

Detecting Mental Disorder in Juvenile Detainees: Who Receives Services

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The most recent annual estimates from the US Department of Justice show that there were 2.2 million juvenile arrests in 2003¹ and approximately 1.1 million individuals referred to juvenile courts (Melissa Sickmund, PhD, National Center for Juvenile Justice, e-mail communication, July 21, 2005). More than 104 000 juveniles are held in juvenile placement facilities on a given day.² Over 60% are racial/ethnic minorities.² Epidemiological studies estimate that between two thirds and three quarters of detained youths have 1 or more psychiatric disorders.^{3,4} More than 15% of detained youths have major mental disorders (e.g., affective disorders, psychosis) and associated functional impairments.^{3,4}

By law, youths with serious mental disorders must receive mental health treatment while incarcerated.⁵⁻⁷ Federal courts have affirmed that detainees with serious mental disorders have a right to receive needed treatment as part of the state's obligation to provide needed medical care under the US Constitution's Eighth Amendment (barring cruel and unusual punishment) and Fourteenth Amendment (right to substantive due process for youths in the juvenile justice system) (e.g., *Estelle v Gamble*, 1976⁸; *Ruiz v Estelle*, 1980⁹; *Madrid v Gomez*, 1995¹⁰; *Bowring v Godwin*, 1977¹¹). Despite the legal mandate, recent reports issued by the surgeon general¹² and the President's New Freedom Commission on Mental Health^{5,13} suggest that juvenile detainees are a profoundly underserved population.

There are few empirical studies of the treatment provided to juvenile detainees. Although many studies have investigated detainees' history of treatment,¹⁴⁻²¹ their current need for mental health treatment,^{3,15,16,18,19,22-25} and the availability of treatment,²⁶ this is the first large-scale prospective study to examine whether detained youths who need mental health treatment receive it (in either the de-

Objectives. We determined whether or not juvenile detainees with major mental disorders received treatment, and the variables that predicted who received services.

Methods. Our sample was 1829 randomly selected juvenile detainees taking part in the Northwestern Juvenile Project. To determine need for mental health services, independent interviewers administered the Diagnostic Interview Schedule for Children and rated functional impairment using the Child Global Assessment Scale. Records on service provision were obtained from the juvenile justice and public health systems.

Results. Among detainees who had major mental disorders and associated functional impairments, 15.4% received treatment in the detention center and 8.1% received treatment in the community by the time of case disposition or 6 months, whichever came first. Significantly more girls than boys were detected and treated. Receiving treatment was predicted by clinical variables (having a major mental disorder or reported treatment history or suicidal behavior) and demographic variables.

Conclusions. The challenge to public health is to provide accessible, innovative, and effective treatments to juvenile detainees, a population that is often beyond the reach of traditional services. (*Am J Public Health*. 2005;95:1773-1780. doi:10.2105/AJPH.2005.067819)

tion center or the community) before disposition of their cases. We investigated 2 questions: (1) What proportions of juvenile detainees with major mental disorders are detected and treated? (2) Which variables predict who receives services?

METHODS

Participants and Sampling Procedures

Participants were 1829 boys and girls, aged 10 to 18 years, randomly sampled at intake into the Cook County Juvenile Temporary Detention Center from November 1995 through June 1998. The sample was stratified by gender, race/ethnicity (African American, non-Hispanic White, Hispanic), age (aged 10 to 13 years or 14 years and older), and legal status (processed as a juvenile or as an adult). All detainees younger than 17 years are held at Cook County Juvenile Temporary Detention Center, including youths processed as adults (automatic transfers to adult court). Youths may be detained in the Cook County Juvenile

Temporary Detention Center until they are 21 years of age if they are being prosecuted for an arrest that occurred when they were younger than 17 years.

Detainees were eligible to be sampled regardless of their psychiatric morbidity, state of drug or alcohol intoxication, or fitness to stand trial. Within each stratum of gender, race/ethnicity, age, and legal status, we used a random-numbers table to select names from Cook County Juvenile Temporary Detention Center's intake log. The final sampling fractions ranged from 0.018 to 0.689. (Additional information on the sample is available elsewhere.^{4,27})

Studying detained youths requires special procedures because they are minors, they are detained, and many do not have a parent or guardian who can provide appropriate consent.²⁸ Project staff approached potential participants on their units, explained the project, and assured potential participants that anything they said (except acute suicidal or homicidal risk) would be confidential.

Participants signed an assent form (if they were younger than 18 years) or consent form (if they were aged 18 years). Federal regulations allow parental consent to be waived if the research involves minimal risk (45 CFR §46.116(c), 45 CFR §46.116(d), and 45 CFR §46.408(c)).²⁸ We nevertheless attempted to contact parents to provide them with information and an opportunity to decline participation. (Additional information on assent and consent procedures is available elsewhere.^{4,27})

Of the 2275 names selected, 4.2% (34 youths and 62 parents or guardians) refused to participate. There were no significant differences in refusal rates by gender, race/ethnicity, or age. We did not interview 339 youths because they left the detention center before we could do so. Eleven others were excluded: 9 became physically ill during the interview and could not finish it,

1 was too cognitively impaired to be interviewed, and 1 appeared to be lying. The final sample size was 1829. This number allowed us to reliably detect (i.e., distinguish from zero) characteristics that had a base rate in the general population of 1.0% or greater with a power of 0.80.²⁹ Table 1 presents the unweighted demographic characteristics of our sample.

Need for Mental Health Treatment

We define need for mental health treatment conservatively: a youth was considered to need treatment if he or she met criteria for a major depressive episode, manic episode, or psychosis within the past 6 months *and* had impaired functioning. To determine diagnosis, we used version 2.3 of the Diagnostic Interview Schedule for Children (DISC),^{30,31} the most recent English and Spanish versions

then available. The DISC 2.3 assesses the presence of psychiatric disorders in the past 6 months, as defined by the *Diagnostic and Statistical Manual of Mental Disorders, Revised Third Edition (DSM-III-R)*,³² and is highly structured, contains detailed symptom probes, has acceptable reliability and validity,^{30,33–37} and requires relatively brief training. Impaired functioning was defined as having a score of 60 or lower on the Children's Global Assessment Scale.³⁸ The interviewers filled out the scale after the interview.

Participants were interviewed in a private area, almost always within 2 days of intake. Most interviews lasted 2 to 3 hours, depending on how many symptoms were reported. We used both male and female interviewers. Girls who participated were always interviewed by female interviewers. Interviewers were trained for at least 1 month; most had a master's degree in psychology or an associated field and experience interviewing high-risk youths. One third of our interviewers were fluent in Spanish. We maintained interviewer consistency throughout the study by monitoring scripted interviews with mock participants.

Service Utilization

To determine service utilization, we examined records from juvenile justice and public health agencies. A participant was considered *detected* if records indicated a recommendation, referral, or judicial sentence that included mental health services. A participant was considered *treated* if records indicated the provision of *any* mental health treatment, including psychotropic medications or contact with a mental health professional. We examined detection and treatment from each participant's intake date until that individual's case was disposed by the judge or for 6 months, whichever came first. We chose 6 months because it allowed sufficient time for the system to recognize and respond to youths with major mental disorders.

We reviewed and coded records from the juvenile justice and public health systems. Some public health agencies provided electronic data. For data abstracted from paper records, 2 people coded records until reliability exceeded 0.90.

TABLE 1—Unweighted Sample Characteristics, by Diagnostic Classification (Need for Treatment): Northwestern Juvenile Project

	Total Participants, No. (%) (N = 1829)	Non-MMD Participants, No. (%) (n = 1526)	MMD Participants, No. (%) (n = 303)
Race/ethnicity			
African American	1005 (54.9)	833 (54.6)	172 (56.8)
Non-Hispanic White	296 (16.2)	254 (16.6)	42 (13.9)
Hispanic	524 (28.6)	436 (28.6)	88 (29.0)
Other	4 (0.2)	3 (0.2)	1 (0.3)
Gender			
Female	657 (35.9)	512 (33.6)	145 (47.9)
Male	1172 (64.1)	1014 (66.4)	158 (52.1)
Age, y			
Mean, y	14.9	14.8	15.1
Median, y	15.0	15.0	15.0
Mode, y	16.0	16.0	16.0
10	7 (0.4)	7 (0.5)	0 (0.0)
11	20 (1.1)	17 (1.1)	3 (1.0)
12	87 (4.8)	81 (5.3)	6 (2.0)
13	258 (14.1)	228 (14.9)	30 (9.9)
14	217 (11.9)	183 (12.0)	34 (11.2)
15	498 (27.2)	399 (26.1)	99 (32.7)
16	644 (35.2)	530 (34.7)	114 (37.6)
17	89 (4.9)	73 (4.8)	16 (5.3)
18	9 (0.5)	8 (0.5)	1 (0.3)
Processed in			
Adult court	275 (15.0)	222 (14.5)	53 (17.5)
Juvenile court	1554 (85.0)	1304 (85.5)	250 (82.5)

Note. MMD = major mental disorder. Unweighted percentages may not sum to 100% because of rounding.

To examine detection of major mental disorders, we collected data from the following sources:

Intake to detention. Mental health screens are administered to detainees during routine intake processing.

Probation. For detainees who are adjudicated delinquent (found guilty), social investigations are conducted by probation officers and submitted to judges before sentencing.

Forensic services. Some youths receive court-ordered psychiatric evaluations, which may include recommendations for mental health services.

Judicial sentencing. Court records show whether the judge included mental health services as part of the sentence.

To examine whether youths received treatment for major mental disorders, we collected data from the following sources:

The detention center. Records of medical and psychological services show treatment provided while in detention.

Public health system. Electronic data were obtained from the following state of Illinois agencies: (1) the Office of Mental Health, which provides services through state-funded mental health programs; (2) the Office of Children and Family Services, which may provide mental health services to youths involved in the child welfare system; and (3) the Office of Public Aid, which administers state medical programs that reimburse providers for mental health services.

Controlling for Time Available to Receive Treatment

A common problem in analyzing longitudinal data on services is controlling for youths' *time available* to receive services. For example, a youth released to the community for only 1 week before case disposition has fewer opportunities to receive treatment than a youth released to the community for 4 months before case disposition. Similarly, youths detained for the entire follow-up period would not be available to receive any treatment in the community. (We do not correct for time available to detect mental health problems, because all detained youths are screened at intake and

processed through the court, regardless of when they are released from detention or when their case is disposed.)

We controlled for time available to receive treatment using survival techniques. We report the estimated proportion of detainees receiving treatment (the cumulative hazard of treatment) at or before the median time available for treatment. The median time available was calculated for receiving treatment in the detention center only, the community only, and both the detention center and the community (i.e., total time available):

In the detention center. We calculated the time available in the detention center as the number of days from intake at the detention center until the earliest of 4 dates: (1) the first date treatment was received in detention, (2) the date of release from detention, (3) the date of case disposition, or (4) the date the 6-month study period ended. The median time available for treatment in detention was 15 days. Among those who received treatment in detention, 85.5% received it within 15 days.

In the community. We calculated time available in the community as the number of days between release from detention and the earliest of 3 dates: (1) the first date treatment was received in the community, (2) the date of case disposition, or (3) the date the 6-month study period ended. The median time available for treatment in the community was 22 days. Among those who received treatment in the community, 76.2% received it within 22 days.

In the detention center and the community. We calculated the total time available as the number of days from intake at the detention center until the earliest of 3 dates: (1) the first date treatment was received (either in detention or in the community), (2) the date of case disposition, or (3) the date the 6-month study period ended. The median time available for treatment in detention or the community was 41 days. Among those who received treatment in either the detention center or the community, 84.3% received it within 41 days.

Statistical Analysis

Because we stratified our sample by gender, race/ethnicity, age, and legal status, we

weighted all point estimates to reflect the detention center's population. All inferential statistics were corrected for design characteristics with Taylor series linearization.^{39,40} We examined the proportion of detainees who needed and received mental health treatment using 2 dichotomous variables, *needed treatment* and *received treatment*. For the 2×2 table, we report the proportional reduction in error (using ϕ^2) and significance. We also report odds ratios from a logistic regression model and hazard ratios from a Cox proportional hazard regression model.

We explored 6 categories of dichotomous independent variables:

Sociodemographic characteristics. Gender, race/ethnicity (non-Hispanic White vs racial/ethnic minority), and age (aged 10 to 13 years vs aged 14 years and older).

Violent charge. Murder, assault or battery, robbery, rape, aggravated sexual assault (yes/no).

Legal status. Processed as a juvenile or processed as an adult.

Major mental disorder. Psychosis or major affective disorder and a Children's Global Assessment Scale score of 60 or below (yes/no).

Reported treatment history. History of mental health treatment reported at intake to detention (yes/no).

Reported suicidal behavior. Current or past suicidal ideation or attempts reported at intake to detention (yes/no).

RESULTS

Do Detainees Who Need Mental Health Treatment Receive It?

Table 2 shows the proportion of detainees who needed and received mental health treatment, adjusted for time available. (Findings using unadjusted data, available from the authors, were substantially similar to those presented here.) Of the 303 participants who needed mental health treatment, 15.4% received treatment in the detention center, and 8.1% received treatment in the community. Sixteen percent received treatment either in the detention center or in the community ($\phi^2=0.0569$; $P=.0485$). Although the proportionate reduction in error is significant, it explains less than 6% of the

TABLE 2—Juvenile Detainees (N = 1829) Who Received Mental Health Treatment, by Need for Treatment: Northwestern Juvenile Project

Needed Mental Health Treatment, %	Received Treatment in Detention, %		Received Treatment in Community, %		Received Treatment in Detention or Community, %	
	No	Yes	No	Yes	No	Yes
No: 84.9 (n = 1526)	92.2	7.8	96.8	3.2	89.1	10.9
Yes: 15.1 (n = 303)	84.6	15.4	91.9	8.1	84.0	16.0

Note. Need for treatment was defined as a diagnosis of major depressive episode, manic episode, or psychosis and Children's Global Assessment Scale < 61 in the past 6 months. Data were weighted and adjusted for time available in the detention center, community, or both. Percentages calculated from unweighted sample sizes do not equal weighted estimates.

TABLE 3—Juvenile Detainees Who Needed Mental Health Treatment (n = 303) and Were Detected or Treated, by Site and Gender: Northwestern Juvenile Project

Site	Female, % (95% CI) (n = 145)	Male, % (95% CI) (n = 158)	Gender Differences P
Detected	78.3 (71.0, 85.6)	54.2 (41.1, 67.0)	.001
Detention center (intake)	39.5 (27.8, 51.2)	12.6 (4.0, 21.2)	.001
Probation department	51.4 (40.5, 62.2)	42.8 (30.0, 55.6)	.322
Forensic department	16.2 (9.8, 22.5)	12.8 (4.2, 21.4)	.553
Judge	18.2 (11.5, 24.8)	12.3 (3.7, 21.0)	.329
Treated	41.3 (25.9, 61.2)	12.9 (9.3, 17.8)	.002
Detention center ^a	39.8 (23.1, 62.5)	12.7 (9.0, 17.7)	.006
Community ^b	12.4 (4.1, 34.3)	7.4 (4.3, 12.6)	.466

Note. CI = confidence interval.

^aAdjusted for median time available in the detention center.

^bAdjusted for median time available in the community. Bivariate analyses conducted with Cox regressions.

error in the *received treatment* variable. In contrast, 10.9% of the 1526 participants who were scored as not needing services did receive them.

Who Is Detected and Treated at Each Point of the Juvenile Justice Process?

Table 3 shows the proportion of boys and girls who needed mental health treatment and were detected or treated at each point in the juvenile justice process. Substantially more youths were detected (78.3% of girls; 54.2% of boys) than were treated (41.3% of girls; 12.9% of boys); these gender differences were statistically significant. At the detention center, significantly more girls than boys who needed treatment were detected at intake (39.5% vs 12.6%, respectively) and treated (39.8% vs 12.7%, respectively). More youths needing treatment were detected at

the detention center and the probation department—sites that evaluate most youths who enter detention.

What Variables Predict Detection and Treatment?

Table 4 reports (1) odds ratios and 95% CIs from a logit model predicting detection (combining data from all sites) and (2) hazard ratios from a Cox regression predicting treatment in the detention center and in the community (combined). Cox regression was used to correct for time available. Table 4 shows that the odds of being detected as needing treatment were significantly greater for non-Hispanic Whites (odds ratio [OR]=1.91; 95% CI=1.32, 2.76; $P<.001$), younger detainees (OR=2.02; 95% CI=1.42, 2.88; $P<.001$), those processed as juveniles (OR=2.86; 95% CI=1.96, 4.19; $P<.001$), and

those who reported a history of treatment (OR=3.36; 95% CI=2.00, 5.64; $P<.001$). Although not statistically significant at $\alpha=.05$, the data suggest that gender predicted the odds of being detected (OR=1.33; 95% CI=0.99, 1.79; $P=.055$).

Table 4 shows that the hazard ratio for receiving treatment was significantly greater for younger detainees (OR=1.56; 95% CI=1.17, 2.08; $P=.002$), those with a major mental disorder (OR=1.74; 95% CI=1.35, 2.24; $P<.001$), those who reported a history of treatment (OR=2.95; 95% CI=2.29, 3.81; $P<.001$), and history of suicidal behavior (OR=2.14; 95% CI=1.67, 2.74; $P<.001$). Although not statistically significant at $\alpha=.05$, the data suggest that race/ethnicity (OR=1.32; 95% CI=1.00, 1.75; $P=.052$) and gender (OR=1.28; 95% CI=1.00, 1.65; $P=.054$) also predicted the odds of receiving treatment.

DISCUSSION

More than 1 in 6 juvenile detainees have a major mental disorder and associated functional impairments. Many more youths were detected as needing treatment than were receiving treatment. Among youths who needed treatment, 16% received treatment by the time of case disposition or within 6 months. Because we used a stringent definition of treatment need (major depressive episode, manic episode, or psychosis) and a liberal definition of receiving treatment (any form of mental health contact), these findings substantially underestimate the true level of unmet need among juvenile detainees.

Approximately 11% of youths who did not meet our definition of *needs treatment* also received treatment. Most likely, these participants had a disorder other than major depressive episode, manic episode, or psychosis^{3,4}; did not meet all *DSM-III-R* criteria for a major mental disorder; or developed symptoms after the interview.

Detection and treatment were determined, in part, by clinical variables (having a major mental disorder or history of treatment or suicidal behavior reported at intake), demographic variables (lower among racial/ethnic minorities, boys, and older detainees), and legal status (lower among detainees

TABLE 4—Predictors (Odds and Hazard Ratios^a) of Detection and Treatment Among Juvenile Detainees (N = 1829): Northwestern Juvenile Project

Predictor	Detected ^b		Treated ^c	
	Odds Ratio (95% CI)	P	Hazard Ratio (95% CI)	P
Race/ethnicity (non-Hispanic White vs racial/ethnic minority)	1.91 (1.32, 2.76)	<.001	1.32 (1.00, 1.75)	.052
Gender (female vs male)	1.33 (0.99, 1.79)	.055	1.28 (1.00, 1.65)	.054
Age, y (10–13 vs ≥14)	2.02 (1.42, 2.88)	<.001	1.56 (1.17, 2.08)	.002
Charge (violent vs nonviolent)	1.37 (0.93, 2.03)	.116	1.21 (0.96, 1.53)	.101
Legal status (processed as juvenile vs processed as adult)	2.86 (1.96, 4.19)	<.001	1.01 (0.66, 1.53)	.972
Major mental disorder (yes vs no)	1.16 (0.67, 2.01)	.599	1.74 (1.35, 2.24)	<.001
Reported treatment history (yes vs no)	3.36 (2.00, 5.64)	<.001	2.95 (2.29, 3.81)	<.001
Reported suicidal behavior (yes vs no)	1.77 (0.86, 3.65)	.121	2.14 (1.67, 2.74)	<.001

^aOdds and hazard ratios were rounded to the second decimal place.

^bOdds ratios and confidence intervals from logit models predicting detection.

^cHazard ratios from Cox regression predicting treatment.

transferred to adult court). Treatment was more often provided in the detention center (15.4%) than in the community (8.1%).

Even in the general population, youths with mental disorders are underserved. The surgeon general and recent national surveys have estimated that 65% to 80% of youths who need mental health services do not receive them.^{12,41–46} Juvenile justice youths may receive even fewer services than general population youths for 2 reasons. First, juvenile justice youths are disproportionately poor and poorly educated; 60% of youths in the juvenile justice system are African American or Hispanic.² These characteristics limit the type and scope of mental health services that are sought and provided.^{47–50} Second, as many as three quarters of detainees with major affective disorders also have substance use disorders,²⁷ a rate much higher than rates in community or treatment samples.^{45,51–54} Comorbidity complicates detection, placement, treatment, compliance, and retention. Because the fragmented public health system has insufficient services,²⁵ youths with comorbidity, especially minorities,^{18,25} may be rearrested instead of treated.^{5,55}

Can we estimate the level of unmet need among juvenile justice youths nationwide? Making precise estimates is difficult because

our data reflect only 1 county and because the Department of Justice tabulates only 1-day counts of the detention population, not the number of individuals who enter detention annually (Melissa Sickmund, PhD, National Center for Juvenile Justice, e-mail communication, July 21, 2005). Nevertheless, to the extent that Cook County is typical, our findings suggest that on an average day, as many as 13 000 detained youths with major mental disorders do not receive treatment. The juvenile courts, which the Department of Justice estimates handle 1.6 million cases involving approximately 1.1 million *individuals* per year (Melissa Sickmund, PhD, National Center for Juvenile Justice, e-mail communication, July 21, 2005)^{56,57} may process more than 139 000 youths per year whose major mental disorders go untreated.

We cannot compare our findings to prior studies of juvenile detainees because no study collected comparable prospective data. However, the observed level of service provision is similar to the level provided to youths entering state custody (14% to 17%)⁵⁸ and lower than the level provided to youths in the child welfare system (24% to 28%).^{44,59} The observed rate of service provision also appears to be lower than the rate among incarcerated adults.^{60–65}

Limitations

Because our findings are drawn from a single site, they pertain only to urban detention centers with similar demographic composition, similar detention policies, and comparable laws. The rate of service provision that we observed in Cook County is probably better than in most detention centers. Unlike some detention centers,²⁶ the Cook County Juvenile Temporary Detention Center screens all detainees at intake for mental health problems.

There is little information on the reliability and validity of the DISC 2.3 assessments in racial/ethnic minority populations.

Finally, the true rate of service provision may be lower than reported here because (1) our presence may have raised the staff's sensitivity to the detainees' treatment needs; (2) we used a conservative definition of *treatment need*; and (3) we used a liberal definition of *treatment*, including *any* contact with a mental health professional. We did not control for the quality of treatment.

On the other hand, the true rate of service provision may be higher than reported here because, first, it was not feasible to collect record data on services provided by schools in the community, a common source for mental health services in community populations of youths.⁶⁶ However, this limitation is less important in this study than in general population studies because nearly half of our participants with major mental disorders were either not enrolled in school (other than in the detention center) or were incarcerated during the entire follow-up period. Second, although most detainees receive services from the public health system,¹⁴ some participants might have received treatment not included in our databases of publicly funded services. Third, because the DISC program assesses psychiatric disorders for the 6 months before the interview, participants may not have had an acute disorder at the interview or during the subsequent 6-month study period.

Despite these limitations, our findings have implications for future research and for mental health policy.

Directions for Future Research

We suggest 3 directions for future research: *Studies of juvenile correctional populations.* The surgeon general will soon issue a Call to

Action on Correctional Health. Yet there are few large-scale empirical studies of juvenile justice populations on which to base changes in public health policy. Although there is a growing literature on the mental health needs of juvenile justice youths,^{3,14,22,23,67–70} few large-scale empirical studies examine how to improve mental health services for correctional populations. Research is especially needed on youths transferred to adult courts or housed in adult facilities. The most recent US Department of Justice study found that 7600 youths younger than 18 years were held in adult jails on a given day; each year, 5600 new court commitments to state adult prison systems involve youths younger than 18 years.⁷¹ Youths incarcerated in adult facilities may not receive developmentally appropriate interventions.

Pathways to services. Understanding pathways to services will guide the development of interventions. Many factors influence the likelihood of service utilization, including coercion (mandated by judiciary, family pressure), environmental stress,⁷² having a primary medical provider,⁷³ health insurance,⁷⁴ the age of onset of disorders,⁷⁵ and past services.^{73,76} We especially need studies of informal social networks, which can serve as hindrances to services or facilitate recovery.⁷⁷

Transitions to adulthood. Prospective longitudinal studies are needed to examine pathways and barriers to services as youths make the transition from the complex systems that serve juveniles (primary care, mental health, education, child welfare, and juvenile justice) to the systems that serve adults.

Implications for Mental Health Policy

The mental health and juvenile justice systems must collaborate to accomplish the following:

Improve services for underserved demographic subgroups. More girls than boys were detected and treated in the detention center. This may reflect a growing awareness that girls need gender-specific services. Compared with delinquent boys, girls have worse family situations^{78–80} and are more likely to have been abused or exploited^{81–84}; these are key risk factors for psychiatric disorders. Recognizing delinquent girls' special needs, federal

agencies have established programs designed for them.^{85–90} The next challenge is to improve services for African American boys aged 14 to 18 years, who had the lowest rate of service provision at 7.3%.

Provide treatment for youths who need it. The most recent national survey of juvenile justice facilities found that more than 70% provided screening for mental health problems,²⁶ a substantial improvement over the 24% found in 1983.⁹¹ Promising screens are now available.^{92,93} However, detecting need means little unless services are available. In particular, greater continuity of care is needed when detainees are released into the community. Promising programs should be implemented on a national basis, such as the recent Illinois Mental Health Juvenile Justice Initiative⁹⁴ and the Cook County Juvenile Court Clinic.⁹⁵

Decrease health disparities. Ironically, to decrease health disparities, we must focus on correctional populations. Although juvenile crime is relatively similar across race/ethnicity,⁹⁶ racial/ethnic minorities constitute 29% of arrestees,⁵⁷ 62% of detainees,² and 60% of juveniles who are committed (serving sentences).² Our findings suggest that these disparities carry over to the provision of mental health services.

The President's New Freedom Commission on Mental Health⁵ and the surgeon general¹² stress the need to improve mental health treatment for youths in the juvenile justice system. Yet, without dramatic changes in public health policy, services are not likely to improve. Between 1999 and 2002, the number of youths covered by public insurance programs increased by 4.8 million.⁹⁷ However, states cannot sustain this expansion.⁹⁸ Moreover, managed care increasingly controls public insurance benefits, such as Medicaid.⁹⁹ Many disorders that commonly co-occur with major mental disorders²⁷—conduct disorder, attention deficit/hyperactivity disorder, substance use disorders—are often not covered or have restrictive treatment guidelines.¹⁰⁰ The increasingly common practice of capitated mental health care disproportionately affects the services provided to juvenile justice populations.¹⁰¹ Improving mental health services can reduce the risk of involvement in the juvenile justice system.¹⁰² The challenge to public health is to provide accessible, inno-

vative, and effective treatments to a population that is often beyond the reach of traditional services. ■

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This article was accepted May 30, 2005.

Contributors

L. A. Teplin, the principal investigator, planned the study, directed the project, and drafted the article. K. M. Abram assisted in planning the study, directed the field study, and participated in drafting the article. G. M. McClelland assisted in planning the study, directed the data operation and data analysis, and supervised preparation of the tables. J. J. Washburn conducted the data analysis and drafted sections of the article. A. K. Pikus supervised the data collection of institutional records, participated in data preparation, and conducted the primary literature review.

Acknowledgments

This work was supported by National Institute of Mental Health (grants R01MH54197 and R01MH5946; Division of Services and Intervention Research and Center for Mental Health Research on AIDS) and the Office of Juvenile Justice and Delinquency Prevention (grant 1999-JE-FX-1001). Major funding was also provided by the National Institute on Drug Abuse, the Substance Abuse and Mental Health Services Administration (Center for Mental Health Services, Center for Substance Abuse Prevention, Center for Substance Abuse Treatment), the Centers for Disease Control and Prevention (National Center for HIV, STD and TB Prevention and National Center on Injury Prevention and Control), the National Institute on Alcohol Abuse and Alcoholism, the National Institute of Health (NIH) Office of Research on Women's Health, the NIH Center on Minority Health and Health Disparities, the NIH Office on Rare Diseases, The William T. Grant Foundation (grant 2076), and The Robert Wood Johnson Foundation (grant 041942). Additional funds were provided by The John D. and Catherine T. MacArthur Foundation, The Open Society Institute, and The Chicago Community Trust.

Many more people than the authors contributed to this project. The study could not have been accomplished without the advice of Ann Hohmann, Kimberly Hoagwood, Heather Ringeisen, David Stoff, Grayson Norquist, Delores Parron, Eugene Griffin, and Mark Soler. Celia Fisher guided our human subject procedures. We thank all our agencies for their collaborative spirit and steadfast support.

We thank project staff, especially Amy Lansing, Amy Mericle, and Lynda Carey, for supervising data collection and preparation. We thank Laura Coats, editor and research assistant. We appreciate the cooperation of everyone working in the Cook County systems, especially David Lux, our project liaison, Chief Judge

Timothy Evans, former Chief Judge Donald O'Connell, Judge William Hibbler, Judge Curtis Heaston, Judge Nancy Sidote Salyers, Judge Patricia Martin Bishop, Judge Sophia Hall, and the late Mary Kehoe Griffin. We also appreciate the cooperation of the state of Illinois personnel, including Leigh Steiner, Mary Smith, and William Day. Without the cooperation of Cook County and the state of Illinois, this study would not have been possible. We thank our participant advocate, Michael Mahoney. Finally, we thank our participants for their time and willingness to participate.

Human Participant Protection

This research was approved by the Northwestern University and Centers for Disease Control and Prevention institutional review boards. We obtained informed consent from all participants aged 18 years and older. For participants younger than 18 years, we obtained assent from the youths and consent from a parent or guardian, whenever possible; when this was not possible, youth assent was overseen by a participant advocate representing the interests of the youth.

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