THE CONSEQUENCES OF UNTREATED MENTAL ILLNESS IN HOUSTON

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The Consequences of Untreated Mental Illness in Houston

EXECUTIVE SUMMARY

This report analyzes the effects of mental illness on the people of Houston. One of every five Houstonians (665,000) has a mental illness. Of these, 181,690 have a serious mental illness. Texas ranks 49th in state per capita mental health funding, and Harris County (greater Houston) ranks among the lowest in Texas counties. The consequences of an insufficiently funded public service system include economic loss, homelessness, increased juvenile and adult criminal justice system involvement and about a 25-year decrease in life expectancy.

Mental illness affects all Houstonians in some way. More than 1.4 million Houstonians (or over 1/3 of the total population) are within the close social network of a person with a severe mental illness. Marriages, families, schools, jobs and businesses are all negatively impacted. **Houston loses more than 5.6 billion dollars yearly in productivity and annual earnings as a result of severe mental illness.**

Serious mental illness can be effectively treated by medical and social services. Substantial scientific advances have been made in treatment and in service delivery. Houston has the technology and the methodology to greatly improve the lives of hundreds of thousands of its citizens.

It is hoped that this report stimulates discussions that will culminate in a substantially better understanding of mental illness and the reform that Houston needs and deserves.

I. INTRODUCTION

This year, one in every five Houstonians will have a serious mental illness (SMI) that could benefit from treatment. Their families, employees and employers will be adversely affected. Despite the enormity of its negative effects and the sizable number of people directly and indirectly influenced by mental illness, this remains a largely unaddressed problem in Houston; the problem is even greater than in other metropolitan areas.

Mental Illness is first and foremost a disease of the body, specifically of the brain; but it is physical in nature. It involves abnormalities in a person's anatomy and physiology. Mental illness, like all illnesses, is caused by a malfunction in the body's normal activity (Ghaemi, 2006).

Mental illnesses can be mild or severe, transient or chronic. Most people with mental illness behave normally. Yet some exhibit symptoms that are bizarre and obvious. Mental illness affects a person's ability to function. The effects can be mild, or they can completely interfere with one's ability to work, live effectively with others, and/or perform even the most basic activities of daily living. This report will deal largely with the more serious mental illnesses, which substantially disrupt the lives of Houston's children and adults. It will also examine ways in which mental illness affects people who are not mentally ill. Mental illness impacts all Houstonians.

Mental illness impairs individuals, families, neighborhoods, schools, and businesses. Untreated, it disrupts our daily lives and our social, economic and health care systems. Fortunately, effective treatments exist.

Mental illness impairs individuals, families, neighborhoods, schools, and businesses. Untreated, it disrupts our daily lives and our social, economic and healthcare systems. Fortunately, effective treatments exist. These treatments restore well-being and productivity. They aid in preserving lives, families and businesses. Treatment saves lives, maintains close nurturing families and promotes productivity and expanding businesses.

Unfortunately, many Houstonians with severe mental illness do not receive the treatments they desperately need (Mental Health Needs Council, 2009). Under-funded public services (Aron, L., Honberg, R., Duckworth, K., et al., 2009), lack of insurance (U.S. Census Bureau, 2008), service system disorganization (Aron, et. al., 2009), and ineffective public policy are major factors that limit delivery of necessary mental health treatments. Ironically, we know a great deal about effective treatments for mental illness, yet these barriers substantially limit our ability to provide services to many Houstonians who need them. Consequently, Houston's citizens and economy suffer from problems that in large part could be solved.

This report is an analysis of the status of the effect of mental illness on Houstonians and Houston. It assumes that Houston has sufficient services to meet the needs of most people who have the means to purchase them. Therefore, this report will focus primarily on public services for people who do not have the ability to pay for needed care. It provides a detailed answer to the question "What are the effects of insufficient mental health services on the citizenry of Houston?" It addresses the following specific questions:

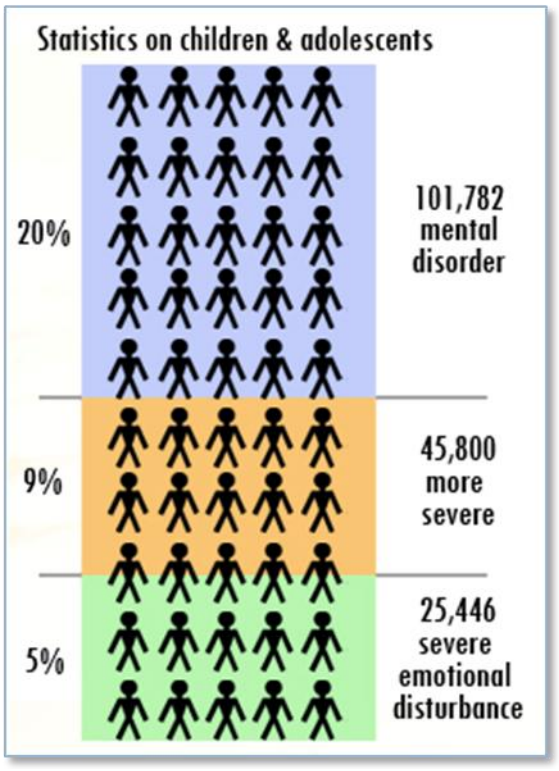
- What is mental illness and what is its prevalence?
- Who are Houston's major providers of service, and what is our capability to serve people with mental illness? (i.e. available services, access issues and evidence of service insufficiency.)
- What are the consequences of failure to adequately treat people with mental illness; how are people without mental illness affected by this lack of treatment, and what are the economic and social costs of insufficient mental health services?
- What is an effective mental health service system? (i.e. service components, delivery principles and primary characteristics.)
- What are Houston's primary mental health service needs at this time?

This report concludes with a summary of major findings and an overview of the Mental Health Policy Analysis Collaborative's research agenda.

II. MENTAL ILLNESS AND ITS PREVALENCE

All human behavior can be characterized as existing on a continuum between mental health and mental illness. Along this continuum are behavioral characteristics that enhance or impair a person's ability to function effectively. Mental illnesses are those mental disorders that negatively affect one's performance as a family member, a student, an employee and an employer. The degree to which mental illnesses affect our ability to function can be substantial. Milder mental illness may only slightly disrupt our day-to-day lives. Major mental illnesses dramatically limit our capacity to effectively deal with life's challenges.

This report will primarily address the problems and needs of Houstonians[1] of all ages who have major mental illnesses that limit their ability to function effectively in their everyday social roles. While milder forms of mental illness cause instability in one's life, major forms cause greater disruption.

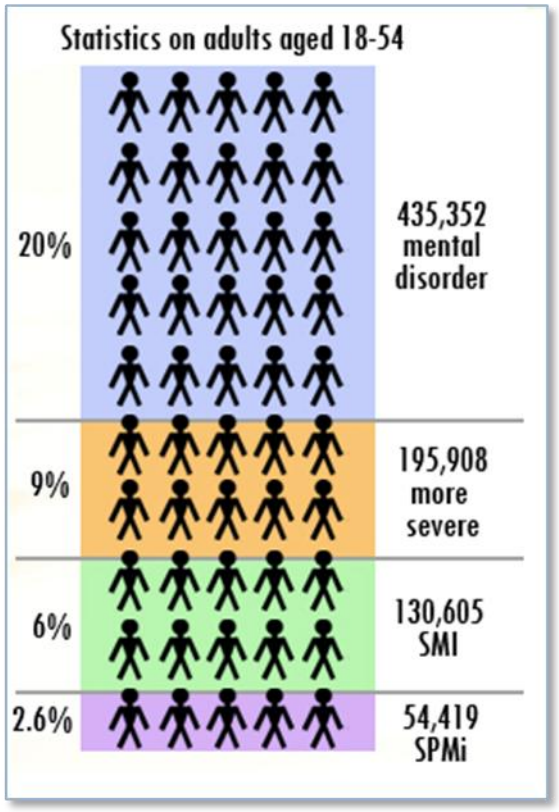


This report adopts the conceptualization of major mental illness as presented in the 1999 United States Surgeon General's report on Mental Health (U.S. Department of Health and Human Services). The following is an overview of the prevalence of mental illness in Houston.

It is estimated that 20 percent, or 101,782, of the 508,912 children and adolescents 9 to 17 years of age in the Houston area have mental disorders with at least a mild functional impairment during a given year (Texas State Data Center and Office of the State Demographer, 2007 estimates of county population; U.S. Surgeon General, 1999). It is further estimated that a smaller portion of this number, 9 percent, or 45,800, of children and adolescents will have a more severe functional impairment. The group of children who are said to have serious emotional disturbance (SED)

[1] In this report the terms Houston and Greater Houston Area refer to Harris County.

represents the smallest yet most severely impaired. Major mental illnesses in this category include anxiety, depression and disruptive behavior disorders. About 5 percent of children and adolescents between the ages of 9 to 17 fall into this category and can be said to suffer severe emotional disturbance.[2] In Harris County, this group can be estimated to include 25,446 children and youth.[3]



As with children, about 20 percent, or 435,352 of adults aged 18 to 54 will have a mental disorder during a given year. A smaller subgroup of nine percent, or 195,908, of Houstonians will have a mental disorder and will experience at least transitory impairment. Mental disorders included in this category are anxiety and mood disorders (primarily depression) as well as schizophrenia and personality disorder. About 6 percent, or 130,605, of Houstonians between the ages of 18 and 54, are believed to have a serious mental illness (SMI) that interferes significantly with their social functioning. An estimated 54,419, or 2.6 percent of Houstonians, have a serious and persistent mental illness (SPMI). These disorders are often chronic and sometimes life-long. Diagnostic categories included in SPMI are bipolar disorder and other severe forms of depression, schizophrenia, panic disorders and obsessive-compulsive disorder. These illnesses are the most disabling and chronically affect people for years.

Although sometimes resulting in chronic disability, Post Traumatic Stress Disorder (PTSD) has traditionally been considered outside the spectrum of SPMI. Therefore PTSD is not included in these estimates. Past research has found that the prevalence of PTSD ranges from 3.8 percent of the population during a one-year period (Kessler et al., 2005) to a lifetime

[2] Insufficient research has been done on children under 10 years of age to accurately access the prevalence of mental disorders.

[3] While children under the age of 9 most assuredly have SED, epidemiological studies on young children have not yet rendered consensus on issues of prevalence. We estimate that at least 5 percent of these children have SED.

prevalence of 7.8 percent of the population (Kessler et al., 1995). Studies of at-risk individuals reveal that as many as one-third to one-half of the most severely traumatized (e.g., combat veterans, rape survivors) will develop this syndrome (DSM IV-TR APA 2000). One outcome of Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) will be an increase in the prevalence of PTSD. Given its population size (fourth largest metropolitan area in the United States) coupled with its medical and Veteran's Administration services, Houston will need to prepare for thousands of returning OEF/OIF veterans with PTSD throughout the foreseeable future. Another report will address the mental health needs and problems of Houston's returning veterans.

Similar to children and younger adults, about 20 percent of adults over the age of 55 have a mental illness. While there has been less research on this population, it is believed that 4 percent, or 25,640 of elderly Houstonians have SMI and 1 percent, or 6,410, have SPMI. These prevalence estimates do not include conditions that severely impair cognitive functioning such as Alzheimer's disease.

Estimated prevalence of major mental illness in Houston

	Harris County Estimated 2007 Population	% with Any Mental Disorder	# with Any Mental Disorder	% with Significant Impariment	#with Significant Impariment	% with Serious Impairment	# with Serious Impairment
Under 9 yrs	568,697	No figures available for this age group from ECA or NCS studies					
9-17 yrs	508,912	20	101,782	9%	45,802	5%	25,446
18-54 yrs	2,176,758	20	435,352	9%	195,908	6%	130,605
55+ yrs	641,000	20	128,200	9%	57,690	4%	25,640
Total	3,895,367		665,334		299,400		181,691

As the above table indicates, in a given year an estimated 665,334 people in the Greater Houston area have a mental illness; 181,691 have a serious mental illness that limits their ability to effectively function in their daily lives. The lives of many more Houstonians are affected by mental illness, especially by untreated or under-treated mental illness.

Americans tend to put off treatment of mental disorders for years, causing unnecessary personal suffering and deterioration in their functioning. **Less than half get treatment** (Kessler et al, 1999). Those treated often delay treatment for 10 years or more (Wang, Berglund et al., 2005). When they do access treatment, it is usually inadequate (Wang, Lane et al., 2005). This state of affairs is more troubling when one considers that we now have extensive knowledge of treatment effectiveness and best evidence-based practices to utilize in service delivery (Kramer and Glazer, 2001; Kauth et al., 2005; Horvitz-Lennon, 2009). Yet for public mental health services, the Houston area remains one of the most underfunded (in public tax-based dollars) metropolitan areas in one of the most underfunded states in America (Aron, L., et.al., 2009). This funding disparity has a negative impact on people with mental illness, their neighbors and our city.

III. MENTAL HEALTH SERVICES IN HOUSTON

Mental health services in Houston are funded by private and public sources. Private funds come primarily from “out of pocket” payments and private health insurance. Public funds come from federal, state, county and city tax-based sources and philanthropic organizations.

Texas ranks 49th in the country in mental health service expenditures per capita (Aron, L., et. al., 2009). Houston’s primary state-supported mental health service provider ranks 35th of 38 community mental health centers in Texas. Thirty-four centers receive per capita funding greater than Houston’s. Thus it is not surprising that Houston is substantially underfunded from public sources. It is generally believed that people with adequate insurance and/or private resources can acquire the mental health services they desire. Their needs are presumably met by a sufficient private mental health service sector. The data on the available mental health professional workforce in this region points to potential problems even with the privately insured population. Anecdotes about lengthy waits for initial appointments are common. Indigent and/or underinsured people must try to obtain services from the limited public sector sources and therefore shall be the major focus of this report.

In order to evaluate the adequacy of Houston’s mental health services it is necessary to compare the need with Houston’s capacity to meet that need. The following is a review of

Houston's major pubic mental health service sector components. While other smaller providers of mental health services collectively offer important care, the following organizations are by far the largest.

Houston's major primary public mental health service providers include the Mental Health and Mental Retardation Authority of Harris County (MHMRA), the UT Harris County Psychiatric Center (UTHCPC), the Harris County Hospital District (HCHD), the Michael E. DeBakey Veteran's Affairs Medical Center (VA), the Harris County Jail, Rusk State Hospital (RSH) and the public schools. While other agencies provide some public mental health services, these agencies deliver the overwhelming tax-supported care. It should be noted that Medicaid pays for a substantial amount of services. People with Medicaid may choose to receive services from either these public providers or from the limited group of private providers who will still accept Medicaid.

MHMRA is funded primarily from state General Revenue funds, Harris County revenues and Medicaid. It provides crisis services (the NeuroPsychiatric Center, or NPC), outpatient care, residential services and some rehabilitative services. MHMRA's estimated outpatient service capacity is 8,200 adults and 1,600 children per month. Since many of these are chronic cases engaged in ongoing care, over the course of a year fewer than 12,000 adults can be served with existing resources, and no more than 4,000 children will fit within the service agency capacity of this public mental health agency. It is important to note that this capacity estimate does not mean that these adults and children are receiving all the services that they need. These are MHMRA estimates of basic service provision. Basic services include crisis care, some outpatient care and medication if needed.

The UTHCPC is a 250-bed (maximum capacity) inpatient facility owned by the State of Texas and Harris County. In 2008, UTHCPC had 192 beds in operation. Fifty-eight beds were closed due to lack of funds. Recent legislative action will allow UTHCPC to open additional beds. MHMRA provides oversight to UTHCPC; The University of Texas Health Science Center at Houston directly administers it. Although various funding streams support UTHCPC, in 2008 it had an average daily census of 177 patients and had 5,077 inpatient admissions. Its average length of stay is 7.7 days for children and adolescents and 10.5 days for adults. UTHCPC

offers short-term inpatient psychiatric services. UTHCPC also provides inpatient services by way of contracts with the Harris County Jail, Juvenile Probation and Children's Protective Services. These additional units have varying lengths of stay.

The Harris County Hospital District (HCHD) offers a full range of inpatient and outpatient medical services. A tremendous amount of mental health care is provided by primary care and other, non-psychiatric, clinicians. A 2005 analysis revealed that approximately 20 percent of all visits within the HCHD were coded with a primary or secondary behavioral health diagnosis. Specialty psychiatric services are offered at the Ben Taub Psychiatric Emergency Center (with a throughput of almost 500 acute psychiatric evaluations per month), at the Ben Taub Mental Health Service 20-bed inpatient unit, and at sixteen of the District's outpatient clinics.

There is a direct relationship between mental health service availability and the prevalence of mental illness in jails. Mental health treatment appears to reduce the prevalence of mental illness in the criminal justice system (Abramson, 1972). Insufficient mental health services in Harris County have caused a high prevalence of mental illness in the Harris County Jail. Currently, of about 9,500 detained individuals, there are in excess of 2,500 people in this jail who are receiving psychiatric medication. The Jail's special psychiatric inpatient unit has a bed capacity of 143 with 24 additional dedicated beds at the UT Harris County Psychiatric Center. The prevalence of mental illness in the Harris County Jail appears to be increasing each year.

The VA provides mental health outpatient services to more than 20,000 people within the DeBakey hospital and their clinic system annually. In addition, the hospital maintains a robust inpatient service of 74 beds.

Rusk and the other state hospitals provide longer-term inpatient services to Harris Country residents through a contract with the local mental health authority. MHMRA is budgeted for 171 patients to be treated within the state hospital system on any given day.

Although these public agencies deliver a substantial service, their relative capacities are much smaller than those of many other large metropolitan mental health service systems, the exception being the VA, which is the largest of its kind. It is worth repeating that when Texas is

compared to other states, it ranks low in public per capita mental health funding and Houston ranks low in per capita funding relative to other areas in Texas.

Like the rest of the country, the Houston area saw a profound depletion of inpatient mental healthcare capacity beginning in the early 1990's (Mental Health: United States, 2004, CMHSI). What had been a robust delivery system of more than 3,000 inpatient psychiatric beds in 1990 was gradually reduced to approximately 900 by 2007 (Harris County Healthcare Alliance Report, 2007). This loss of more than 70 percent of local capacity represented a greater negative impact than that felt, on average, across the rest of the country, where there was an overall drop of 60 percent over the same time frame (Frank et al., 2009). This reduction in treatment resources occurred simultaneously with above-average growth in Houston's population (Perry et al., 2001), further worsening the negative impact on those in need.

There were several reasons for this marked reduction in available treatment capacity. A drastic reduction in public and private third-party reimbursement for inpatient care that resulted from the managed care era contributed more to this reduction than any other single reason. Psychiatric hospital revenue dropped by approximately one-third, making mental healthcare the only segment of healthcare overall that saw an actual reduction in costs during the 90's and early 2000's, as compared to slowed growth in the remainder of the healthcare industry (Frank et al., 2009).

Perhaps the hardest hit of all mental healthcare components have been the general hospital psychiatric units in Houston, all of which were either eliminated or reduced during the past two decades. At this point, only five of this region's more than 100 general medical/surgical hospitals contain any psychiatric beds. Two of these, the Ben Taub and the VA, are publicly funded, leaving only three units with 138 total beds on the private side, mostly concentrated in only one facility (St. Joseph's Hospital with 102 beds). Nationally, more than 20 percent of available inpatient psychiatric capacity is housed in non-Federal general hospitals (SAMHSA, 2004). In Houston this number is closer to 15 percent and would drop to less than 5 percent without St. Joseph's Hospital.

The vast majority of Houston's (non-jail-based) inpatient psychiatric capacity resides in the one public and seven private, free-standing psychiatric hospitals. The quality of these facilities is

exceptional, in some cases garnering national and international recognition (*U.S. News and World Report*, 2009). The quantity of available services, however, is insufficient when compared to similar metropolitan areas within the United States. National statistics show that there are approximately 70 inpatient beds per 100,000 population (SAMHSA, 2004) and a consensus of experts reported that a minimum of 50 public beds per 100,000 was necessary (Torrey et al., 2008). Houston falls extremely short of both standards, with about 23 total beds per 100,000 and 7 public beds per 100,000. If the state hospital bed capacity that is budgeted for Harris County is factored in (171 beds, though the full capacity is routinely unavailable due to over-utilization by other counties), these numbers become 27 per 100,000 and 11 per 100,000 respectively, still remarkably short of the national standards.

Outpatient capacity is much more varied and amorphous than inpatient treatment capacity, making comparison across regions difficult. There are many types of professionals who engage in mental healthcare beyond psychiatrists with medical degrees. Efforts to assess the adequacy of these resources have proved challenging, though data across the United States reveals that one would expect there to be roughly 560 psychiatrists and 1244 psychologists for a population of four million (SAMHSA, 2004). The Texas Medical Board website (http://www.tmb.state.tx.us/agency/statistics/demo/docs/docdemo.php) reports that there are 432 licensed physicians (as of January 2009) in Harris County who self-identify as psychiatrists, or 23 percent fewer than would be expected from national norms. Likewise, the Texas State Board of Examiners of Psychologists (http://www.tsbep.state.tx.us/2008_Roster.pdf) lists 783 licensed psychologists in the Houston area, 37 percent fewer than expected.

Service Capacity

Mental health service capacity is difficult to precisely define. Two complex issues contribute to this problem. People with mental illness exhibit a wide array of help or service-seeking behaviors. Many who need care will not seek it for many reasons such as: 1) they are not aware that they need help (due to their mental illness); 2) they find the side effects of their medications too bothersome; 3) they have sought help, but find service access to be a complex and difficult task; and 4) they find the stigma attached to being a consumer of mental

health services to be negative. Each of these reasons can be addressed through client/patient and public education. A study found that less than 40 percent of people with untreated SMI received stable treatment (Kessler et al., 2001).

Optimal capacities are often surpassed as increasing numbers of people attempt to access services; increases in demand stress service providers. An analysis of capacity is further complicated by the interactions of various services within the mental health service continuum. Inpatient and outpatient services address differing clinical needs and levels of severity of illness. As with other forms of illness, people with mental illness may need hospitalization on occasion, though at other times they are best served on an outpatient basis. There is a dynamic relationship between these two services. Ideally a person in need of inpatient care would receive it and then would later be treated on an outpatient basis. Patients whose outpatient needs are not met due to limited outpatient capacity or failure to seek services at the appropriate time often become more ill and exhibit increased need for crisis and inpatient services. Adequate outpatient capacity substantially reduces the need for inpatient services.

Insufficient inpatient and outpatient services greatly increase the need for crisis care. A system that is predominantly crisis-based is inherently ineffective. People with mental illness are often trapped in a cycle from crisis to crisis. Not only is this clinically ineffective but cost-ineffective. As with all illnesses, a balance of inpatient, outpatient and crisis services is best for people with mental illness.

In an ideal service system, the capacity for each could be estimated more accurately. However, as has been noted, Houston's public mental health system is far from ideal. The outpatient inadequacies greatly increase the need for crisis care and inpatient care. This then causes our inpatient and crisis capacities to be inadequate. Substantial increases in Houston's public outpatient capacity would lessen the demand for inpatient and crisis services. Despite this fact, expanding outpatient care would not eliminate the need for some expanded inpatient capacity, nor would an ideal system eliminate crisis care.

All these interrelated issues confound efforts to make precise estimates of needed services. However, the Mental Health Needs Council (MHNC) in Houston has developed a model for estimating the approximate number of people in need of services who are unable to acquire

them. Utilizing this methodology it is estimated that over 14,000 children and adolescents with severe mental illness cannot access either the public or private mental health systems in Houston (Mental Health Needs Council, 2009)

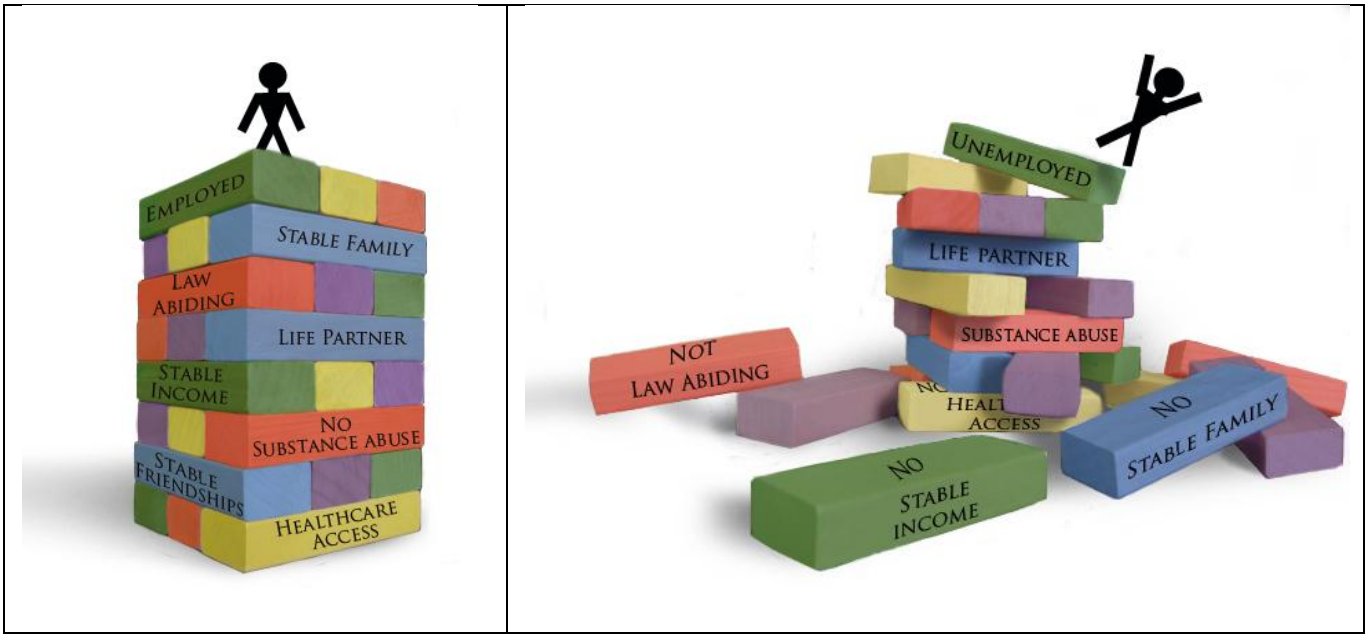
Further, an estimated 79,300 adults with severe mental illness cannot access the public or private systems (Mental Health Needs Council, 2009). Lack of access is caused primarily by insufficient capacity, the inability to purchase needed services and the failure of some people with SMI to seek services.

As the following section indicates, failing to adequately treat mental illness dramatically affects Houston's mothers, fathers, sons and daughters, relatives, employees, employers, veterans, the rich and the poor and the middle class. Inadequate treatment of mental illness reduces life expectancy, livelihood and every other aspect of people's lives. These tragic consequences are made even more unacceptable when we consider the fact that they are unnecessary. Treatment works. The quality of life can be restored (Boodman, 2002; Liberman et al., 2002).

IV. CONSEQUENCES OF SERVICE INSUFFICIENCY

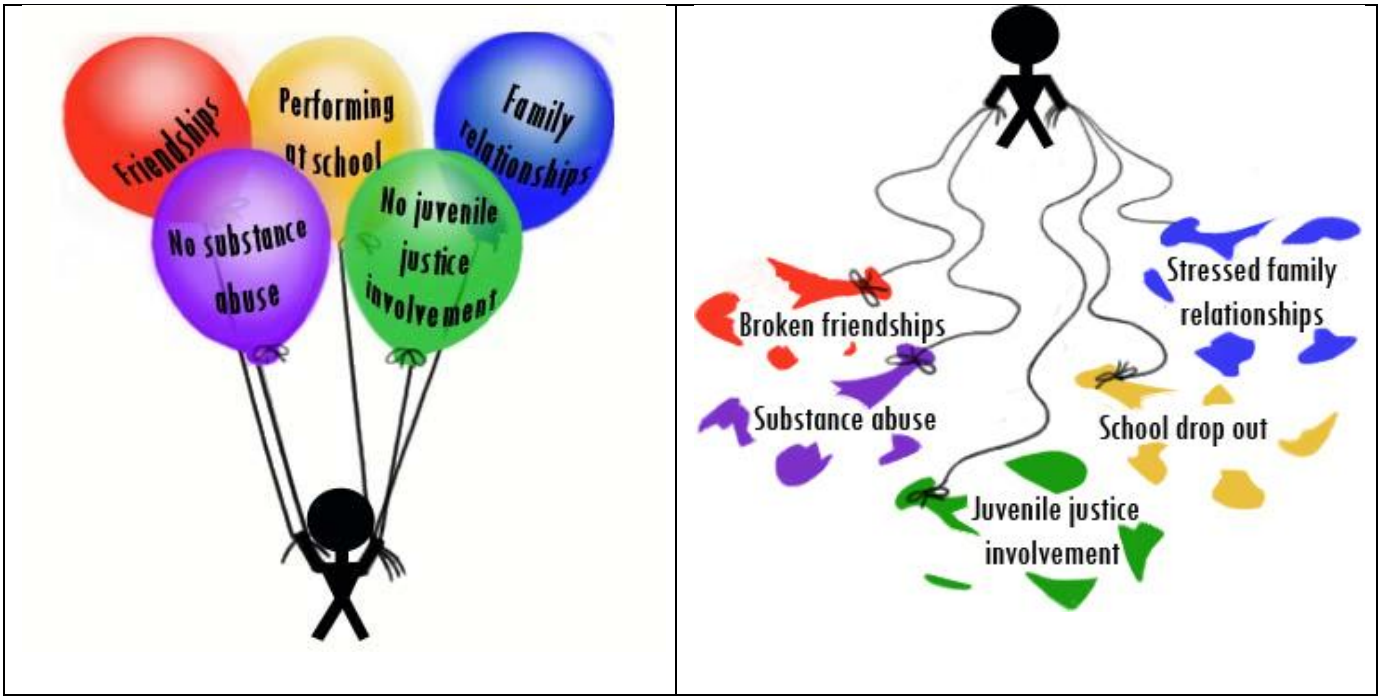
Severe mental illness affects all aspects of people's lives and the lives of their loved ones. We depend on mental activity for everything we do. Cognitive impairment hinders our ability to perform simple and complex tasks. Untreated and under-treated mental illness often sets in motion and perpetuates a cascade of increasing mental instability and concurrent impairments in performance (Kessler, R.C., Berglund, P.A., Zhao, et. al., 1996). Sociologists have used the term "downward drift" to describe what can happen to some people whose serious mental illness is untreated and becomes chronic.

The following chain of events portrays a common set of consequences for a person with untreated mental illness. Assume that a person is married, owns a home, and is employed in a job that provides health insurance.



If this person develops a mental illness and receives adequate treatment then he or she usually remains employed, married, and continues to reside in the home. However, if a person with serious mental illness does not receive treatment (or does not comply with treatment) then there is an increased likelihood that the illness will become worse, creating greater functional impairment. Decreased functionality complicates the ability to successfully perform the roles as spouse, parent, son or daughter, grandparent, or close friend and employee or employer. As these relationships become increasingly strained, family and occupational relationships suffer concurrently. Family disruption often leads to strain on the relationship, which could result in separation or divorce. As families break up, people with serious mental illness often lose important supportive relationships that are vital to recovery. Increasing functional impairments often lead to job loss. Job loss lends itself to loss of health insurance, which in turn reduces access to needed health care. This loss leads to further worsening of the mental illness. Income loss further reduces a person's ability to make mortgage or rent payments. Homelessness is the occasional result. The above graphic portrays the effects of untreated mental illness on a person's social support system.

The graphic below portrays similar effects on the social support system of children and adolescents.



Stigma

All medical conditions have clinical, economic and social consequences. Each in a varying degree impairs physical functionality, costs money to treat and leads to lost income because of diminished work performance. Each consequence has social and cultural ramifications. Diseases that are easily and inexpensively treated carry few or no social consequences. Conversely, diseases that have causes that are misunderstood or unknown, that substantially impair a person's ability to function and entail significant costs in treatment and lost work days carry major social consequences. Historically tuberculosis and cancer were in this latter category. In the past these diseases frightened people and threatened society. People with these illnesses were consequently stigmatized as, at best, people to be avoided and, at worst, as evil threats to society. As these diseases became understood and treatable, the stigmas that they once carried lessened.

Although there has been recent improvement, today **mental illness remains one of the most stigmatized of all medical disorders**. People are no more willing to have social connections to people with mental illness today than in the past (Frank and Glied, 2006). This stigma is largely due to our lack of understanding of its causes and its occasional bizarre symptoms. Deviant behaviors often invoke fear. In a society that places high value on adherence to social norms, people who exhibit strange behaviors are often perceived as threatening (Link, Phelan, Bresnahan et al., 1999). It is not surprising that those with mental illness have been persecuted throughout history as witches (Salem), executed as deviants (Nazi Germany) and unfairly jailed and imprisoned, usually in spite of their innocence (America from colonial times to the present). Despite significant advances in the diagnosis and treatment of symptoms, mental illness still carries substantial stigma that engenders fear and denial (Jorm, 2000).

Most Houstonians probably invest little time or emotion in fearing mental illness. Many people successfully avoid thinking about mental illness altogether. This avoidance (denial) leads to the belief that mental illness is not something that affects them. This denial, in turn, supports the common belief that mental illness is something that happens to someone else in some other neighborhood. Denial of the prevalence of mental illness, coupled with the belief that it affects others (not us or our friends), minimizes individual and societal concerns about mental disorders. This leads to a denial of needed treatment. Services for people with mental illness have historically received low priority by the government and insurance companies. The consequences to people in need of treatment have been reviewed in the preceding pages. There are equally substantial consequences to society as a whole; our pervasive denial of this fact, however, impacts most of us in ways of which we are largely unaware.

Social Networks

Social scientists studying the concept of social networks (Hill and Dunbar, 2003) have found that each of us has approximately 150 people in our social network of friends, family members and acquaintances. Each of us also has a normal, intimate psychosocial network of about 25 people (Pattison and Pattison, 1981). People with mental illness have a smaller network of 4 to 13 people (Albert, Becker, McCrone, et al., 1998). If each person with severe and persistent

mental illness in Houston has a social network of 8.5 (the mean of 4-13 people) then 1,544,373 people in Houston are in their intimate psychosocial networks. In order to reduce possible duplication (one person being counted multiple times because of relationship to, or friendship with, more than one individual with SMI) the total can be reduced by 10 percent. **This extrapolation suggests that 1.4 million people in Houston are directly and closely involved with someone who has severe mental illness**.

Usually the closest members of the social network are family members. Mental illness affects entire families (Marsh, 1997). When one family member has a severe mental illness, all the relatives are usually affected in some way. Negative emotional effects may include concern and anxiety over the person's recovery and safety and frustration (and sometimes fear) over inconsistent and strange behavior. Other negative effects include not only costly treatment, which may strain family budgets, but also bothersome encounters with service providers, insurance companies and police officials. Living with or caring for a person with severe mental illness can be a time-consuming and chaotic experience. As families become more strained, divorce and separation become more likely (Marsh, 1997).

Family members of people with mental illness have been found to experience grief, symbolic loss (pertaining to hopes and expectations of their loved one), chronic sorrow, the feeling that they are on an emotional roller coaster and emphatic pain (Marsh, 1997). Families play a vital supportive role in the care and support of their relatives with mental illness. Unaddressed, the negative emotions referenced above not only disrupt their own lives but hinder their ability to help their loved ones. (It should be noted that the National Alliance for Mental Illness [NAMI] and its state and local affiliates emphasize the family's role in supporting people with mental illness and strive to support families as a regular part of their program).

Direct and Indirect Costs

Not only do untreated and under-treated health problems exact substantial personal costs, there are enormous implications for the economy and social costs as well (Kessler and Stang, 2006). The economic and social aspects affected by an insufficient mental health services system are all interrelated. For example, treating primary care patients who are depressed

improves their physical and social functioning as well as their mental functioning (Coulehan, Schulberg, Block et al., 1997).

The costs to society of mental illness are both direct and indirect. The direct costs include medical resources used for care, treatment and rehabilitation (U.S. Department of Health and Human Services, 1999). Unlike other areas of medicine, the costs of mental disorders are more indirect than direct (Insel, 2008). Indirect costs are primarily the result of lack of treatment (Thompson, 2007). Over 80 percent of these costs are related to morbidity, including the reduced or lost productivity due to illness (Department of Health and Human Services, 1999). They also include the costs of lost productivity due to premature deaths (mortality costs), incarceration, homelessness of the individual with mental illness and the support costs of individuals providing care for family members with mental illness. These indirect cost estimates are conservative because they do not capture some measure of the pain, suffering, disruption and reduced productivity that are reflected in lost earnings (Department of Health and Human Services, 1999).

The direct costs associated with diagnosis and treatment of mental illness in the United States were $85 billion in 2001 (Thompson, 2007) and $100 billion in 2003 (Mark, Levit, Buck, et al., 2007). Houston has 1.3 percent of the U.S. population so more than $1 billion in direct costs for mental illness is spent in Houston. Over 50 percent of those expenditures were financed with public dollars (Department of Health and Human Services, 1999). Retail prescription drug costs for psychoactive drugs were $23.3 billion in 2003 (Mark, Levit, Buck, et al., 2007). Mental illness, substance abuse and behavioral problems among children and young adults cost the United States $247 billion a year in treatment and lost productivity (Institute of Medicine), or over $2 billion in Houston alone. Nationally, spending for mental health treatment comprises an estimated 6.2 percent of health care spending (Mark, Levit, Coffey et al., 2007).

Productivity Loss

The workplace bears a significant burden of costs of illness due to untreated and under-treated problems (Kessler, Davis, et al., 2001; Pauly, et al., 2002). The relationship between employment and mental health is complex; employment may affect mental health, and mental

health is also likely to have an impact on employment (Hamilton, Merrigan and Dufresne, 1997). Productivity-related losses play an important role in estimating the cost burden for common mental health conditions. These losses occur through at least two channels, which include both lower productivity while on the job and also work days lost or cut backs due to mental illness.

Serious mental illness has been found to be significantly associated with reduced earnings among women and men (Bartel and Taubman, 1986). People diagnosed in the past year with SMI have been found to have annual earnings averaging over $16,000 less than their counterparts without SMI (Kessler, Heeringa, Lakoma, et al., 2008). Nationally, SMI is associated with an annual earnings loss of $193.2 billion (Kessler, Heeringa, Lakoma, et al., 2008). Considering that Houston's massive Gross Domestic Product (GDP) accounts for 2.9 percent of the U.S. GDP (U.S. Dept of Commerce, 2006), **Houston bears more than $5.6 billion in annual earnings losses as a result of severe mental illness**.

Absence and disability losses have been found to constitute almost half the total health- and productivity-related expenditures for mental health conditions (Goetzel, et al., 2003). The effects of psychiatric disorders on work loss are similar across all occupations. The average prevalence of psychiatric work-loss days is 6 days per month per 100 workers (Kessler and Frank, 1997). Kessler and Frank (1997) found that the effects on work cut-back days (31 days per month per 100 workers) are greater among professional workers than among those in other occupations. Depression was estimated to cause an annual loss of $33 billion in work absenteeism in the U.S. in 1996 (Greenberg, et al., 1996) or approximately $1.29 billion dollars in 2009 in Houston alone when adjusted for inflation. Schizophrenia has been estimated to cost the U.S. an additional $32 billion annually in lost productivity, premature mortality and economic impact on family members (Wu, et al., 2005), resulting in a loss of roughly $1 billion more dollars to Houston in 2009. Using the same methodology for bipolar disorder (Wyatt and Henter, 1995) and severe anxiety disorders (DuPont, et al., 1996), with adjustment for inflation, Houston will lose out on an additional $3.1 billion dollars of productivity in 2009. Collectively, the major mental illnesses will silently set the Houston economy back by more than $5.6 billion in 2009 in the indirect costs that result from absenteeism, disability and lost work years. The

effects on work productivity and absenteeism are particularly pertinent because they represent costs that employers and employees must bear.

Prominent mental health services researchers have presented the economic argument that it is cost-effective for employers to increase the proportion of depressed workers who receive treatment (Kessler, Barber, et al.,1999). Yet rates of depression treatment are low (Kessler, Zhao, et al.,1999), despite evidence suggesting mental health benefits represent a solid value for the money spent (Frank, McGuire et al., 999). If one presumes that only 15 percent of the indirect costs of mental illness could be recouped by the implementation of an adequate treatment system, a conservative estimate, then more than $800 million could be returned to the Houston economy in earnings and tax receipts.

Morbidity

The World Health Organization quantifies the indirect costs of mental illness using Disability Adjusted Life Years (DALYs). DALYs are a metric of the burden of disability and premature death resulting from a full range of mental and physical disorders (Geballe, 2001; Murray and Lopez, 1996). Using this measure, all mental disorders in the United States account for more than 15 percent of the overall burden of disease from all causes. **Mental disorders account for slightly more than the total disease burden associated with all forms of cancer** (Murray and Lopez, 1996). In addition, major depression, bipolar disorder, schizophrenia and obsessive-compulsive disorder were identified as among the top 10 leading causes of disability worldwide (Murray and Lopez, 1996).

People with SMI tend to overuse expensive medical treatments and under-use preventive health care. They have high use of emergency services related to problems with their physical health (Salisberry, Chipps and Kennedy, 2005; Hackman, 2006). People with SMI access fewer routine preventive health services (Druss, Rosenheck, Desai, et al., 2002), have lower rates of cardiovascular procedures (Druss, Bradford, Rosenheck, et al., 2000), and receive lower quality diabetes care than the general population (Parks, Svendsen, Singer, et al., 2006; Desai, Rosenheck, Druss, et al.; 2002, Frayne 2006).

Premature death

Over 15 percent of indirect costs are related to mortality costs, or loss of productivity due to premature death (Department of Health and Human Services, 1999). **People with SMI die on average 25 years earlier than the general population, and their expected life span is growing ever shorter** (Parks, Svendsen, Singer, & Foti, 2006). Between 30 percent and 40 percent of the excess mortality is due to suicide and injury. Over 60 percent of premature deaths in people with schizophrenia are due to preventable medical conditions (Parks, Svendsen, Singer, & Foti, 2006).

Family Support Costs

Several authors have studied the out-of-pocket costs to family members of those with severe and persistent mental illness and found that an average annual expense for the family is $6,331 when adjusted for inflation (Franks, D.D, 1990; McGuire TG, 1991; Clark and Drake, 1994). Given that there are approximately 181,000 people in Houston with SMI, this could amount to an annual outlay of $1.15 billion out-of-pocket dollars by their families and loved ones. Additionally, there is a substantial commitment of time by family members in supporting their loved ones with SMI. One study (Clark and Drake, 1994) surveyed involved family members and found that the average time consumed in care-giving for the affected family member was almost 14 hours per week, or the equivalent of one third of a full-time job.[4]

Juveniles and Juvenile Justice Issues

Chronic mental illness often begins in adolescence. Fifty percent of adults diagnosed with mental illness show symptoms of mental disorder by age 14, 75 percent by age 24. Dr. Thomas Insel (Director of the National Institute of Mental Health) has said, “Mental disorders are the chronic illnesses of youth.”

[4] The study in question surveyed family members of those with the dual diagnosis of SMI and substance use disorders. The findings are relevant, however, in that the authors found that family members actually spent less time providing care for their impaired relative when the relative was actively using alcohol and/or drugs. One possible interpretation of this finding is that the time commitment referenced herein is actually an underestimate of the actual time spent caring for loved ones with SMI, but without substance-use disorders.

As noted in Chapter II, there are approximately 25,400 adolescents with severe mental illness in Houston. Over 14,000 of these cannot access public or private mental health services. Untreated, they often have difficulty in school and have an increased likelihood of becoming involved with the juvenile justice system.

Adolescents with mental illness are several times more likely than their non-ill peers to be involved with the juvenile justice system. This fact remains true even when conduct disorders* are eliminated from identified mental disorders.

Forty-nine percent of the 16,000 adolescents in the Harris County Juvenile Probation Department in a given year have a mental illness (Mental Health Needs Council Report, 2009). Unfortunately, access to appropriate care is frequently a concern. While most of these adolescents require psychiatric medication, only half are eligible for follow-up treatment in the public system. Unable to get appropriate timely treatment, many of these adolescents develop more severe mental illness and often move into adulthood graduating from the juvenile justice system to the adult criminal justice system.

Mental health treatment could have diverted many of these adolescents from involvement in the juvenile justice system. Local research (Hickey, 2008) indicates that about one-fourth of the youths in the juvenile justice system have been or will be served by the public mental health system. When records from the public mental health system (about 300,000 records obtained between 1992 and 2006) were matched with juvenile probation data (about 100,000 records obtained between 1990 and 2006), just under 25 percent or about 25,000 children and adolescents were present in both data sets. Outcomes for these children appear to be superior if mental health treatment is provided early. Children entering public social service agencies through the mental health portal were compared to children first served by the Juvenile Justice system on ten variables, all indicators of juvenile justice recidivism. These variables include the number and severity of subsequent charges. The children and adolescents who first entered

* Conduct disorders are associated with symptoms of inappropriate behavior. Their elimination from an assessment of the prevalence of mental illness in the juvenile justice system serves to indicate the substantial degree of other types of mental illness.

the mental health system fared significantly better on all ten outcome indicators. Juvenile justice recidivism appears to be minimized when youths are identified early and treated first with mental health care.

Incarceration

The United States has 5 percent of the world's population, and 25 percent of the world's incarcerated population (Liptak, 2008). People with SMI are 12 times more likely to be incarcerated than the general population (Hickey & Nguyen, 2007). The Harris County Jail contains more people with mental illness than any other facility in Texas. Every month more than 2,400 of the 9,500 inmates in the Harris County jail are treated for a mental illness, making it the largest mental health care facility in the state (MHMRA, 2009). Jail is an expensive way to treat people with mental illness. It costs $65 a day to house an inmate; it costs $132 a day to house an inmate in the jail's mental health unit (Arnold, 2008). This expenditure does not include medication, transport and court costs. Using conservative cost estimations (Harris County Office of Budget Management, "Estimated Harris County Jail Detention Costs," December 2008), **the annual cost of caring for the County's incarcerated people with mental illness exceeds $48,000,000.** These costs are more than twice as high as the cost of outpatient care to these same people (Hickey, J. S. & Nguyen, T. D., 2007).

People with mental illness who receive treatment are no more aggressive than people without mental illness. However, untreated people with severe mental illnesses (schizophrenia, depressive and bipolar disorder) are two to three times as likely as people without such illnesses to be assaultive (Friedman, 2006). While the majority of people with mental illness in jail are incarcerated for non-violent offenses, a lack of treatment and under-treatment are the causes of avoidable assaultive behavior. On average, inmates with a mental illness serve more of their sentences than do those without mental illness (Ditton, 1999). Furthermore, people with mental illness spend more time in jail than non-mentally-ill offenders (Nguyen, 2005).

There is a relationship between the amount of accessible mental health services in a community and the prevalence of mental illness in that community's criminal justice system.

There is a causal relationship between Houston's insufficient mental health service system and the high rate of mental illness in the Harris County jail as mentioned above. Many of the people with mental illness in our jail are there for non-violent offenses. A larger mental health service system would divert many of these people from expensive non-therapeutic incarceration (Abramson, 1972).

Housing and Homelessness

People with SMI who become homeless have difficulty accessing healthcare. The lack of a permanent address, complicated eligibility requirements and daily struggles with their untreated mental illness are barriers to accessing primary care. This ultimately leads to use of higher-cost services such as emergency departments and inpatient care (SAMHSA, 2003). Culhane and colleagues (2001) have estimated that these costs are in excess of $28,000 per homeless person per year.

Mental Health America of Greater Houston noted in its 2004 Housing Task Force Report that "no formal data currently exist to document unmet housing needs for individuals with mental illness." In preparing that document, one of the current authors extrapolated from national and local data, estimating that approximately 14,000 people with mental illness in Harris County currently have critical unmet housing needs. This number included not only homeless people but also people who were "under-housed" (i.e., living in unacceptable conditions), people unable to achieve independence from their families because of the need for shelter and people who migrate in and out of the criminal justice system.

The cost of providing permanent, supportive housing for people with SMI is virtually offset by savings incurred by reductions in costs in public hospitals, prisons, jails and shelter systems (Culhane, Metraux and Hadley, 2001; SAMHSA, 2003). Without proper treatment, people with SMI who are homeless often cycle through the streets, jails and high-cost care, including emergency room and psychiatric hospital care (SAMHSA, 2003). Homeless people with SMI, once thought to be unreachable and not easily treated, have been **found to be quite responsive to mental health treatment resulting in more stable housing** arrangements (Rosenheck, Morrisey, Lam et al., 1998; SAMHSA, 2003).

Life on the streets greatly exacerbates many necessities of a healthy existence. As this graphic illustrates, homelessness sets into motion a descent into increasing instability and ill health. Mental illness is both a cause and a confounding element in homelessness.

Consequences

Insufficient mental health services negatively impact:

- Productivity
- Earnings
- Houston's economy
- Premature deaths
- Family budgets
- Juvenile justice involvement
- Criminal justice involvement
- Homelessness

In spite of all the problems outlined above, we know how to improve Houston's mental health services. We know how to create a seamless, effective service system. We know about best practices in clinical treatment and service administration. This knowledge could, together with our many great strengths, transform our mental health service system for the benefit of all Houstonians.

V. COMPREHENSIVE COMMUNITY MENTAL HEALTH SERVICES, PRINCIPLES, GOALS AND IDEALS

This report has described the inadequacies of Houston's public mental health service system. While sufficient services may exist for those who can pay for them, Houston does not have the capability to serve many indigent people with mental illness. Future reports (see Appendix) will address the critical mental health policy questions which confound our current service system's operation. These questions present complex dilemmas for which there are no simple solutions. There is, however, a wealth of knowledge describing the nature of what a comprehensive community mental health service system should consist of, and how it should function. Consensus now exists on what we should do (i.e., best practices). Much controversy remains on how best practices should be prioritized, implemented and funded. The following is an overview of some broad areas of consensus.

The origin of contemporary mental health service delivery best practices can be traced to the federal passage of the Community Mental Health Center Act (PL 88-164) in 1963. This Act established certain basic service guidelines in order to receive federal funding. These guidelines have been refined and expanded over the past four decades (Schnapp, 2005). The initial guidelines included the following six characteristics:

1. Services should be delivered as close to a person's own community as possible. No longer should a large mental institution (usually located far from one's home) be the primary focus of service delivery.
2. Services should be delivered to a discrete, manageable, targeted service area (i.e., catchment area).
3. Services should be comprehensive and include at least the following five services: inpatient, outpatient, emergency (or crisis), partial hospitalization (day programs) and community consultation and education. Additional recommended services include diagnostic, rehabilitation, pre-admission and post-discharge services for hospitalized patients and the academic activities of research and education. Later the Act

recommended specialized services for children, the elderly and for people in need of chemical dependency programs.
4. Services should be linked together to form a continuum to promote easy access from service to service.
5. Services should have continuity for the flow of information across service lines.
6. Services should have oversight by state and local mental health authorities to plan and coordinate funding and service delivery.

The six guidelines above framed the foundation for the early implementation of community mental health services. Guidelines that followed included:

1. People with mental illness should be viewed as ‘consumers’ of service who deserved respect and inclusion in all aspects of service planning and delivery.
2. The service delivery system should provide case management services to assist consumers in service access and treatment.
3. The system should strive for cultural sensitivity to ensure appropriateness and effectiveness of treatment.
4. Elements of the delivery system should engage in interagency collaboration to promote service coordination.
5. The system should be monitored for cost-effective service delivery to maximize the use of funding.
6. The healthcare system should be integrated, providing for the co-location of mental health services with other health and social services to promote ease of access and service coordination.

These 12 guidelines collectively comprise the standard community mental health service delivery model. The degree to which a community implemented these elements determined the level of its effectiveness in mental health service provision.

In 2003, President Bush’s New Freedom Commission on Mental Health issued its report “Achieving the Promise: Transforming Mental Health Care in America.” The report contained the following six goals. It stated that:

"In a Transformed Mental Health System

1. Americans Understand that Mental Health is Essential to Overall Health
2. Mental Health Care is Consumer and Family Driven
3. Disparities in Mental Health Services are Eliminated
4. Early Mental Health Screening, Assessment, and Referral to Services are Common Practice.
5. Excellent Mental Health Care is Delivered and Research is Accelerated
6. Technology is used to Access Mental Health Care and Information."

While each of these goals is laudable, sufficient funds for their implementation was not made available. Only five states were provided with any funds with which to transform their mental health service systems. Texas was one of these states. There is general agreement that this level of funding would only enable a limited number of small pilot programs. Despite this fact, the report's goals represent important policy directives.

In response to this Commission's report, an important commentary (Manderscheid, 2004) containing a "vision for a good community care system" was published. This vision contained the following six principles:

- "The linkage between the community care system and its surrounding community should be seamless.
- Access to the community care system should be based on need and not upon available insurance benefits.
- The community care system should reflect efforts to improve care on a continuous basis and should be accountable to the community through appropriate performance measures.
- The community care system should promote change as new service modalities are developed.
- The community care system should encompass a full range of services necessary to promote community tenure and participation by consumers.
- Of greatest importance, human concerns should be paramount in the community care system."

These six principles expand upon the New Freedom Commission's goals by calling attention to: 1) organizational issues ("seamless"), 2) service access (priority "based upon need"), 3) continuous quality improvement ("performance measures"), 4) new and best practices ("new service modalities"), 5) service comprehensiveness ("a full range of services"), and consumer importance ("human concerns"). These principles amplify the goals of the Commission and also link back to the community mental health service delivery guidelines that have been developed over the past 40 years.

Based upon the above guidelines, goals and principles, the following are the characteristics of an ideal mental health system.

1. An ideal mental health service system possesses **evidence-based clinical expertise** in mental health and chemical dependency service delivery and treatment.
2. An ideal mental health service system contains a **comprehensive array of clinical and social support services**. Major services include crisis, inpatient, day programs, outpatient, medication, case management, psychotherapy, counseling, rehabilitation, drop-in centers and supported housing.
3. An ideal mental health service system possesses **sufficient capacity** to provide the comprehensive services necessary to effectively meet the needs and promote recovery of people with psychiatric illnesses.
4. An ideal mental health service system is **coordinated by a local organizational entity that is singularly committed to the oversight of mental health service system** needs and services.
5. An ideal mental health service system **provides early intervention** and support services that **promote recovery and wellness** to minimize the need for crisis services.
6. An ideal mental health service system is **sensitive to the needs, wishes and input of consumers and their families**.
7. An ideal mental health service system is **fully coordinated and integrated with primary health services**, school, private hospitals, juvenile and adult justice systems and generic social services systems.
8. An ideal mental health service system is **sufficiently funded** to provide the services necessary to accomplish this mission.

9. Ideal mental health service systems have **protected funding streams** that are carved out from funding streams for generic health services.
10. An ideal mental health service system **continually seeks and acquires funding** from multiple sources including public, federal, state, local tax-generated funds together with funding from private insurance and grants from philanthropic organizations.
11. Ideal mental health service systems **prioritize access to treatment services on the basis of severity and need and not on the availability of CHIP, Medicaid and/or insurance benefits**.

Houston has made significant progress in building and operating a mental health system that aspires to these ideals. However, insufficient funding and unresolved federal and state policy dilemmas prevent our efforts to serve many Houstonians with severe mental illness. A positive resolution of major policy issues and increased service capacity will greatly advance our efforts to completely realize these ideals.

VI. MENTAL HEALTH NEEDS

Clearly Houston is under-resourced in mental health services. The consequences of this are numerous and substantial for people with mental illness, their families, and the citizenry of Houston as a whole. An increase in mental health services would remedy many of the problems now faced by Houstonians. This increase would result in greater access to private and public (CHIP, Medicaid, Medicare) insurance. Large appropriations of public dollars from federal, state and local sources are necessary. Coordinated gifts from multiple philanthropic institutions are necessary as well. Investment in mental health services will produce cost savings in other public dollars, while increasing the number of income-producing people in Houston.

Primary **service recommendations** to address Houston's most immediate needs include:

- Increased early intervention services for children and adults
- Increased school-based services for children to promote early identification and easy access to treatment

- Increased housing and special residential services
- Increased rehabilitation services for adults of all ages

Primary **administrative recommendations** to address Houston's most immediate needs include:

- Fully coordinated mental health services delivered collectively by the Mental Health and Mental Retardation Authority of Harris County, the Harris County Hospital District, the UT Harris County Psychiatric Center, and the Veteran's Administration together with the City and County Departments of Health;
- Integrated joint strategic planning by these agencies;
- Fully coordinated mental health service system with K-12 school-based services;
- Fully coordinated mental health service system and the juvenile and criminal justice system services; and,
- Integration of mental health and substance abuse services.

Timely and substantial implementation of the above funding and administrative recommendations would positively affect the citizenry and economy of Houston.

VII. CONCLUSION

This report has shown that the unmet mental health service needs in Houston are great. Many severely ill people receive no services whatsoever. The direct results of this are increases in the severity of illness, homelessness, unnecessary criminal justice involvement and loss of income and productivity. While over one-third of Houstonians are directly involved with a person with severe mental illness, virtually all Houstonians are negatively impacted by an insufficient mental health service system.

While the weaknesses of Houston's mental health services are great, our strengths are substantial. We have one of America's largest community mental health centers. We have the worlds' largest medical center. Both of our medical schools have outstanding Psychiatry departments. The University of Houston provides excellent training in Clinical Psychology and Social Work. All these academic institutions are involved in research into the causes and treatments of mental illness.

Houston's public mental health system has been recognized for its mental health crisis services, its multifaceted interface with the criminal and juvenile justice systems and its innovative academically based psychiatric inpatient center (the UTHCPC). Additional strengths include its advocacy organizations, the Houston Police Department's Crisis Intervention Teams and the Mental Health Needs Council (a nationally recognized collaboration of all Houston's major mental health leaders).

Houston's unmet mental health service needs are great. Houston's distinguished record of innovative accomplishments combined with its diverse economy indicates that with greater more broad-based support we can successfully meet the challenge of addressing the mental health needs of all Houstonians.

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APPENDIX

Future Reports of the Mental Health Policy Analysis Collaborative

The Collaborative will address the following six questions over the next two years.

1. How do federal, state, county, and city funding policies and directives define Houston's mental health service system? The structure, capacity and priorities of the local mental health service system are largely dictated by policies originating in Washington and Austin. A clear understanding of this system requires extensive knowledge of at least Medicaid, Medicare, State general revenue policies concerning the state hospital bed trust fund and the community center performance contract process as well as local County and City funding directives. A detailed financial map of the local mental health system would greatly inform all discussions on cost-benefit analysis issues, policy and potentially needed system changes.
2. What are the clinical and social consequences of Texas' current legislatively mandated mental health service system rationing policies? Questions involving service access and the nature and quantity of services provided are largely addressed in Texas policies concerning the Target Population and Resiliency and Disease Management. What are the goals of these policies? What are their costs and benefits? Do they promote access to treatment or hinder it? Have service waiting lists increased or decreased over the past ten years? Do mental health centers comply with these policies? Do these policies accomplish their legislative goals? The answers to these questions will greatly inform the public dialog on mental illness in Texas.
3. Does mental health treatment of juvenile justice-involved adolescents with mental illnesses influence long-term recidivism into young adulthood? Can early detection of mental illness lead to intervention that can curtail criminal justice involvement? The majority of youths involved in the juvenile justice system have diagnosable mental illnesses and one-fourth or more suffer significant serious emotional disorders. Using entry into the juvenile justice system as the focal point, we will look backward at school disciplinary and special-education activity to identify early indicators, at treatment in the mental health system as a moderator of "career path"—and subsequent juvenile and young adult criminal records as outcome variables. A ten-year retrospective analysis

would inform policy discussion on the cost and benefits of clinical, educational, and judicial interventions.

4. What will be the impact of Post Traumatic Stress Disorder (PTSD) in Houston over the next five to ten years and what mental health services and policies are necessary to address this population's needs? The nature and longevity of the war in Iraq is producing and will continue to produce an increase in the incidence of PTSD in Houston. Presently the public mental health system is ill prepared to meet this relatively new challenge. A report containing a prevalence analysis, needs assessment and policy recommendations would greatly facilitate our preparations to meet the psychiatric needs of returning veterans.
5. Are people with insurance (private or public Medicaid) treated differently from their uninsured peers in the public mental health system? Preliminary studies suggest that people with insurance have better outcomes in the public indigent mental health service system. Such a study would inform both the legislature and the public on future priorities and policies.
6. How can the primary healthcare system and the mental health system be better coordinated and integrated to improve the mental health of Houstonians? Many people with mental illness, diagnosed and undiagnosed, receive services in primary-care settings. It is possible that many more could be treated in these settings. An analysis of Houston's current resources coupled with information on best practices for integrating primary and specialized mental health services could expand our treatment capacity.

Each of the above six reports will receive wide distribution. The report authors will avail themselves to individuals or groups who have questions and/or wish to discuss these areas in greater detail.

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