An Assessment of Inpatient Psychiatric Beds in the New Orleans Metropolitan Area

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*Note—An earlier version of this report dated February 22, 2010 was released. This report uses updated U.S. Census Bureau population estimates; the rest of the content is the same.
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EXECUTIVE SUMMARY

This report assesses hospital-based mental health services in the greater New Orleans metropolitan area, in terms of inpatient psychiatric beds available to the general public in Region 1 Louisiana (Orleans, Jefferson, St. Bernard, and Plaquemines Parishes).

In late August 2005, Hurricane Katrina was the deadliest hurricane along the U.S. Gulf Coast in seven decades. Studies completed as soon as five months after the hurricane estimated that almost half of the residents from the New Orleans metropolitan area affected by Katrina had some type of anxiety mood disorder, and 30% experienced post-traumatic stress disorder. However, treatment for many of the Katrina survivors with mental illnesses received far less attention than individuals with other medical conditions.

As most hospitals in Orleans Parish closed in the aftermath of Katrina, mental health services and psychiatric beds were severely limited in New Orleans immediately after the hurricane. However, four and a half years after Katrina, the capacity for inpatient psychiatric beds remains well below pre-Katrina levels in the New Orleans metropolitan area. With the closure of the New Orleans Adolescent Hospital (NOAH) in 2009, fewer psychiatric beds are currently available in the city. In addition, recent media accounts about mental health in New Orleans report that the general mental health of residents in the community is getting worse.

When comparing pre-Katrina and post-Katrina inpatient psychiatric beds in Region 1 Louisiana, significant decreases (34% to 54%) for child/adolescent, adult, and geriatric beds still exist from pre-Katrina levels. When comparing adult inpatient psychiatric beds in New Orleans and Region 1 Louisiana to other comparable cities (St. Louis, MO, Memphis, TN, Washington, D.C., Cleveland, OH, and Atlanta, GA), all the other cities have considerably more adult inpatient psychiatric beds per 100,000 people. Child/adolescent and geriatric psychiatric beds did not decrease as much as adult beds in New Orleans, but Medicaid and Medicare resources may be reasons why beds are available for children and the elderly. Uninsured adults with mental illnesses, however, have the fewest resources available to them.

In addition, significant disparities in mental illness were observed by race, income, and education among residents from New Orleans after Katrina. Individuals most vulnerable to mental illness (uninsured and indigent) lack the resources for mental health services in the region.

Furthermore, both suicide and attempted suicide rates in New Orleans have increased in the past year, and the current suicide rate in Orleans Parish (15.8 per 100,000 population) is well above the national suicide rate in the U.S (11.16 per 100,000 population).

While community-based outpatient services have provided resources for residents, individuals with serious mental illnesses (those suicidal or experiencing acute psychiatric episodes) need inpatient psychiatric beds. Even with the growing amount of community-based outpatient services, the mental health infrastructure in New Orleans will not be adequate for the needs of the community until a sufficient number of inpatient psychiatric beds are added in the city.
INTRODUCTION

This report assesses current mental health services in the greater New Orleans metropolitan area,\(^1\) in terms of inpatient psychiatric beds available to the general public, four years after Hurricane Katrina. While partnerships in community mental health services have provided outpatient resources for residents in the New Orleans metropolitan area (BHAN, 2009; REACH NOLA, 2009), hospital-based mental health services are still inadequate. New Orleans lacks sufficient numbers of mental health service providers and inpatient psychiatric beds, leaving those most vulnerable (indigent and uninsured) without access to mental health services. In addition, significant disparities in mental illness are prevalent among lower-income and less-educated individuals.

Mental Health

The Surgeon General’s report on mental health (Mental Health, 1999) emphasizes that

‘mental health’ and ‘mental illness’ are not polar opposites but may be thought of as points on a continuum. *Mental health* is a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with adversity…*Mental illness* is the term that refers collectively to all diagnosable mental disorders. Mental disorders are health conditions that are characterized by alterations in thinking, mood, or behavior (or some combination thereof) associated with distress and/or impaired functioning…Alterations in thinking, mood, or behavior contribute to a host of problems—patient distress, impaired functioning, or heightened risk of death, pain, disability, or loss of freedom (American Psychiatric Association, 1994).

Background

In late August 2005, Hurricane Katrina hit the U.S. Gulf Coast as the “deadliest hurricane in the United States in seven decades and the most expensive natural disaster in US history” (Kessler et al., 2008). Early representative epidemiological studies after the hurricane estimated that almost half of the pre-hurricane residents of the New Orleans metropolitan area affected by Katrina had an anxiety mood disorder five months after the hurricane, with 30% of those from the New Orleans area estimated to have post-traumatic stress disorder (PTSD) (Galea et al., 2007; Kessler et al., 2008). However, treatment needs for many of the Katrina survivors with mental disorders received far less attention than those with other acute medical conditions, despite the fact that the widespread experience of trauma may have triggered numerous new cases while worsening pre-existing mental disorders (Wang et al., 2007). While federal grants eventually addressed some mental health services in New Orleans, barriers to providing and obtaining mental health services continue to exist today (GAO, 2009).

\(^{1}\) Greater New Orleans metropolitan area defined according to DHH Region 1 parishes (Orleans, Jefferson, St. Bernard, and Plaquemines Parishes).
Mental Health Services Pre-Katrina

Even before Hurricane Katrina, residents along the U.S. Gulf Coast were “among the sickest, poorest, and most underserved in the country” (Wang et al., 2007). The mental health system in New Orleans was essentially a “two-tier” system, where the insured population had access to six private community hospitals and clinics, while the poor and uninsured were cared for mainly through the Medical Center of Louisiana at New Orleans (Charity and University Hospitals) and clinics associated with the state’s Office of Mental Health (Calderon-Abbo, 2008). Psychiatric beds at Charity Hospital were on seven units: “four for general psychiatry, one for co-occurring disorders, one medical detoxification unit, and a crisis intervention unit” (Calderon-Abbo, 2008). Charity’s large psychiatric unit was the main facility utilized by mental health patients, but it remains closed since Hurricane Katrina.

Mental Health Services Post-Katrina (2009)

As most hospitals in Orleans Parish closed in the aftermath of Katrina, mental health services and psychiatric beds were severely limited in New Orleans immediately after the hurricane. However, the capacity for inpatient psychiatric beds\(^2\) remains well below pre-Katrina levels in New Orleans and Region 1 Louisiana (Orleans, Jefferson, St. Bernard, and Plaquemines Parishes)\(^3\) more than four years after Hurricane Katrina.

In addition, recent media accounts from *The Times-Picayune*, *The Washington Times*, and CNN about mental health in New Orleans report that the general mental health of residents in the community is getting worse (Barrow, 2009; Hudson, 2009; Reckdahl, 2009; Smith, 2009). With the recent closure of the state-run New Orleans Adolescent Hospital (NOAH), the number of inpatient psychiatric beds in New Orleans leaves residents with fewer local mental health options for hospital-based services. The Louisiana Department of Health and Hospitals (DHH), in its ongoing plan to transform the public mental health system in the state, is shifting services “at a more efficient cost to the state by merging its inpatient mental health operations at the New Orleans Adolescent Hospital into Southeast Louisiana Hospital” in Mandeville, Louisiana (Louisiana DHHb, 2009). In addition, the DHH is moving “closer to the evidence-supported models employed by other states, which have reduced their reliance on inpatient services while increasing family contact in the community and home setting” (Louisiana DHHb, 2009).

While additional outpatient mental health services is welcome in New Orleans, outsourcing inpatient psychiatric beds, from Region 1 to Southeast Louisiana Hospital in Region 9, (about 40 miles from New Orleans on the north shore of Lake Pontchartrain) creates other problems for residents in the New Orleans metropolitan area. For example, while children and adolescents are transported to Southeast Louisiana hospital or to beds in other parts of Louisiana, their parents often do not have the transportation means to accompany their children. Separation from the caregiver can traumatize children, especially during a time of crisis when they need their parents for emotional support.

\(^2\) Refer to the Data section of this report for detailed information.
\(^3\) Region 1 Louisiana parishes are defined by Office of Public Health Administrative Regions (Louisiana DHHa, 2006).
This report assesses barriers to mental health care for residents in the New Orleans area and compares the inpatient psychiatric bed capacity of New Orleans and Region 1 before and after Hurricane Katrina. In addition, this report analyzes the number of adult inpatient psychiatric beds in the New Orleans metropolitan area to other comparable cities.

**METHODOLOGY**

For New Orleans and Region 1, both pre-Katrina and post-Katrina data on inpatient psychiatric bed capacity are provided (refer to Appendix A and B for complete list of hospitals and beds). Each facility in Region 1 was contacted from September to December 2009 for updates of any recent inpatient bed changes.

**Comparable Cities**

Cities with similar social, economic, housing, and demographic characteristics were chosen for this report (American FactFinder; U.S. Census Bureau, 2009 July 1). Thus, along with the New Orleans metropolitan area, data is provided for the cities of St. Louis, MO, Memphis, TN, Washington, D.C., Cleveland, OH, and Atlanta, GA. Inpatient psychiatric capacity for other cities includes beds only from hospitals within proper city limits (not their surrounding metropolitan areas). In addition, data was collected for the number of inpatient psychiatric beds available at state-sponsored psychiatric hospitals (if one was located within city limits), private psychiatric hospitals, and general acute care hospitals that may have psychiatric units (refer to Appendix C for complete lists of hospitals and beds).

In determining the number of inpatient psychiatric beds available at each hospital/facility, the health departments and offices of mental/behavioral health of each city or state were contacted; their representatives then provided a list of hospitals in the selected city or the number of psychiatric beds in each hospital. Because data on inpatient psychiatric beds tended to be from 2007, each hospital was contacted from September to December 2009 to determine the current number of inpatient psychiatric beds. If a hospital provided data for both licensed beds and staffed beds, the number of staffed beds was used for this report. Finally, to account for the differences in population between each city so that the final data is not skewed, the number of beds per 100,000 people was determined. In the final data analyses for the number of beds in each city and the number of beds per 100,000 people, information from state-sponsored psychiatric hospitals in cities outside of Louisiana were excluded for several reasons: these psychiatric hospitals tend to be regional hospitals that attract residents from other areas of the state, and they may have beds specifically for forensic cases. Only beds that are available resources to the general public were included in the final data analysis.

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4 Data provided by Sarah Hoffpauir, LCSW-BACS (Program Director of Behavioral Health Action Network at the Louisiana Public Health Institute)

5 Licensed beds refers to the maximum number of beds authorized by the appropriate state licensing agency or regulated by a federal agency; staffed beds refer to the total number of beds set up, staffed, and in use at the end of a reporting period. The number of staffed beds should be less than or equal to the number of licensed beds (State of Tennessee Department of Health, unpublished data, 2009).

6 Number of beds per 100,000 population = (# beds available ÷ resident population) x 100,000.
DATA

Percentage changes of each type of psychiatric bed (before and after Hurricane Katrina) in Region 1 are as follows:

- Child and adolescent beds decreased by 27.6%
- Adult beds decreased by 54.7%
- Geriatric beds decreased by 41.6%
- Medical detoxification beds decreased by 2.9%

Each type of psychiatric bed in the region is significantly fewer than pre-Katrina, with the exception of medical detox beds. In addition, pre-Katrina, adult psychiatric beds comprised more than half (54%) of the psychiatric beds available in the New Orleans metro area, but post-Katrina, adult psychiatric beds consist of only 42% of all inpatient psychiatric beds available in the New Orleans metro area, even though middle-aged individuals from 40-64 years exhibited the highest levels of serious mental illness (31%) of any adult age group post-Katrina (Sastry & Vanlandingham, 2009). Medicaid and Medicare may be reasons why child/adolescent beds or geriatric beds are available to those populations; for example, the Louisiana DHH announced an expansion of inpatient mental health beds at Children’s Hospital in New Orleans last year (Washington, S.E., personal communication, September 29, 2009; DHHc, 2009). However, adults with mental illnesses have the fewest resources available to them.

Figure 1 illustrates the number and type of inpatient psychiatric beds that were available in Region 1 before Hurricane Katrina and how many are currently available in the region.

**Figure 1**

<table>
<thead>
<tr>
<th>Type of Bed</th>
<th># of beds</th>
<th>pre-Katrina</th>
<th>post-Katrina</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child/Adol</td>
<td>76</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Adult</td>
<td>298</td>
<td>135</td>
<td></td>
</tr>
<tr>
<td>Geriatric</td>
<td>113</td>
<td>66</td>
<td></td>
</tr>
<tr>
<td>Detox</td>
<td>68</td>
<td>66</td>
<td></td>
</tr>
</tbody>
</table>

Region 1 Psychiatric Inpatient Capacity
Figure 2 compares the number of adult psychiatric inpatient beds (and adult beds per 100,000 people) available in New Orleans and Region 1 to other cities. (For other types of beds, refer to the Appendices for complete data).

**Figure 2**

**ADULT Inpatient Psychiatric Bed Capacity in New Orleans and Other Cities**

<table>
<thead>
<tr>
<th>Region or City</th>
<th># adult beds</th>
<th>adult beds/100k</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Orleans LA</td>
<td>60</td>
<td>16.9</td>
<td>354,850</td>
</tr>
<tr>
<td>Region 1 MO</td>
<td>135</td>
<td>15.7</td>
<td>859,789</td>
</tr>
<tr>
<td>St. Louis TN</td>
<td>165</td>
<td>46.3</td>
<td>356,730</td>
</tr>
<tr>
<td>Memphis TN</td>
<td>425</td>
<td>63.5</td>
<td>669,651</td>
</tr>
<tr>
<td>Washington DC</td>
<td>310</td>
<td>52.4</td>
<td>591,833</td>
</tr>
<tr>
<td>Cleveland OH</td>
<td>109</td>
<td>25.1</td>
<td>433,748</td>
</tr>
<tr>
<td>Atlanta GA</td>
<td>307</td>
<td>57.1</td>
<td>537,968</td>
</tr>
</tbody>
</table>

**ANALYSIS**

The data collected confirm that New Orleans and Region 1 have fewer adult inpatient psychiatric beds (even after adjusting adult beds per 100,000 population) than the other selected cities. St. Louis, Memphis, Washington, D.C., and Atlanta all have more than 45 adult beds per 100,000 people; the only city that comes close to New Orleans in terms of adult psychiatric beds is Cleveland, but the Cleveland Clinic Health System will be adding psychiatric beds in 2010 (Karchmer, D., personal communication, September 22, 2009; Omslaer, J., personal communication, September 15, 2009).

**Previous Research**

In addition, while other cities have more psychiatric beds than the New Orleans metro area, they do not have to contend with large populations of residents experiencing hurricane related mental illnesses. Previous studies of mental health trends after Hurricane Katrina find significant levels of mental health related illnesses:
• When comparing mental illness and suicide trends post-Katrina to an earlier survey before Hurricane Katrina, estimates of serious mental illness almost doubled from 6.1% to 11.3%, and mild-moderate mental illness increased from 9.7% to 19.9% among individuals from heavily affected Katrina areas (Kessler, Galea, Jones, & Parker, 2006).

• In a representative sample of residents from the New Orleans metro area, 49.1% were estimated to have prevalence of some anxiety-mood disorder, and 30.3% had estimated prevalence of post-traumatic stress disorder within one year after the hurricane (Galea et al., 2007).

• Prevalence of suicidal ideation (thoughts of committing suicide) actually increased from pre-hurricane residents of the New Orleans metro area almost two years after Hurricane Katrina (Kessler et al., 2008).

• For students surveyed in the 2005-2006 and 2006-2007 school years from heavily affected Louisiana Parishes (Orleans, Plaquemines, St. Bernard, and St. John the Baptist), 49.1% of the students met the cut-off score for a mental health referral in the first year, and 41.6% met the cut-off score for a mental health referral the following year (Osofsky, H.J., Osofsky, J.D, Kronenberg, Brennan, & Hansel, 2009).

Suicides and Attempted Suicides

While information from studies measuring rates of mental illness in New Orleans after 2007 is not currently available, the number of suicides in New Orleans has increased from previous post-Katrina years. In 2009, there were 56 suicides compared to 31 in 2006. Even when accounting for population increase, the number of suicides and suicide attempts increased in 2009 from the previous year (refer to Figures 3 and 4 for data). For example, in Orleans Parish, suicides per 100,000 people increased from 14.6 in 2008 to 15.8 in 2009 and suicide attempts per 100,000 people increased from 74.6 in 2008 to 83.4 in 2009. In addition, the current suicide rate (15.8 suicides per 100,000 people) in Orleans Parish is well above the national suicide rate recorded in 2006 for the United States, at both the crude rate of 11.16 suicides per 100,000 population or age-adjusted rate of 10.96 suicides per 100,000 population (CDCa, 2009; CDCb, 2009).

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7 Data for suicides in Orleans Parish were provided by John Gagliano, Deputy Coroner. Data for attempted suicides in Orleans Parish were provided by Barbara Ireland and Jullette Saussy, MD, New Orleans EMS.

8 Suicides per 100,000 people = (number of suicides ÷ resident population) x 100,000. Population estimates from 2006 to 2008 use U.S. Census Bureau data (2009, March 19; 2009, December 22). The 2009 estimate uses recently released U.S. Census data (U.S. Census Bureau, 2010, March 23), which is consistent with GNOCDC population estimates for August 2009 between 350,000-360,000 (Plyer, A., personal communication, October 26, 2009) and GCR population estimate for July 2009 of 354,045 (Rigamer, G. personal communication, January, 20, 2010).
Data for attempted suicides in 2006 were not available for the month of January.
Disparities in Mental Illness

Among a representative sample of pre-Katrina residents of New Orleans, Sastry and VanLandingham (2009) found high rates of mental illness one year after the hurricane, where 19% suffered from mild-moderate mental illness, and 20% suffered from serious mental illness; thus, a total of 39% of the sample had some type of DSM-IV (Diagnostic and Statistical Manual of Mental disorders, Fourth Edition, 1994) anxiety or mood disorder one year after Hurricane Katrina. In addition, significant disparities in mental illness were observed by race, income, and education (Sastry & VanLandingham, 2009):

- Race—31% of Blacks were classified with probable serious mental illness compared to 6% of Whites/other
- Income—those in the bottom quartile had 38% serious mental illness compared to 15% for those in the top three income quartiles
- Education—30% of individuals with a high school education or less had serious mental illness compared to 15% for those with more than a high school education

In addition, Wang et al. (2007) asked adult survivors of Hurricane Katrina whether “since the hurricane they received professional counseling for ‘problems with your emotions, nerves, or mental health.’” Among those who did not use mental health services but felt that they might have needed to see a professional since the hurricane, respondents identified several reasons for not seeking mental health care; these reasons included low need (e.g. the problem would get better by itself or was not severe), lack of financial means, available treatments, personnel, or transportation, or because of the presence of stigma or desire to handle the problem on their own (Wang et al., 2007).

Mental Health Providers

The lack of mental health professionals in the New Orleans area also intensifies the mental health problems post-Katrina. For example, Calderon-Abbo (2008) identifies several reasons for regional personnel shortage including

- a lack of affordable or available housing, additional sources of employment competition that lure away lower-paid staff, and the perceived state of New Orleans—the daunting nature of cleanup, the lack of high-quality schooling, the high crime rate, the loss of social and physical infrastructure on which labor markets are based, the uncertainty of federal or city help, and the pull-out of home insurance companies and steep increases in existing insurance premiums (p. 307).

In addition, the mental health of mental health providers is uncertain. At the former New Orleans Adolescent Hospital (NOAH), a significant number of providers were themselves victims or traumatized, and providers were “burned out and physically or emotionally sick” which increased absenteeism (Calderon-Abbo, 2008). Furthermore, expansion of inpatient services at NOAH had been delayed “by a lack of staff or by ‘virtual staff,’ who are present on paper but physically absent while on personal, medical, or family leave” (Calderon-Abbo, 2008).
CRIMINALIZATION OF MENTAL ILLNESS

With scarce hospital beds available, the Orleans Parish Prison has become the last resort of mental health services for mentally ill patients. As the largest inpatient mental health provider in New Orleans, with 60 prison psychiatric beds at full capacity, the Orleans Parish Prison and the New Orleans Police Department (NOPD) are undertaking cost-shift burdens to the city. In New Orleans, mental health services have gone from “de-institutionalization to re-incarceration” (Tebo, C., personal communication, October 9, 2009). Families of mentally ill patients will call the New Orleans Police Department (NOPD) because hospitals release the patients, and families are concerned for the safety and well-being of the mentally ill patient and for others.

The volunteer-based NOPD crisis unit handles 68% of approximately 250 calls the NOPD receives every month for mental health emergency cases (Tebo, C., personal communication, October 9, 2009). In 2009, the crisis unit received 1,537 calls for service with 1,493 dispositions—a 14.5% increase in calls and a 13.1% increase in dispositions from 2008 (refer to Table 1 for details). However, the lack of inpatient psychiatric beds in New Orleans often leaves these patients waiting in backed-up emergency rooms for days. In addition, the number of PEC (Physician Emergency Commitment) and OPC (Order of Protective Custody) commitments, for individuals unwilling to come in for a voluntary psychiatric evaluation, have remained steady or increased in 2009.

Table 1: NOPD Crisis Unit Commitments and Dispositions

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of Calls for Service: 1342</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Commissions:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>21</td>
<td>176</td>
</tr>
<tr>
<td>OPC</td>
<td>214</td>
<td>215</td>
</tr>
<tr>
<td>PEC</td>
<td>167</td>
<td>185</td>
</tr>
<tr>
<td>Voluntary</td>
<td>682</td>
<td>827</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1084</strong></td>
<td><strong>1403</strong></td>
</tr>
<tr>
<td><strong>Dispositions from 01/01/08 to 12/31/08:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children's Hospital</td>
<td>60</td>
<td>63</td>
</tr>
<tr>
<td>East Jefferson</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>MHSD Clinic</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>No Transport</td>
<td>244</td>
<td>256</td>
</tr>
<tr>
<td>Ochsner East Bank</td>
<td>22</td>
<td>20</td>
</tr>
<tr>
<td>Ochsner West Bank</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Shelter</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Touro</td>
<td>40</td>
<td>13</td>
</tr>
<tr>
<td>Tulane (pediatric)</td>
<td>75</td>
<td>86</td>
</tr>
<tr>
<td>University Hospital</td>
<td>849</td>
<td>1022</td>
</tr>
<tr>
<td>West Jefferson</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1320</strong></td>
<td><strong>1493</strong></td>
</tr>
</tbody>
</table>

10 Data provided by Cecile Tebo, NOPD Mental Health Crisis Unit Coordinator
CONCLUSION

While the Louisiana Department of Health and Hospitals is implementing a program of outpatient mental health services (Louisiana DHHb, 2009), those patients suffering from serious mental illnesses are at the most risk with the shortage of inpatient psychiatric beds in New Orleans and Region 1 Louisiana. Community-based services provide resources for individuals suffering from mild mental illness, but when residents are suicidal or experience an acute psychiatric episode, they need inpatient psychiatric beds. Even with the growing number of community-based outpatient services, the mental health infrastructure in New Orleans will not be adequate for the needs of the community until a sufficient number of inpatient psychiatric beds are added in the city. However, the number of inpatient psychiatric beds in Region 1 Louisiana has decreased in the past year with the closings of NOAH in Orleans Parish and the Behavioral Hospital of Kenner and Genesis Specialty Hospital’s behavioral unit in Jefferson Parish.

Furthermore, the New Orleans area currently has more inpatient psychiatric beds in the private sector than in the public hospitals, leaving inadequate beds for the indigent and uninsured populations. With disparities in mental illness among minorities, lower-income, and less educated individuals (Sastry & VanLandingham, 2009), the most vulnerable populations in New Orleans do not have the resources to seek mental health services.

Even with the growing amount of community-based outpatient services, the mental health infrastructure in New Orleans will not be adequate for the needs of the community until a balance of inpatient, outpatient, and crisis unit services are reached.
REFERENCES


U.S. Census Bureau, Population Division. (2009, March 19). Table. Annual estimates of the resident population for counties of Louisiana: April 1, 2000 to July 1, 2008 (CO-


# APPENDIX A

## Inpatient Psychiatric Capacity for Region 1 Louisiana (Pre-Katrina)

<table>
<thead>
<tr>
<th>Parish</th>
<th>Resident Population&lt;sup&gt;11&lt;/sup&gt;</th>
<th>Hospital/Facility</th>
<th>Type of Bed</th>
<th># total beds/100,000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Child</td>
<td>Adol</td>
</tr>
<tr>
<td>Orleans</td>
<td>461,600</td>
<td>VA</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Community Care</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kindred Acute Care</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Touro</td>
<td>29</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DePaul Tulane</td>
<td>20</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td></td>
<td>New Orleans Adolescent Hospital (NOAH)</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Methodist</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lakeland Hospital</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bywater-St. Claude</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Charity Hospital</td>
<td></td>
<td>77</td>
</tr>
<tr>
<td>Orleans</td>
<td></td>
<td>Subtotal Orleans</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>St. Bernard</td>
<td>65,376</td>
<td>Chalmette Medical Center</td>
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<tr>
<td>Plaquemines</td>
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</tr>
<tr>
<td>Jefferson</td>
<td>452,116</td>
<td>River Oaks Hospital</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>East Jefferson General Hospital</td>
<td></td>
<td>22</td>
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<tr>
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<td></td>
<td>West Jefferson Medical Center</td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Ochsner</td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Advance Care</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Generations KRMC</td>
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<tr>
<td>Jefferson</td>
<td></td>
<td>Subtotal Jefferson</td>
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</tr>
<tr>
<td>Region 1</td>
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<td>Total Region 1 Louisiana</td>
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<sup>11</sup> Pre-Katrina resident population data use 2004 estimates (U.S. Census Bureau, 2009 March 19).
APPENDIX B
Inpatient Psychiatric Capacity for Region 1 Louisiana in 2009

<table>
<thead>
<tr>
<th>Parish</th>
<th>Resident Population</th>
<th>Hospital/Facility</th>
<th>Type of Bed</th>
<th># total beds/100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Child</td>
<td>Adol</td>
</tr>
<tr>
<td>Orleans</td>
<td>354,850</td>
<td>University Hospital-LSU HCSD</td>
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<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LSU HSC Calhoun campus (DePaul)</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td></td>
<td>New Orleans Adolescent Hospital (NOAH)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Community Care Hospital</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Office of Addictive Disorders (OAD) at Odyssey House</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Psychiatric Pavilion Hospital</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Louisiana Specialty Hospital</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Children's Hospital-Calhoun campus</td>
<td>5</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kindred Hospital New Orleans</td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subtotal Orleans</td>
<td>5</td>
<td>24</td>
</tr>
<tr>
<td>St. Bernard</td>
<td>40,655</td>
<td>East Jefferson General Hospital</td>
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<td></td>
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<td>West Jefferson Medical Center</td>
<td>16</td>
<td></td>
</tr>
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<td></td>
<td></td>
<td>River Oaks Hospital</td>
<td>8</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Behavioral Hospital of Kenner</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Tulane Lakeside Hospital</td>
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</tr>
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<td></td>
<td></td>
<td>Oceans Behavioral Hospital-GNO</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Genesis Specialty Hospital</td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ochsner Hospital</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subtotal Jefferson</td>
<td>8</td>
<td>18</td>
</tr>
<tr>
<td>Jefferson</td>
<td>443,342</td>
<td>Region 1</td>
<td>13</td>
<td>42</td>
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<td></td>
<td>Total Region 1 Louisiana</td>
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</tr>
</tbody>
</table>

---

12 Post-Katrina resident population data use 2009 estimates for Orleans, St. Bernard, Plaquemines, and Jefferson Parishes (U.S. Census Bureau, 2010 March 23).
13 Kindred Hospital is planning to add 12 long-term acute care (LTAC) geriatric psychiatric beds in March 2010, pending completion of renovations (Regan, J., personal communication, February 11, 2010).
# APPENDIX C

## Inpatient Psychiatric Capacity in Other Cities

<table>
<thead>
<tr>
<th>City</th>
<th>Resident Population $^{14}$</th>
<th>Hospital/Facility $^{15}$</th>
<th>Type of Bed</th>
<th># total beds/100,000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Louis, MO</td>
<td>356,730</td>
<td><strong>State Psychiatric Hospital</strong></td>
<td>Child</td>
<td>Adult</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Metropolitan St. Louis Psychiatric Center (MPC)</td>
<td>87</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>*St. Louis Psychiatric Rehabilitation Center $^{16}$</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Hawthorn Children's Psychiatric Hospital</td>
<td>8</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td>8</td>
<td>44</td>
</tr>
</tbody>
</table>

**Other Hospitals**

<table>
<thead>
<tr>
<th>Hospital/Facility</th>
<th>Type of Bed</th>
<th># total beds/100,000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barnes-Jewish Hospital</td>
<td>36</td>
<td>10</td>
</tr>
<tr>
<td>Cardinal Glennon Children's Hospital</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Forest Park Hospital</td>
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<td>20</td>
</tr>
<tr>
<td>Kindred Hospital-St. Louis</td>
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<td></td>
</tr>
<tr>
<td>Rehabilitation Institute of St. Louis</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>St. Alexius Hospital</td>
<td>77</td>
<td>77</td>
</tr>
<tr>
<td>St. Louis Children's Hospital</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>St. Louis University Hospital</td>
<td>24</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>165</td>
<td>46</td>
</tr>
</tbody>
</table>

---

$^{14}$ Resident population data for Memphis, Washington, D.C., Cleveland, and Atlanta use 2008 estimates (U.S. Census Bureau, 2009 July 1). Data for St. Louis use accepted challenges to 2008 population estimates (U.S. Census Bureau, 2009 December 22). 2009 population estimates for cities will be released by the U.S. Census Bureau later this year.

$^{15}$ Hospitals marked with a * are state-sponsored psychiatric hospitals. While these beds are listed in the Appendix, they are excluded in the data section and calculations for # total beds/100,000 population for reasons discussed in the methodology section of this report.

$^{16}$ St. Louis Psychiatric Rehabilitation Center also has 195 forensic psychiatric beds.
<table>
<thead>
<tr>
<th>City</th>
<th>Resident Population</th>
<th>Hospital/Facility</th>
<th>Type of Bed</th>
<th># total beds/100,000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memphis, TN</td>
<td>669,651</td>
<td><strong>State Psychiatric Hospital</strong></td>
<td>Child</td>
<td>Adult</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Memphis Mental Health Institute</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Other Hospitals</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Community Behavioral Health</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lakeside Behavioral Health System</td>
<td>25</td>
<td>265</td>
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<tr>
<td></td>
<td></td>
<td>Baptist Memorial Hospital-Collierville</td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Baptist Memorial Hospital-Memphis</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Baptist Memorial Hospital for Women</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Delta Medical Center</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Methodist Le Bonheur Germantown Hospital</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Methodist North Hospital</td>
<td>0</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Methodist South Hospital</td>
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</tr>
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<td></td>
<td></td>
<td>Methodist University Hospital</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Regional Medical Center at Memphis</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>St. Francis Hospital</td>
<td>35</td>
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</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td>60</td>
<td>425</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>City</th>
<th>Resident Population</th>
<th>Hospital/Facility</th>
<th>Type of Bed</th>
<th># total beds/100,000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington, D.C.</td>
<td>591,833</td>
<td><strong>State Psychiatric Hospital</strong></td>
<td>Child</td>
<td>Adult</td>
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<tr>
<td></td>
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<td><em>St. Elizabeth's Hospital’s</em></td>
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</tr>
<tr>
<td></td>
<td></td>
<td><strong>Other Hospitals</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Psychiatric Institute of Washington (PIW)</td>
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<td>24</td>
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</table>

17 St. Elizabeth’s Hospital also has 200 forensic psychiatric beds.
<table>
<thead>
<tr>
<th>City</th>
<th>Resident Population</th>
<th>Hospital/Facility</th>
<th>Type of Bed</th>
<th># total beds/100,000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>State Psychiatric Hospital</td>
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<td>60</td>
</tr>
<tr>
<td></td>
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<tr>
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<td></td>
<td>Adult</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Geriatric</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Detox</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other Hospitals</td>
<td>Child</td>
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</tr>
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<td></td>
<td></td>
<td>Adol</td>
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<tr>
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<td></td>
<td></td>
<td>Adult</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Geriatric</td>
<td>0</td>
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<tr>
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<td></td>
<td></td>
<td>Detox</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Total</td>
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</tr>
<tr>
<td>Cleveland, OH</td>
<td>433,748</td>
<td>Cleveland Clinic Child Hospital for Rehabilitation</td>
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</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>Kindred Hospital-Cleveland</td>
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<td>Kindred Hospital-Cleveland Gateway</td>
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<tr>
<td>University Hospitals of Cleveland</td>
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</tr>
<tr>
<td>UH-Rainbow Babies and Children's Hospital</td>
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</tr>
<tr>
<td>St. Vincent Charity Hospital</td>
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<td>0</td>
<td></td>
</tr>
<tr>
<td>MetroHealth Medical Center</td>
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</tr>
<tr>
<td>Total</td>
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18 Northcoast Behavior Healthcare Hospital also has 40 forensic psychiatric beds.
<table>
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<th>Hospital/Facility</th>
<th>Type of Bed</th>
<th># total beds/100,000 population</th>
</tr>
</thead>
<tbody>
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<td>Atlanta, GA</td>
<td>537,958</td>
<td>Anchor Hospital</td>
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<td></td>
<td></td>
<td>Laurel Heights</td>
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</tr>
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<td>Peachford Behavioral Health System</td>
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<td>148</td>
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<td>Hillside</td>
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<td>Atlanta Medical Center</td>
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<td>17</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Children's Healthcare of Atlanta-Egleston</td>
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<td></td>
<td>Children's Healthcare of Atlanta-Hughes</td>
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</tr>
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<td>Children's Healthcare of Atlanta-Scottish</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Emory University Hospital</td>
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</tr>
<tr>
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<td></td>
<td>Emory University Hospital Midtown</td>
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<td>Wesley Woods Hospital (Emory)</td>
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<td></td>
<td>Wesley Woods Long Term Acute Care Hospital</td>
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<td></td>
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<td></td>
</tr>
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<td></td>
<td>Piedmont Hospital</td>
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<td></td>
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<td>St. Joseph's Hospital of Atlanta</td>
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<td></td>
</tr>
<tr>
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<td></td>
<td>Select Specialty Hospital-Atlanta</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Shepherd Center</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
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<td><strong>10</strong></td>
<td><strong>307</strong></td>
<td><strong>97</strong></td>
</tr>
</tbody>
</table>