

## *Mental Health Diagnoses in the Prison Population*

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### **PURPOSE**

The North Carolina Division of Prisons has the responsibility to deliver comprehensive mental health services which provide for the care and treatment of inmates with mental disorders. Recent estimates of mental health disorders in the non-institutionalized population suggest that more than 1 in 4 Americans (26.2%) could be diagnosed with a mental disorder in any given year.<sup>1</sup> The estimated figure for mental health disorders in persons incarcerated in state prisons is more than double the national estimate (56%) and nearly triple for female inmates (73%).<sup>2</sup>

Delivery of mental health services is a growing concern for corrections officials, legislators and treatment providers. Growth in the prison population combined with the need for mental health services, particularly in the female population, is expected to increase the demand for mental health treatment within North Carolina's prison system. This memo provides summary statistics on the mental health disorders observed in the resident prison population and examines disparities between mental health disorders in the male and female populations.

Given that most inmates eventually exit prison, these numbers are also relevant to treatment providers and community corrections professionals. The release of inmates with mental health problems into the community raises concerns about the need for continued treatment and supervision in order to protect the individual and the communities to which they return.<sup>3</sup>

### **GROWTH OF MENTAL HEALTH DISORDERS IN PRISON POPULATION 2002-2006<sup>4</sup>**

The Division of Prisons uses a mental health grading system that classifies the severity of the inmates' mental health disorders. Inmates are given a score of M1-M5, indicating a range of no mental health disorder (M1) to acutely ill or suicidal (M5). Over the past five calendar years, growth in the numbers of inmates with a mental health condition has outpaced growth in the overall prison population.

Over the past five years, a steady increase has occurred in the number of inmates diagnosed with severe and persistent mental disorders (M3) and inmates who are acutely mentally ill or suicidal (M5). Growth in the number of inmates with a significant mental disorder manifesting symptoms that require ongoing intervention (M4) has fluctuated between 2002 and 2006 with some negative growth observed. On average, the Department has had approximately 400 more inmates per year

<sup>1</sup> National Institute of Mental Health. (2006). The Numbers Count: Mental Disorders In America. Retrieved July 26, 2007, from <http://www.nimh.nih.gov/publicat/numbers.cfm>

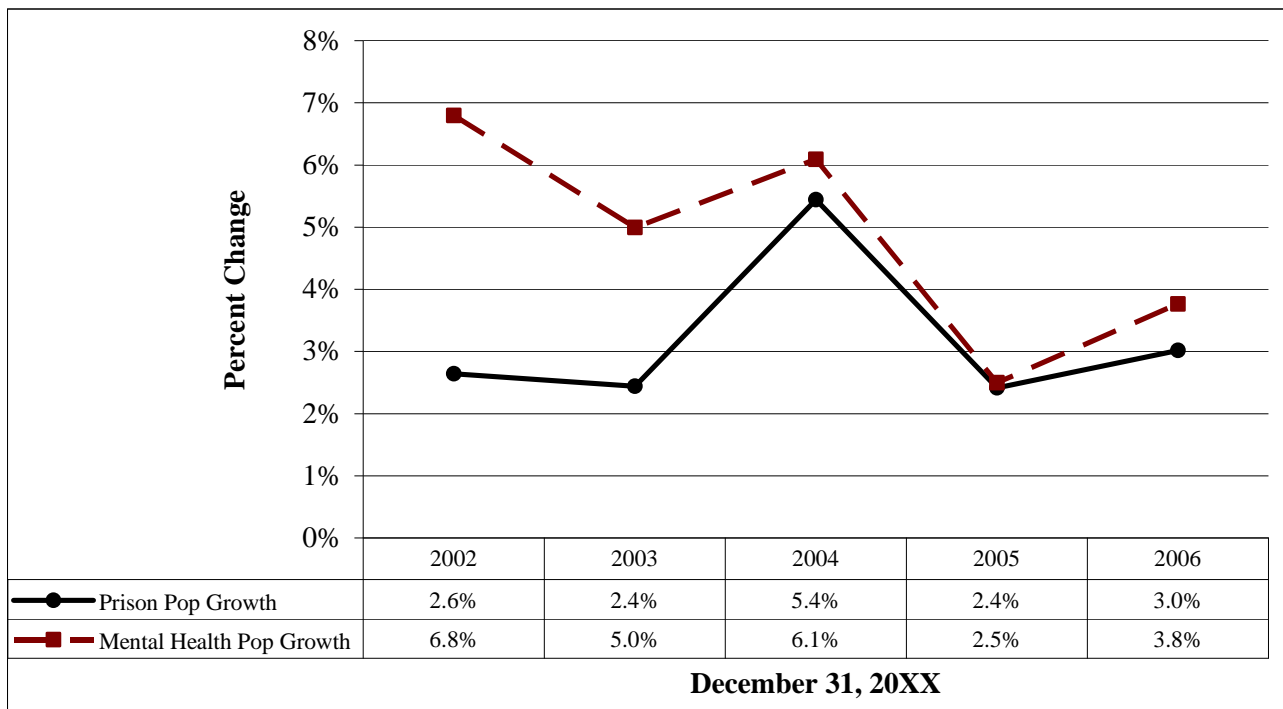
<sup>2</sup> James, D.J. & Glaze, L.E. (2006). Mental Health Problems of Prison and Jail Inmates. Retrieved July 26, 2007, from <http://www.ojp.usdoj.gov/bjs/pubs/pdf/mhppji.htm>

<sup>3</sup> Wolff, N. (2005). Community reintegration of prisoners with mental illness: A social investment perspective. *International Journal of Law and Psychiatry*, 28, 43-58.

<sup>4</sup> All statistics and figures refer to the population on December 31<sup>st</sup> of the referenced year.

in prison at years end with a mental health issue than would be expected by growth in the population alone.<sup>5</sup> Figure 1 shows the percentage change in the mental health population at the end of each calendar year compared to the change in prison population over the same time period.<sup>6</sup>

**Figure 1: Growth in Mental Health Population Compared to Growth in Prison Population: Calendar Year End 2002 through 2006**



Though the percentage of inmates with a mental health concern has been somewhat less than national estimates for both male and female inmates over the time period, the number of inmates with a mental health concern has increased each year.<sup>7</sup> One reason for this discrepancy is the method by which the estimates were obtained. The Bureau of Justice Statistics counted inmates with “symptoms of a mental health problem” in their estimates of mental health disorder prevalence while the figures provided in this memo rely solely on diagnosed disorders.<sup>8</sup> Table 1 presents the counts and proportions of inmates in prison with a mental health concern (score of M2, M3, M4 or M5) and those with no mental health issue (score of M1) by gender and year.

<sup>5</sup> The calculation assumes that inmates with a mental health condition spent approximately the same time in prison as do inmates with no mental health concerns and therefore inmates with mental health concerns are not expected to become more concentrated in the year end population. It also assumes no external influence on the likelihood that individuals with mental illness will enter the prison system.

<sup>6</sup> December 31, 2001 is used as the reference year for percent change in 2002 figures.

<sup>7</sup> Though an inmate may be seen multiple times over the course of a year, the last mental health score on record prior to the last day of the year was used to establish a consistent point of comparison.

<sup>8</sup> James, D.J. & Glaze, L.E. (2006). Mental Health Problems of Prison and Jail Inmates. Retrieved July 26, 2007, from <http://www.ojp.usdoj.gov/bjs/pubs/pdf/mhppji.htm>

**Table 1: Mental Health Status of Inmates in Prison at Year End: 2002-2006<sup>9</sup>**

Calendar Year End: December, 31 20xx	MH CONCERN Female	NO MH ISSUE Female		MH CONCERN Male	NO MH ISSUE Male
2002	1,249 56.9%	948 43.2%		9,035 29.2%	21,866 70.8%
2003	1,314 57.2%	983 42.8%		9,469 30.0%	22,143 70.0%
2004	1,474 59.8%	992 40.2%		9,949 29.9%	23,338 70.1%
2005	1,539 58.5%	1,091 41.5%		10,166 29.9%	23,814 70.1%
2006	1,580 58.1%	1,141 41.9%		10,553 30.2%	24,450 69.8%

Overall, the percentage of inmates with a mental health concern has increased slightly over the five year period (31% in 2002 compared to 32.2% in 2006). The growth is driven largely by slow but steady increases in the male population with mental health concerns. The percentage of female inmates with a mental health concern has decreased slightly in each of two most recent years, but has remained well over 50% in each year. Comparatively, the percentage of female inmates with a mental health concern has consistently outpaced those found in the male population (five year averages of 58.1% and 29.8%, respectively).

### **CATEGORIES OF MENTAL HEALTH DISORDERS IN THE PRISON POPULATION ON 12/31/2006**

Of the 27,680 diagnoses that were observed for inmates with a diagnosis, personality disorders were most frequent (29.5%), followed by mood disorders (20.8%), and adjustment disorders (14.6%). Mood disorders and adjustment disorders were more frequently observed in female inmates, while male inmates were more likely to be diagnosed with personality disorders, sexual and gender identity disorders, and other conditions.

More than a quarter (27.4%) of the diagnoses were for disorders that are considered serious mental illnesses (SMI).<sup>10</sup> Diagnoses of an SMI were made for 5,513 inmates (14.8% of the prison population). Females (704 inmates) accounted for 12.8% of the SMI population. While this figure is essentially unchanged from the figure (12.7%) for the population in 2001, the number of female inmates diagnosed with a SMI at some point during their time in prison is substantially higher. Table 2 shows diagnosis classification for the inmate population by gender.

<sup>9</sup> The figures presented do not consider inmates that may have been in prison during the course of the year, but exited prior to the last day of the year. This approach may underestimate the total number of inmates with a mental health issue that have been touched by the Division over the course of a calendar year.

<sup>10</sup> Diagnoses that are categorized as SMIs are determined by the North Carolina Department of Health & Human Services. These illnesses are under the heading of Schizophrenia and Other Psychotic Disorders and Mood Disorders.

**Table 2: Mental Health Diagnoses by Diagnostic Category by Gender**

Diagnosis Group	Count		Percent	
	Female	Male	Female	Male
Disorders of Infancy, Childhood or Adolescence	73	1,200	2.7%	4.8%
Delirium, Dementia & Amnestic and Other Cognitive Disorders	2	90	0.1%	0.4%
Mental Disorders Due to General Medical Condition	2	59	0.1%	0.2%
Schizophrenia & Psychotic Disorders	70	1,758	2.6%	7.0%
Mood Disorders	811	4,943	30.5%	19.8%
Anxiety Disorders	271	1,571	10.2%	6.3%
Somatoform Disorders	9	59	0.3%	0.2%
Factitious Disorders	1	13	0.0%	0.1%
Dissociative Disorders	0	24	0.0%	0.1%
Sexual & Gender Identity Disorders	15	490	0.6%	2.0%
Eating Disorders	10	5	0.4%	0.0%
Sleep Disorders	5	354	0.2%	1.4%
Impulse-Control Disorders Not Otherwise Specified	16	520	0.6%	2.1%
Adjustment Disorders	572	3,460	21.5%	13.8%
Personality Disorders	651	7,502	24.5%	30.0%
Unspecified Mental Disorder (Non psychotic)	1	13	0.0%	0.1%
Other Conditions	147	2,963	5.5%	11.8%
<b>Total Diagnoses</b>	<b>2,656</b>	<b>25,024</b>	<b>100.0%</b>	<b>100.0%</b>

**MULTIPLE AND CO-OCCURRING DISORDERS IN THE PRISON POPULATION ON 12/31/2006**

Of inmates with at least one diagnosis found in the database, 40.1% had more than one type of disorder diagnosed (e.g., Borderline Personality Disorder and Adjustment Disorder with Anxiety).<sup>11</sup> This figure is relatively consistent with estimates made by the National Institute of Mental Health (45%) for the general population of individuals with any disorder.<sup>12</sup> Female inmates were more likely than male inmates to have multiple diagnoses. Table 3 presents the counts and percentages of inmates with multiple diagnoses for the 13,156 inmates with at least one diagnosis.

**Table 3: Inmates With More Than One Mental Health Disorder Diagnosis by Gender**

Gender	Multiple Mental Health Disorder Diagnoses		Total
	Yes	No	
Female	652 46.0%	766 54.0%	1,418 10.8%
Male	4,623 39.4%	7,115 60.6%	11,738 89.2%
<b>Total</b>	5,275 40.1%	7,881 59.9%	13,156 100%

<sup>11</sup> Multiple diagnoses from the same type of disorder were not counted multiple times (i.e., an inmate with both Antisocial Personality Disorder and Narcissistic Personality Disorder was counted only once as a diagnosis for a personality disorder). Inmates with Substance Abuse Disorders (DSM-IV criteria) were not counted because mental health staff do not routinely assess for these disorders.

<sup>12</sup> National Institute of Mental Health. (2006). The Numbers Count: Mental Disorders In America. Retrieved July 26, 2007, from <http://www.nimh.nih.gov/publicat/numbers.cfm>

Inmates with mental health disorders appear much more likely than other inmates to suffer from substance abuse problems.<sup>13</sup> The existence of both mental health and substance abuse disorders is a source of concern for substance abuse treatment and mental health professionals as well as corrections professionals. Untreated or unrecognized mental health disorders may lead to relapse or require specialized treatment programs which require significant new or modified resources.<sup>14</sup> The Department screens inmates for both mental health disorders and substance abuse problems, and uses interdisciplinary communication and case management to identify individuals in need of specialized services.

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<sup>13</sup> James, D.J. & Glaze, L.E. (2006). Mental Health Problems of Prison and Jail Inmates. Retrieved July 26, 2007, from <http://www.ojp.usdoj.gov/bjs/pubs/pdf/mhppji.htm>

<sup>14</sup> Center for Substance Abuse Treatment. *Substance Abuse Treatment for Adults in the Criminal Justice System*. Treatment Improvement Protocol (TIP) Series 44. DHHS Publication No. (SMA) 05-4056. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2005.