October 2005</i>	50.8	47.4	53.4	26.6	24.0
<i>November 2005</i>	11.1	10.5	11.5	6.3	6.6
<i>December 2005</i>	4.2	4.4	4.1	3.9	4.2
<i>January 2006</i>	4.2	5.3	3.4	5.5	4.8
<i>February 2006</i>	1.2	1.8	0.7	1.6	3.0
<i>Children successfully completing school year (%)*</i>	87.9	92.9	83.9		
<i>Children missing 10+ days of school in any given month (%)*</i>	35.5	28.7	41.2		
<i>Not completing school year OR missed 10+ days (%)*</i>	39.9	32.0	46.4		

* p<0.05 ** p<0.01 *** p<0.001

Table A16. Employment Status & Economic Resources of Respondent

	Mississippi				Louisiana	
	TOTAL	FEMA trailer	Private trailer	Impact areas	FEMA trailer	Private trailer
TOTAL (n)	576	169	164	243	329	155
Was caregiver/adult respondent...***	571	165	164	242	329	155
<i>Employed prior to Katrina, still employed (%)</i>	20.5	21.8	17.7	21.5	8.4	14.8
<i>Employed prior to Katrina, presently unemployed (%)</i>	38.5	46.7	43.3	29.8	48.5	40.0
<i>Homemaker (%)</i>	6.0	3.0	7.3	7.0	3.0	3.9
<i>Unemployed prior to Katrina, looking for work (%)</i>	2.6	3.6	4.9	0.4	7.2	2.6
<i>Unemployed prior to Katrina, not looking for work (%)</i>	1.1	0.0	0.0	2.5	2.7	1.3
<i>Disabled prior to Katrina, unable to work (%)</i>	14.4	14.6	11.0	16.5	15.4	23.9
<i>Student (%)</i>	1.23	0.6	2.4	0.8	0.6	1.3
<i>Retired (%)</i>	12.1	4.9	12.2	16.9	8.4	9.0
<i>Other (%)</i>	3.7	4.9	1.2	4.6	5.7	3.2
Adults with access to savings or checking account (%)***	70.7	51.2	66.5	87.1	62.2	71.8
Adults with access to useable credit card (%)***	30.2	16.3	17.1	48.8	22.9	25.2

* p<0.05 ** p<0.01 *** p<0.001

Table A17. Service Needs

AREA	Mississippi				Louisiana			
	Percent who needed help or assistance in [AREA] in past 3 mo (n)	Among those WITH NEED, percent who received services in [AREA] in past 3 mo	Among those WITH NEED, percent for whom no progress in [AREA] has been made or the problems have gotten worse		Percent who needed help or assistance in [AREA] in past 3 mo (n)	Among those WITH NEED, percent who received services in [AREA] in past 3 mo	Among those WITH NEED, percent for whom no progress in [AREA] has been made or the problems have gotten worse	
			among who received services	among who didn't receive services			among who received services	among who didn't receive services
Financial matters	62.3 (358)	26.9	41.5	69.5	72.5 (474)	62.0	37.6	73.7
Household items or clothing	46.2 (265)	41.7	24.0	53.3	59.8 (390)	54.5	23.2	63.0
Food, groceries, or meals	44.3 (254)	61.5	20.0	66.3	51.9 (337)	63.8	26.0	58.8
Emotional or psychological difficulties	38.2 (219)	35.9	32.1	69.3	37.4 (242)	28.9	33.3	72.5
Transportation	30.5 (175)	24.6	34.2	77.7	43.1 (279)	37.4	30.6	76.7
Employment, including job training	23.6 (135)	26.0	29.4	65.6	31.0 (201)	23.9	23.9	71.4
Legal matters	22.0 (126)	15.5	33.3	78.9	22.1 (144)	17.0	41.7	88.4
Education or school services	14.6 (82)	24.7	10.0	77.1	20.3 (132)	23.5	10.0	69.4
Child care	10.4 (54)	15.4	12.5	88.6	12.9 (81)	17.5	28.6	72.1
Problems with alcohol or drugs	4.9 (28)	22.2	33.3	68.2	2.6 (17)	18.8	0.0	69.2

Note: The denominator for the first column regarding need is all households (576), whereas subsequent columns refer to the number with a specific need. For example, the denominator for financial matters' service is 358, for service received for household items is 265, etc.

* p<0.05 ** p<0.01 *** p<0.001