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TMC HEALTH POLICY PROGRAM

REQUEST:

What is the recommended goal or accepted standard for bed-type to population ratio for:

- Short Term Acute
- Long Term Acute
- Long Term Subacute
- Inpatient Adult Residential Treatment/supported housing
- Partial hospitalization/Day Treatment

And how do the top 25 largest metropolitan areas do compare to those standards?

What is the recommended goal or accepted standard for:

- Crisis Stabilization and Assessment capacity
- Outpatient (routine and intensive) capacity
- Anything that compares capacity of LMHAs

And how do the top 25 largest metropolitan areas do compare to those standards?

RESPONSE:

The minimum number of public psychiatric beds deemed necessary for adequate psychiatric services is: 50/100,000 population.[1,2] According to Torrey et al, Texas is at 12/100,000.[1]

In 2010, no state achieved the 50 beds per 100,000 goal, and 15 states provided fewer than ten beds per 100,000 people.[2]

What is the correct number of beds per 100,000 population?

There are no federal guidelines, answering this question depends on several factors[1]:

1. The number of seriously mentally ill individuals who are potential candidates for hospital admission.
2. The number of seriously mentally ill individuals who actually need hospital admission.
3. How long the person remains in the hospital.
4. Short stay beds and long stay beds
5. How the beds are financed

A study by La et al, discusses the service mix idea: when an increase in bed capacity finally reduces wait time to get into a bed. The authors model how many beds would be needed to reduce wait time for a state psychiatric bed to below 24 hours.[3]

Dramatic increases in state hospital beds would be needed to significantly decrease wait times for psychiatric beds and improve access to inpatient treatment[3,4]:

- Adding 24 beds increased the number of admissions by 9% (115.2 patients) and decreased average wait time by 6% (slightly less than four hours).
- Reducing average wait times to less than two days required increasing beds in the study hospital by 84%.
- Reducing average wait times to less than one day required increasing beds in the study hospital by 165%.

An AHRQ Technical Brief from 2014 has some good info on the nature of psychiatric care including the issue of hospitalization in a context, and covers literature on what types of care reduces hospitalizations[5]:
Key factors in decreasing the likelihood of subsequent psychiatric admissions include:

- Rendering sufficient inpatient care to address adequately the acute presenting problem and stabilize the patient's psychiatric status
- Ensuring an adequate discharge plan and delivery of sufficient support services to transition psychiatric care successfully from an inpatient to an outpatient setting (e.g., discharge services, follow-up calls, short-term case management, bridge visits, and psychoeducation)
- Continuing adequate outpatient services to allow the individual to remain in the community. Effectively preventing psychiatric readmissions includes providing alternatives to psychiatric hospitalization (e.g., day hospital, short-term crisis unit, various forms of supported housing, assertive community treatment services) should a subsequent psychiatric crisis develop.[5]

A study by Donagh et al addresses the local service mix idea – when you have the right outpatient services, hospitalizations will be less common and shorter. They conclude, "A lack of housing and community support was the most commonly cited reason preventing discharge."[6] Another study by Lee et al found that residential support is associated with shorter LOS.[7]

Harris County is large, growing, and diverse; with this growth, the number of people living in the county with severe mental health needs has grown to over 140,000 adults and 90,000 children. Of these, around 143,000 people (87,000 adults and 56,000 children) are in poverty (under 200% FPL) and have most severe needs in the public mental health system. The

Meadows Foundation has conducted the most comprehensive evaluation of the Harris County mental health network and capacity.[8] Their 2015 report contained key findings on mental health needs within the context of the broader behavioral health needs of the community, including substance use disorders, co-occurring mental illness and substance abuse, and developmental disabilities. A public version of this report is attached to our response.

People with mental health illness can be categorized into: adults with serious mental illness (SMI) and serious and persistent mental illness (SPMI), and children with severe emotional disturbances (SED). Harris County, which has by far the highest population of any county in Texas, also has the highest number of people with SMI and SED. Two-thirds of the overall population – and over 80% of the population in poverty – are African American or Latino. (See tables 1 and 2).

Table 1: Twelve-Month Prevalence of Severe Need Compared to Adult and Child Population*

County	Adults with SPMI	% of Adults	Adults with SMI	% of Adults	Total Adult Population	Children with SED	% of Children	Total Child Population
Harris	**72,473**	**2.3%**	**142,930**	**4.6%**	**3,085,107**	**91,414**	**7.8%**	**1,167,857**
Bexar	30,455	2.3%	54,055	4.1%	1,309,953	36,974	7.8%	475,403
Dallas	44,574	2.5%	88,279	4.9%	1,785,779	53,222	8.0%	667,950
Nueces	6,347	2.5%	12,212	4.7%	259,019	6,962	7.9%	87,898
Tarrant	34,228	2.5%	64,191	4.7%	1,365,940	39,006	7.6%	513,823
Travis	21,004	2.5%	38,253	4.6%	831,971	19,965	7.6%	263,329

*Estimates for children with SED are broader and more inclusive than estimates for adults with SMI and, in particular, adults with SPMI. Adults with SPMI are included within the number of adults with SMI.

Table 2: Adults with SMI and Children with SED Living At or Below 200% of Federal Poverty Level (FPL)

County	Total Population	Adults Under 200% FPL	Adults with SMI Under 200% FPL	Children Under 200% FPL	Children with SED Under 200% FPL
Harris	**4,471,427**	**1,081,370**	**87,283**	**619,683**	**56,044**
Bexar	1,882,834	456,352	34,913	242,153	21,780
Dallas	2,496,859	665,302	54,112	392,238	35,365
Nueces	357,888	95,695	7,599	47,940	4,379
Tarrant	1,959,449	418,338	35,873	240,450	21,569
Travis	1,144,887	257,714	21,673	117,386	10,703

For adults, the core outpatient public mental health system in Harris County – comprised of MHMRA, Harris Health, 12 federally qualified health centers (FQHCs), and three Medicaid

managed care networks – has capacity to provide some level of service to 75% (65,000) of those in poverty with severe needs, but the system has dramatically too little intensive service capacity. As a result, Harris County relies too much on correctional and emergency room settings to serve those with the most severe and complex needs. While the other system components can provide ongoing care for those who are relatively stable, persons in need of more intensive supports must rely on MHMRA and the growing array of supports being developed by the Medicaid managed care organizations (MCOs).

The most severe mental illnesses generally require multiple years of intensive, community-based services, such as housing, employment, and peer-based services. Relying primarily on MHMRA, Harris County is able to meet an estimated 1/9 of intensive services need, 1/10th of supportive housing capacity, and 1/7th of employment services capacity compared to the level of severe need in the community and best-practices benchmarks.

As a result, high need cases cycle repeatedly through jails, hospitals, and inadequate outpatient care, costing nearly $50 million in jail costs and $150 million in emergency room costs because the system is designed with too little core capacity. Assertive Community Treatment (ACT) is an intensive, self-contained service approach in which a range of treatment, rehabilitation, and support services are directly provided by a multidisciplinary team composed of psychiatrists, nurses, vocational specialists, substance abuse specialists, peer specialists, mental health professionals, and other clinical staff in the fields of psychology, social work, rehabilitation, counseling, and occupational therapy. The majority of ACT services are delivered to the person within the home and community, rather than provided in hospital or outpatient clinic settings, and services are available around the clock. Each team member is familiar with each consumer served by the team and is available for consultation or to provide assistance. Contemporary best practices for ACT include peer specialists as integral team members.

ACT is intended to serve individuals with severe and persistent mental illness, significant functional impairments (such as difficulty with maintaining housing or employment), and continuous high service needs (such as long-term or multiple acute inpatient admissions or frequent use of crisis services).

Research suggests that ACT is needed by just over 4% of adults with serious mental illness. ACT is one of the most well-studied service approaches for persons with SMI with the most complex needs, with over 50 published studies demonstrating its success, 25 of which are randomized clinical trials (RCTs). These research studies indicate that when compared to treatment as usual (typically standard case management), ACT substantially reduces inpatient psychiatric hospital use and increases housing stability, while moderately improving psychiatric symptoms and subjective quality of life for people with serious mental illnesses.

This intervention is most appropriate and cost-effective for people who experience the most serious symptoms of mental illness, have the greatest impairments in functioning, and have not benefited from traditional approaches to treatment. It is often used as an alternative to restrictive placements in inpatient or correctional settings. Data on the provision of ACT indicate that the two ACT teams at MHMRA of Harris County meet just over 10% of the estimated need for ACT services among the population of people with SMI in Harris County living at or below 200% of the federal poverty level. (No other providers in Harris County were known to provide ACT at the time of the study.) This compares unfavorably to best practices communities, such as Phoenix and Denver (both of which provide more ACT than may be necessary), but it is also below other communities such as New York City and all Texas benchmark counties other than Tarrant.

For children and families, the core outpatient public mental health system in Harris County has capacity to provide some level of service to 56% (31,000) of those in poverty with severe needs, but the system has dramatically too little intensive service capacity. The primary trend evident in these data is that most children served by Texas LMHAs (approximately 77%) are served at the lower levels of care (Medication Management, Targeted). This is true for all of the large LMHAs, not just MHMRA, though the trend is higher for MHMRA (approximately 85%). Note that this is largely driven by MHMRA providing more Targeted services than other LMHAs (70% versus 52% or less for comparison LMHAs). However, the total services provided for children with significant functional needs reach less than 900 children a year in a county with nearly the same number of children with SED in foster care, over 1,100 children with SED in juvenile justice system services, and over 56,000 children with severe needs. Based on work in multiple states (WA, MA, NE, and PA) that implement intensive services for those children with SED most at risk for out-of-home placement, the MMHPI team estimates that one in 10 children with SED at any one time (approximately 5,600) would require intensive services (LOC C4). MHMRA served only 33 children at this level of care in 2014. While many of these children would likely be served by Medicaid MCOs and not necessarily solely at MHMRA, such capacity is dramatically lacking. As a result, Harris County relies too much on juvenile justice, child welfare, and emergency room settings to serve those with the most severe and complex needs.

MHMRA and the six child Medicaid MCO networks offer the primary resource for intensive services. MHMRA focuses on the 8,000 with the most severe needs, but – similar to adults and to all other LMHAs in Texas – it has too little capacity for those with the highest needs (less than one-fifth compared to best practice benchmarks).

While the crisis system has been a major focus of development since 2007, and while

hundreds of new private beds are being built, Harris County's public system relies too much on state-funded psychiatric inpatient capacity, lacks at least 100 inpatient beds for the uninsured, and has only one geographic location for its primary crisis programs: the NeuroPsychiatric Center (NPC) operated by MHMRA and the Ben Taub Psychiatric Emergency Department operated by Harris Health.

Given the multiple payers involved in Harris County, the MMHPI team was not able to assemble a complete count of inpatient use. Data available through MHMRA focused solely on beds purchased by either MHMRA through the Harris County Psychiatric Center (HCPC) or by the state under contract or through state facilities. In addition, DSHS completed a statewide state psychiatric hospital capacity assessment in late 2014 that provided an estimate of system gaps.

However, both of these sources primarily focus on adult capacity. Most children are served through the Medicaid program, and these data were not currently available. MHMRA currently relies primarily on three hospitals for adults: HCPC, Rusk State Hospital (mainly for forensic cases), and Harris Health. However, adults served through MHMRA receive care annually in 16 different facilities (including over 100 people a day served across eight state facilities located outside of the county). On average across the year, just over 392 persons per day are served in facilities either purchased by MHMRA at HCPC (144.1 per day) or purchased by the state through contracts with community hospitals or at state facilities (247.9 per day). In early 2014, HHSC commissioned a consulting firm to provide an analysis of psychiatric inpatient capacity and needs for the entire state, with a focus on services provided by state psychiatric hospitals (SPH). CannonDesign produced the report, available on the DSHS website. Using this study, DSHS compiled a ten-year plan using the analysis provided by CannonDesign. According to this analysis, there are currently 4,855 inpatient beds being utilized across the state. This falls short by 570 beds of the actual need of 5,425 beds they estimated. By 2024, it is estimated that a total of 6,033 inpatient beds will be needed across the state. The current and projected need is addressed with a combination of SPH and community-based beds.

In January 2015, DSHS also released an estimate of state hospital needs statewide from the HB 3793 Task Force. This report originated from the 83rd Legislature (HB 3793), which required a plan to identify needs for inpatient and outpatient services for both forensic and non-forensic groups. A diverse stakeholder group advised DSHS in determining the need and developing a plan to address it. The HB 3793 Task Force recommended that DSHS request 720 additional inpatient beds in the 2016-2017 biennium and an additional 1,260 over subsequent biennia to meet the current and projected population growth. One of the primary factors identified by both CannonDesign and the HB 3793 Task Force – and a factor evident in

Harris County – is forensic use of civil beds. Data provided by MHMRA on FY 2015 use through April 2015 found that 195 out of 285 people served during that period (68%) were forensically involved. This court involvement considerably complicates discharge planning and community step-down development. To address the identified concerns, the Long Term Plan and CannonDesign reports recommended the development of integrated mental health, substance abuse and primary care community-based services, in addition to creating more inpatient beds. They also acknowledged that a more integrated system of community-based services would reduce the demand for inpatient services, consistent with the recommendations in the Meadows assessment.

In the DSHS 10 Year Plan, the Harris County area was identified as one of three areas of the state that was underserved by the current configuration of SPHs given the distance required to utilize these facilities (a two hour drive time is the standard used by the report). The recommendation is to continue contracting with local hospitals to fill the need for initial assessment and short-term hospitalization for stabilization and reserve SPH beds for tertiary care for individuals with complex conditions.

The state estimate of current unmet need (101) matches well the current average number of MHMRA consumers served in state facilities outside of the local area (over 109 on average), but both are likely conservative estimates. The HB 3793 Task Force recommended development of approximately 50% more beds over the short and longer term (though it did not provide regional breakouts for its estimate). However, the availability of intensive treatment and crisis services can mitigate this need. It is reasonable to expect that more capacity in this area, targeted toward those with high needs using inpatient care, could reduce inpatient use as well as the flow of people with SMI into the Harris County Jail (though housing availability will be a major limiting factor across the board). Note that these types of services should ideally be jointly funded by multiple payers (MHMRA, Medicaid MCO, Harris County) in order to optimize efficiencies and economies of scale, rather than each funding stream supporting a separate crisis care continuum. The HHSC Sunset Commission report in Recommendation 6.1 for Issue 6 also prioritized such cross-payer crisis coordination. [Sunset Advisory Commission (2015, February). Report to the 84th Legislature (see page 15). Retrieved from: https://www.sunset.texas.gov/public/uploads/u64/Report%20to%20the%2084th%20Legislature.pdf]

There are some indications that hospital and emergency room use in Harris County is lower than in comparison counties. Use of state operated and purchased psychiatric facilities (including HCPC) is one data point that demonstrates this difference. By this point of

comparison, Harris County uses less hospital capacity per person in need. This suggests that fewer people in Harris County end up in state facilities (which does not include access to non-state facilities). Analysis of emergency room expenditures by county also suggests that Harris County spends less per capita on emergency room use than comparison counties.

Table 3: State-Operated Psychiatric Hospital Days by Age, FY 2014*

Age Group	Harris	Bexar	NSTAR	Nueces	Tarrant	Travis
Child/Adolescent	**1,900**	**5,184**	**13,572**	**924**	**4,160**	**1,288**
SED <200% FPL	56,044	21,780	35,365	4,378	21,568	10,703
Days per 1,000 for Population in Need	33.9	238.0	383.8	211.1	192.9	120.3
Adult	**69,390**	**47,481**	**109,760**	**14,523**	**41,820**	**32,490**
Days per 1,000 for Population in Need	795.0	1,360.0	2,028.4	1,911.2	1,165.8	1,499.1
SMI <200% FPL	87,283	34,913	54,112	7,599	35,873	21,673
Geriatric	**7,975**	**14,040**	**9,504**	**132**	**2,592**	**3,792**
Days per 1,000 for Population in Need	91.4	402.1	175.6	17.4	72.3	175.0
SMI <200% FPL	87,283	34,913	54,112	7,599	35,873	21,673

*Data received through personal communication with DSHS on February 13, 2015. Data are for LMHAs and for NorthSTAR. Data were calculated by multiplying the number of admissions in FY14 by the Average Length of Stay.

Table 4: Estimated ED visits for MH Crisis, Relative to Estimated Prevalence of Adults with SMI*

Population	Harris	Bexar	Dallas	Nueces	Tarrant	Travis
Visits	**37,881**	22,087	41,623	5,022	38,126	12,483
Adults with SMI Under 200% FPL	**87,283**	34,913	54,112	7,599	35,873	21,673
Visits per 1,000 Adults in Need	**434.0**	632.6	769.2	660.9	1,062.8	576.0

*Emergency Department (ED) data for both mental health and substance abuse are from: Meadows Mental Health Policy Institute and Texas Conference of Urban Counties. (2015). Survey of County Behavioral Health Utilization. Unpublished Document. Dallas, TX: Meadows Mental Health Policy Institute.

Another major indicator showing system needs involves lengths of stay in inpatient facilities. Comparison data shows that Harris County adults have longer lengths of stay, as summarized in Table 5, below. This could be due in part to higher needs and greater complexity. It is also likely related to the lack of intensive treatment capacity and other supports (most importantly, housing) in the community. These longer lengths of stay are also likely driven by the distances

involved when people are placed in inpatient facilities outside of the county.

Table 5: State-Operated Psychiatric Hospital Average Lengths of Stay by Age, FY 2014*

Age Group	Harris	Bexar	NSTAR	Nueces	Tarrant	Travis
Child/Adolescent	**100**	32	116	66	130	46
Adult	**257**	119	64	141	123	57
Geriatric	**1,595**	936	352	66	144	316
Data received through personal communication with DSHS on February 13, 2015. Data are for LMHAs and for NorthSTAR.						

While targeted funding for new projects by DSHS and DSRIP has increased dramatically (especially since 2012), DSHS funding for treatment capacity for the uninsured has shrunk on a per capita basis relative to inflation for adults and children, and Medicaid funding has increased. MHMRA administrative spending is lower than that for comparison LMHAs, and performance metrics tracked by DSHS show better performance in many areas for adults. Compared to the statewide average of funding for adult and child mental health services, MHMRA is funded between $6 million and $9 million lower.

Sources:

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10. Department of Health and Human Services. *National Survey of Substance Abuse Treatment Services (N-SSATS): 2013 Data on Substance Abuse Treatment Facilities*.; 2014.