

## 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**

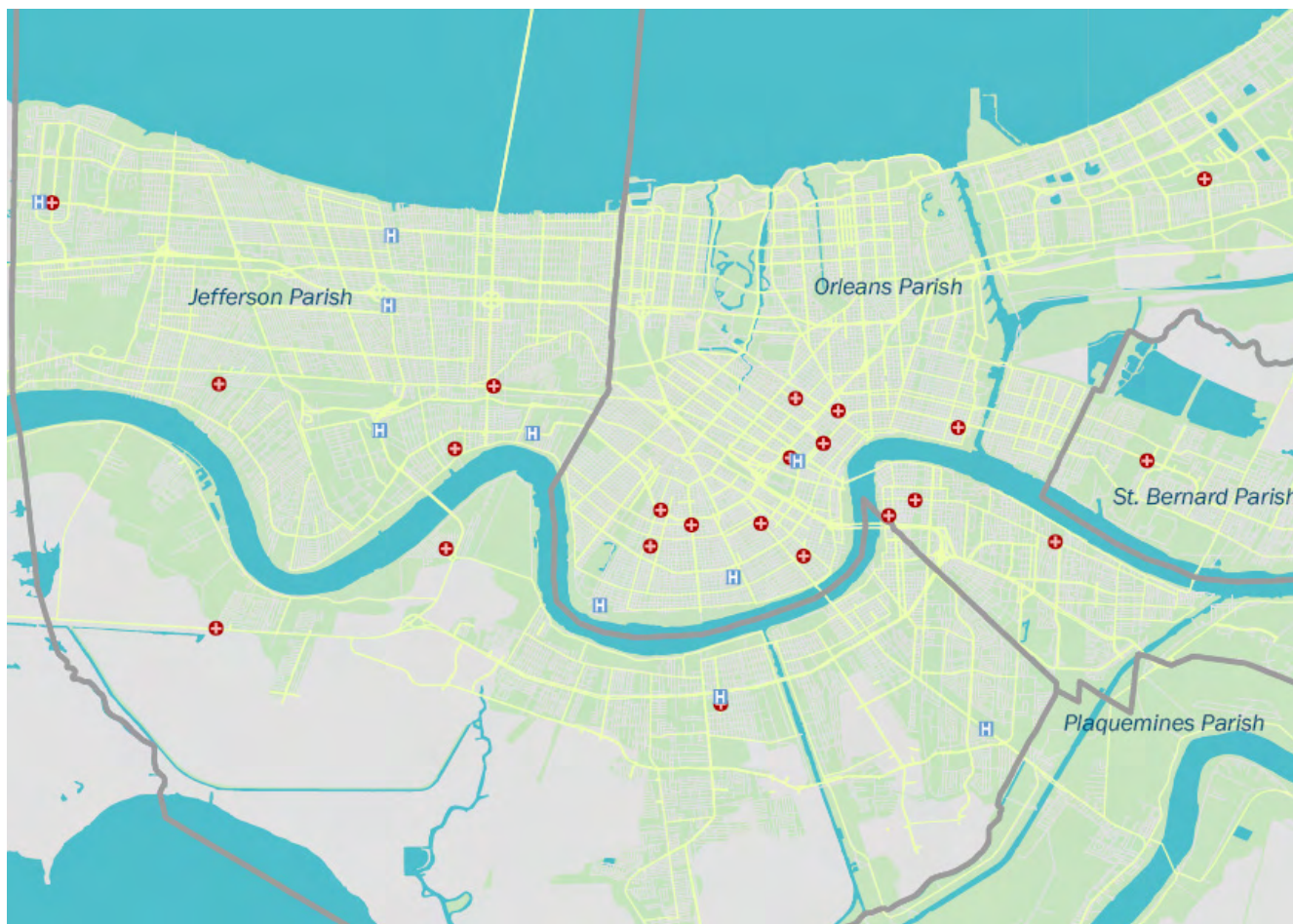


Table A1. Hospitals Operating in Region 1 as of Fall 2006

		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
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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%

**Table B3. Chronic Conditions Among Adults, by Selected Characteristics**  
(Percentages in Rows)

	Unweighted N	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>	1504	41%	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	Pre-Katrina	Post-Katrina	Pre-Katrina	Post-Katrina
<b>East Jefferson General Hospital</b>	20%	24%	19%	21%	21%	26%	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%	3%	3%	5%	7%	4%	5%	5%	5%	3%	4%	3%	3%	7%	9%
<b>Charity Hospital (MCLNO)</b>	9%	1%	22%	1%	4%	^	2%	^	25%	1%	5%	^	22%	3%	5%	^	2%	^	24%	1%
<b>Memorial/Baptist</b>	5%	^	4%	1%	6%	^	5%	^	6%	----	4%	1%	2%	----	7%	^	4%	1%	1%	----
<b>Ochsner</b>	18%	22%	11%	14%	22%	27%	23%	27%	12%	16%	12%	13%	8%	13%	22%	26%	23%	25%	10%	13%
<b>Touro</b>	7%	11%	5%	11%	8%	11%	5%	7%	12%	21%	4%	4%	4%	6%	8%	12%	8%	11%	8%	11%
<b>Tulane</b>	2%	4%	3%	5%	2%	3%	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%	13%	13%	16%	8%	11%	12%	14%	13%	14%	10%	11%	17%	25%
<b>Don't Know</b>	7%	10%	3%	9%	9%	10%	2%	5%	4%	9%	30%	32%	18%	29%	4%	4%	5%	8%	----	1%

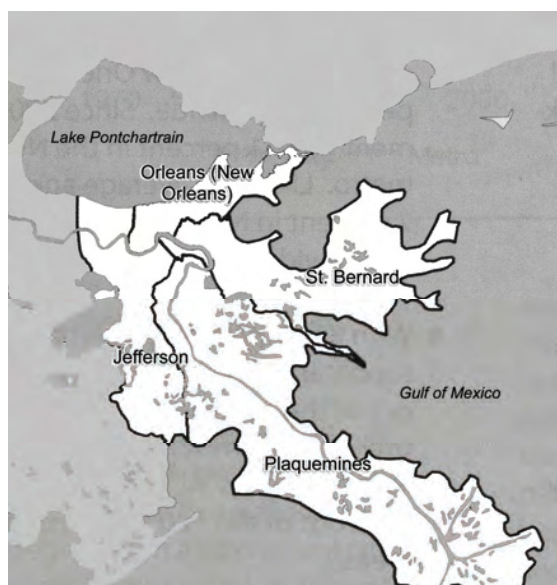
NOTES: ^ denotes a value of less than 0.5 percent. ---- denotes no respondents selected this answer as a response.

<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>.