

A Public Health Approach to Address the Mental Health Needs of Juvenile Offenders

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Abstract

The Lemuel Shattuck Hospital Youth Service Program adopted a public health approach to address the mental health needs of incarcerated juvenile offenders in Massachusetts. The program, which operated for six years, provided psychiatric care and neuropsychological assessment to delinquent youth as well as training for psychiatry residents, neuropsychology fellows and Massachusetts Department of Youth Service staff. The program recognized and attempted to address the health care disparity of limited access to quality mental health services for incarcerated youth, particularly those from disadvantaged and minority backgrounds. The program was a collaborative venture among the Massachusetts Departments of Public Health and Youth Services, and Tufts New England Medical Center. The scope of the problem of mental health care for incarcerated youth will be first outlined, followed by a history and evaluation of the program from a public health and system integration perspective.

The Epidemiology of Mental Illness among Juvenile Offenders

The National Mental Health Association (1999) reported rates of mental health disorders are as high as 60% to 75% for incarcerated adolescents. A recent study by Teplin et al (2002) of 1,829 youth interviewed with the Diagnostic Interview Schedule for Children (DISC) at the Cook County Detention Center in Chicago, Illinois, found the prevalence of any mental disorder was 67% for males (n=1172) and 74% for females (n=657). A notable finding in the Teplin study was that, even excluding Conduct Disorder, the overall prevalence of mental health disorders remained 60% in males and 70% in females. These rates of mental health disorders among criminally involved youth are two to six times those found in the general population (Breda, 1996) and hold up across cultures. Vreugdenhil et al (2004), also using the DISC, found a 90% rate of mental health disorders among a population of incarcerated Dutch male youth, which was over three times the prevalence found in the normal Dutch adolescent population. Additionally, the co-morbidity rate among juvenile offenders, particularly of substance abuse and mental health disorders, has been reported as high as 67% (GAINS, 1999; Vreugdenhil et al, 2004)

Serious emotional disturbance can be defined as an emotional disturbance that leads to extreme functional impairment. Friedman et al (1996) reported the overall community prevalence for any diagnosable psychiatric disorder among children aged 9 to 17 is 20% and 5% to 9% for serious emotional disturbance. Coccozza and Skowrya (2000) estimated that the prevalence of serious emotional disorders among youth in the juvenile

justice system is at least 20%. Not only is the prevalence of mental illness among juvenile offenders high, but one in five juvenile offenders experiences functional impairment such as learning disabilities, social skills deficits, or interpersonal problem solving difficulties as a result of serious emotional disturbance or mental illness.

In some respects, this high prevalence of mental health problems among many youthful offenders is not surprising, considering the toxic environments in which many have been raised. The lives of many juvenile offenders are marked by inconsistent parenting, familial substance abuse, physical and/or sexual abuse, and exposure to community violence (Haapasalo & Kankkonen, 1997; Lutz & Linny, 1995; Malinosky-Rummell & Hansen, 1993; McMackin et al, 1999; Rivera & Widom, 1990; Weeks & Widom, 1998; Widom, 1989; and Widom, 1995).

The psychosocial stressors many delinquent youth must deal with are not evenly distributed across social classes. In a review of the impact of childhood poverty, Evans (2004) stated:

The confluence of multiple psychosocial and physical risk factors may be a key, unique feature of childhood poverty. Adverse socioemotional and cognitive developmental outcomes are accelerated by exposure to multiple risks relative to singular risk exposure (Evans 2004: 86).

When co-occurring, these personal, familial, economic and social stressors have a synergistic effect that impacts the mental health of a juvenile offender. Indications of the multiple stressors many juvenile offenders in Massachusetts face were outlined in an internal survey of youth committed to the Department of Youth Services that indicated half of Department of Youth Services (DYS) committed youth had histories that include

child welfare involvement and half required special education services. Additionally, a third of DYS youth reported weekly alcohol use, and close to half reported weekly marijuana use. Indicators of family psychosocial stress included 86% of youth were raised in broken homes, a parental unemployment rate of over 50%, and only half of biological parents had completed the 12th grade (Sylva, 1998).

An examination of boys held in secure treatment in Massachusetts, the highest level of security reserved for youth with the most severe or chronic offense histories, showed many additional stressors. Almost half of the boys in secure treatment reported a history of physical abuse and nearly a third reported sexual abuse. Exposure to violence was a predominate feature in the lives of many, with three quarters having had their lives seriously threatened, and almost half having been shot or stabbed. Over 80% had known someone murdered and over a quarter had seen someone murdered (McMackin, et al 1998).

Public Health and Psychiatric Services for Mentally Ill Juvenile Offenders

The overall mission of public health is succinctly summarized by the adage “An ounce of prevention is worth a pound of cure.” The federal Healthy People 2000 and 2010 initiatives more extensively outlined the nation’s prevention health care agenda for the prior and next ten years. The overarching goals of the Healthy People initiatives have been to increase the span of healthy life, both in respect to quantity and quality for all Americans; to reduce health care disparities for all Americans; and to improve access to preventive health care services for all Americans.

The Healthy People 2000 Final Review (2000) illustrated how closely linked these goals are to issues of race and class. Between the years of 1990 and 1999, 23% of persons below the poverty level reported fair to poor health; whereas, only 7% of persons 200% or more above the poverty level reported fair to poor health. African-Americans die on average six years earlier than whites (71.3 years to 77.3 years) and more strikingly African-Americans have 8.3 fewer years of a healthy life than whites (57.8 years to 66.1 years).

Additionally, mental illness is a serious condition that contributes to decreased longevity as well as impairment to the quality of life at all points on the lifespan. The chronic mentally ill die almost ten years earlier than the non-mentally ill. The comparison between age cohorts is even more alarming: the mentally ill in the 25 to 64 age group are six to seven times more likely to die from a cardiac event and two to six times more likely to die from pulmonary disease than their non-mentally ill counterparts (Massachusetts Executive Office of Health and Human Services, 2001). According to a recent Surgeon General's Report on Mental Illness, impairments due to children's emotional and behavioral problems may lower their quality of life and increase their chances of not being fully functional members of society (U.S. Public Health Service, 2000). These stressors are compounded for the mentally ill who become involved in the criminal justice system. Speaking directly to the plight of juvenile offenders, the Surgeon General's Report (2000) stated that juvenile justice agencies often do not recognize mental health problems. A 1995 report to Congress on mental illness in the criminal justice system, filed by a consortium of federal agencies, reported:

Persons with mental illness who come into contact with the criminal justice system are particularly vulnerable. They bear a double burden: the stigma associated with their mental illness and the stress of potential arrest and confinement. Involvement with the criminal justice system may exacerbate the isolation and distrust often associated with mental illness (Center for Mental Health Services, et al 1995: I).

Although the focus of this report was on adult offenders, this conclusion fits with juveniles as well.

The children most likely to go without appropriate services are poor and children of color (Satcher, 1999; National Mental Health Association Survey, 1999; Isaacs, 1996). Researchers have also found that minority children are more likely to be referred to the juvenile justice system for disruptive behavior and white children are more likely to be referred for mental health treatment (Cross, et. al. 1989; Isaacs, 1996; Thomas, et al 1999; Pumariega, 1999). Nationally, although minority youth represent only 32% of the 10-17 year olds in the general population, 68% of the youth held in juvenile justice facilities are minorities (Snyder, 1997). Some advocates have described the juvenile justice system as the “de-facto” mental health system, especially for disenfranchised, poor, minority youth. This has very real implications for the provision of mental health diagnostic and treatment services. Farmer et al (2003) found that the juvenile justice system was the second most common point of entry for mental health care for youths between the ages of 14 and 16.

Mental Illness and Recidivism

The data from the study by Teplin, et al (2002) indicated that the symptoms juvenile offenders experience do not ameliorate over time but rather compound. Children in the two older youth cohorts (age 14 & 15, 16 and over) of the study had higher prevalence in almost all diagnostic areas than those in the younger cohort (age 13 and under). Ditton (1999) showed adult mentally ill offenders recidivate more often than their non-mentally ill counterparts, yet there is little information on recidivism and mental illness among juveniles.

In Massachusetts, 66% of committed juvenile offenders were rearraigned within one year of discharge and of those, 72% were rearraigned within their first six months of release; however, there was not a separate analysis of mental illness as a contributing factor (Corneliussen et al, 1996). Frederick (1999) examined the records of 2763 youth discharged from the New York State Youth Authority. He identified 40 criminal risk factors that were collapsed into eight categories including mental health, substance abuse, behavior problems at school, educational handicaps, educational performance, household characteristics, family environment, and relations with parents. Almost half of the youth had at least one risk factor from the mental health category but again mental health was not broken out as a separate variable related to recidivism.

Harris and Rice (1999) reported that for adult offenders, including individuals with and without mental disorders, the same risk factors impact on recidivism (e.g. prior criminal history, substance abuse, anti-social peers). The critical factor is that the mental disorder should be treated so the individual can benefit from an intervention program. This is particularly important from an economic point of view. The cost of 10 years of criminal behavior, including victim cost, criminal justice costs and offender productivity

loss, has been estimated between \$1.3 and \$1.5 million per offender (Snyder & Sickmund, 1999). Considering that higher rates of delinquent behavior is associated with higher levels of psychopathology (Breda, 1996); that adult mentally ill offenders recidivate at a higher rate than non-mentally ill offenders (Ditton, 1999); and when their mental illness is stabilized they can more fully benefit from offender based treatments (Harris and Rice, 1999), it follows that treatment of the mentally ill offender at the youngest possible age is paramount from both economic costs and human suffering perspectives.

Psychiatric Care within the Department of Youth Services Prior to 1997

Massachusetts was the first state in the country to deinstitutionalize its juvenile justice system in the early 1970s, dismantling the training school system in favor of a greater reliance on community services. Small secure residential settings were reserved for the most serious or chronic offenders. Currently the Department of Youth Services operates, directly or under contract, 66 residential facilities for youth. Each program serves between 20 to 30 youth. Forty-one of those programs (33 for boys and 8 for girls) are considered “hardware secure,” providing the highest level of security. The remaining 25 programs provide lesser levels of security, from partial secure to “open door.” Each program has its own clinical service program staffed by a master’s level (or above) clinical director and a number of clinicians who are generally at the master’s level. Medical services are provided under regional sub-contracts with all programs having a registered nurse or physician assistant on site for all or part of the week. DYS places a strong emphasis on family reintegration. The current DYS Strategic Plan (1998) calls for

the location of services, including secure facilities, in the home communities of offenders; collaboration with community resources and providers; and an emphasis on education, job training and employment programs tailored to the needs of the youthful offender.

Prior to the development of the Youth Service Program, psychiatric care was delivered through an informal network of community based providers in each regional area. Communication among the providers was minimal, as was the integration of psychiatric care with the overall medical care a youth would receive. The responsibility to find psychiatric care was placed primarily on each individual program, with youth periodically taken out of high secure programs to see community providers while in shackles and chains. DYS did have an independent psychiatric consultant who saw youth for specialized evaluations and followed a few youth for medication management.

The proportion of youth on psychotropic medications was quite low until the mid 1990s, when it began to rise rapidly and came to the attention of DYS health and clinical administrators. An internal survey of youth entering the DYS detention system in 1997 (Morrissey, 1997) revealed 15% were prescribed psychotropic medications and 2% - 3% had a history of psychiatric hospitalization. This underscored the importance of developing a consistent care program to address psychiatric illness. In recognition of the scope of the problem, which included medication being discontinued due to a lack of providers, the DYS Director of Clinical Services identified the psychiatric needs of youth as a high priority problem and was receptive to a proposed collaboration with the Lemuel Shattuck Hospital (LSH) staff regarding the development of a psychiatric care program for youth in DYS care.

History and Design of the Youth Service Program

Lemuel Shattuck Hospital is the Massachusetts Department of Public Health (DPH) hospital providing services to disadvantaged populations in the greater Boston area. The hospital's mission is to "provide comprehensive health care and support services which meet the health and social needs of our community," as part of the overall DPH mission of ensuring all Massachusetts residents have access to quality health care. The teaching affiliate of LSH is Tufts New England Medical Center (Tufts-NEMC), which is affiliated with Tufts University School of Medicine.

In 1996 LSH administrators were concerned about the high prevalence and long-term impact of mental disorders among juvenile offenders, particularly among disadvantaged and minority populations. Considering that LSH is an important provider of health and mental health care to many adult correctional facilities, the LSH administration viewed a program for juvenile offenders as an opportunity to provide early intervention and hopefully reduce the burden of psychiatric illness among youth who were at risk to go on to become adult offenders. Thus, the psychiatric needs of youth placed in the juvenile justice system were viewed as a public health concern by the senior LSH staff.

A psychiatric treatment program was conceptualized with 4 primary goals: (1) to improve access to and the quality of psychiatric care at DYS facilities; (2) to improve the continuity of services for youth who are transferred from facility to facility; (3) to provide training and consultation for DYS staff and child and adolescent psychiatry residents; and (4) to collect data on the mental health needs of offenders and apply for funds to

conduct research on the best system of cost-effective mental health services for incarcerated youth. Crisis services were excluded from the YSP as there was a state-wide crisis management system administered through the Department of Mental Health.

There are four regional DYS areas within Massachusetts: Metro (Boston and the northern suburbs), Southeast, Central and Western. It was jointly decided with DYS that the YSP would focus its services on the Metro and Southeast Areas with some services provided to the Central Area and none to the Western Area, which had its own local provider. The programs most in need of services were determined by the DYS Director of Clinical Services and DYS regional clinical directors. With funding provided by DYS, DPH and third party insurance (primarily Medicaid), the YSP began to see patients in December, 1997.

The YSP was initially staffed by a half-time board certified child and adolescent psychiatrist, a full time clinical nurse specialist and a quarter-time psychologist who also served as the program director. Support services were provided by LSH and billing services provided by Tufts-NEMC. The YSP expanded both staff and facilities covered each year between 1997 and 2000. At the time of its closure in 2003, the YSP had provided care to 1,639 youth (1,287 boys and 352 girls). Staffing at the time of its closure in 2003 included a full-time board-certified child and adolescent psychiatrist who was also the program medical director, a part-time board-certified child and adolescent psychiatrist who also coordinated training of Tufts-NEMC child and adolescent psychiatry residents, a full-time clinical nurse specialist who specialized in working with girls, a part-time child and adolescent psychiatry resident, a full-time

neuropsychology post-doctoral fellow, a social worker to assist in case management, and a quarter time psychologist/program director.

The majority of services were provided on site at the DYS facility where the youth resided. The remaining services were provided by establishing a clinic at one secure DYS facility that permitted youth from less secure programs in the same DYS area to be transported to the clinic site. Procedures for making referrals were developed. Upon arrival at a facility, the YSP clinician held a triage meeting with the clinical directors from each program to be visited. Cases were reviewed and prioritized. About 50% of referrals arose from the triage meeting, while the other 50% were previously identified by program staff based on the youth's history of prior psychiatric care or his/her presentation on the unit. The triage meeting served several functions. First, it was valuable in identification of youth who had not previously been referred. It allowed the YSP clinician to quickly review all follow-up cases. It also provided an opportunity to provide informal training to DYS staff.

All patient services provided by YSP clinicians were voluntary. When needed, the DYS clinical staff often assisted the YSP clinician with contacting families to obtain permission to evaluate and then prescribe psychotropic medication. No youth were seen if they or their families refused to consent to care. No court ordered evaluations were performed to be used as possible aides to sentencing or for any other forensic reason. A decision by a youth to not take medication was never held against him or her by DYS staff through any type of program or other restriction of privileges.

Patient Characteristics

A retrospective chart review was done of 102 patient records (80 male & 22 female) by selecting every fifth record from the central YSP alphabetical file between the letters A and H. This review represented 6% of the patients seen between 1997 and 2003. Table 1 presents the racial background of the sample.

Table 1

Race of the Sample

	Males		Females		Total %
	N	%	N	%	
African-American	15	14.7	2	1.9	16.6
White	32	31.4	13	12.7	44.1
Hispanic	14	13.7	1	1.0	17.6
Other *	8	7.8	2	1.9	9.7
Unknown **	11	10.8	4	3.9	14.7
Totals	80	78.4	22	21.6	100.0

* Youth of Cape Verdian, Asian or mixed racial descent

** Data not available

Table 2 presents additional characteristics of the sample.

Table 2

Characteristics of the Sample (80 Males & 22 Females)

	Males		Females		Total %
	N	%	N	%	
Detained by DYS	31	30.4	10	9.8	40.2
Committed to DYS	33	32.4	10	9.8	42.2
Committed while in Treatment	16	15.7	2	1.9	17.6
Prior Psych Hospitalization	40	39.2	9	8.8	48.0
Prior Suicide Attempt	17	16.7	8	7.8	24.5
Serious Substance Abuse History	48	47.0	16	15.7	62.7

It should be noted that while 25% of the sample had a history of prior suicide attempts, 36% of the referred girls had at least one prior suicide attempt.

All youth served by the YSP had an initial psychiatric evaluation. As part of this evaluation, 95 of the youth in the sample (74 males & 21 females) were assigned a DSM IV (Diagnostic and Statistical Manual, 4th edition) Global Assessment of Functioning (GAF). This score can range from 0 to 100 and the average for the sample was 53. This GAF score represented a moderate severity in symptoms or moderate difficulty in a youth's social, occupational, or school functioning. The average number of psychiatric diagnoses each youth received was 2.6. A quarter of the youth were seen by more than one YSP provider during the time they received care from the YSP.

Program Outcomes

The principal program outcomes achieved and limitations of the YSP are presented in relation to each of the initial goal areas: improving the quality and access to care for youth; improving the continuity of care for youth; developing training opportunities for mental health professionals, and establishing a data base.

1. Improving Quality and Access to Psychiatric Services:

Many youth with serious psychiatric illness who were placed in the DYS facilities received psychiatric care through the YSP as evidenced by the inpatient hospitalization rate for YSP referrals prior to incarceration being over 15 times that of the full DYS population (48% vs. 2%-3%). Additionally, YSP referrals had a high suicide attempt rate prior to incarceration (25%), and an average GAF of 53 at the time of their initial YSP assessment.

Psychiatric care was provided at regularly scheduled times at over 25 DYS facilities by board certified child and adolescent psychiatrists as well as off hours consultation available by page. This availability of psychiatric care meant that many youth did not have medication abruptly discontinued due to lack of access to a provider, which periodically took place prior to the advent of YSP services. Regular triage meetings were held with DYS program and clinical staff to identify youth in need of services and review the treatment plans of all youth in care. This close collaboration may have contributed to lowering psychiatric emergencies at programs served by the YSP as indicated by a reduction in emergency service utilization in the Metro Boston Area

programs served by the YSP. Additionally, neuropsychological assessments were provided to 136 youth to assist in treatment and educational planning.

The YSP never developed an integrated medical record including psychiatric care. This lack of an integrated medical record interfered with the quality of care as initial assessments were repeated at times and it made collaboration with other medical providers difficult particularly around monitoring medication side effects and ordering tests.

African-American youth were underrepresented in the referral pattern for both males and females based on the percentage of the full DYS population they represented. This fits with the national mental health referral patterns previously noted for African-American youth (Cross, et. al. 1989; Isaacs, 1996; Thomas, et al 1999; Pumariega, 1999), where African-American youth are less frequently referred for psychiatric care in comparison to white youth. It raises the question whether African-American psychiatric needs went unrecognized and therefore were being inadequately addressed.

Overall the access and quality of psychiatric care was notably improved for youth during the tenure of the YSP.

2. *Continuity of Care:*

Continuity of care was initially addressed by establishing the YSP as the main provider for psychiatric care to over 25 separate DYS programs. Under this system of care, youth were able to receive services from the same provider as they moved from facility to facility. To illustrate, 18% of the youth evaluated by a YSP clinician had their first encounter in a detention facility and were later followed by the YSP as they moved to an assessment and later a treatment facility for DYS committed youth. This indicated

a continuity of care as youth were seen not only in different facilities but as they changed legal status from detained to committed. To ensure a continuity of care, YSP staff shared their diagnostic evaluations and follow-up reports with DYS clinical staff and chaired regular triage meetings. This helped both YSP and DYS staff to monitor patient symptoms and target behaviors. Additionally, a program was developed for girls where one provider followed girls from detention to assessment and then to treatment programs in the two DYS areas the YSP was contracted to cover. This continuity of care was particularly important for females where 36% had a prior history of suicide attempts and 41% a history of psychiatric hospitalization. By the provider following a patient from program to program the provider could ensure continuity in the care by informing staff at each program of a girl's psychiatric treatment plan and providing a stable caring relationship for the girl.

Here again, limitations were faced regarding providing a continuity of care in that services were only implemented for two of the four DYS areas, Metro and Southeast, and partially for a third area, Central. There remained service shortfalls particularly at some Central Area programs the entire time the YSP provided care. At times a youth would be transferred to a program not covered by the YSP and on these occasions the assurance of continuity in the treatment plan was less certain. Nonetheless, the continuity of care provided to incarcerated youth was enhanced by the YSP.

3. Training:

The training goal was considered important in the initial planning of the YSP as a means to upgrade the understanding of psychiatric illness among DYS providers as well as to enhance the training for medical professionals entering psychiatry. As a step

towards this all YSP professional staff held clinical faculty appointments with the Department of Psychiatry at Tufts University School of Medicine. A part time YSP/DYS 4-month rotation was integrated into the Tufts-NEMC child and adolescent psychiatry residency training program. Additionally, a YSP/DYS post-doctoral neuropsychology training position was developed as part of the LSH neuropsychology training program. A benefit of the academic affiliation with Tufts-NEMC and training opportunities provided through the YSP was that it helped with recruitment of medical professionals who wanted to maintain an academic affiliation, have an academic professional peer group, and be involved in the teaching of residents.

The bulk of the YSP training of DYS personnel was done informally through the triage process. The YSP did schedule monthly in-service case presentations and rounds that DYS personnel were invited to but few attended due to other responsibilities. While the training component associated with Tufts-NEMC successfully provided training to over 20 residents, the formal training of DYS personnel could have been more rigorous.

4. Data Collection:

The program's weakest area, as is often the case in applied programming, was data generation, collection and organization. While administrative data was available for billing purposes, neither an integrated nor an electronic medical record was developed. This lack of an integrated medical record interfered with the continuity of care as previously mentioned and forced staff to hand carry records from program to program. Program planning was also impacted by not having an integrated electronic medical record. Data was not readily available for report preparation, planning meetings, research, and proposal development.

Program Evaluation

The YSP will be evaluated by applying the program development guidelines outlined by the GAINS Center (1999)¹ in *The Courage to Change: A Guide for Communities to Create Integrated Services for People with Co-Occurring Disorders in the Justice System*. Their guidelines are meant to be applied to adult or juvenile offender programs designed to meet the needs of individuals with mental illness and co-occurring substance abuse disorders. Although 63% of the youth referred to the YSP had substance abuse problems, the YSP was designed to focus primarily on their mental health issues. Nonetheless, the GAINS Center guidelines provide a framework by which the YSP can be assessed.

The National GAINS Center recommends taking a “system integration” approach to collaboration among the various stakeholders as a program is developed. System integration in contrast to service integration represents a “new arrangement among the service organizations, including their treatment services, administration, management information systems, and staff training” (GAINS 1999, p. 8). Service integration provides for an overlapping of services that may be coordinated by a caseworker often acting as the intermediary or advocate for a client among various independent agencies or providers. System integration is characterized by a spanning of the boundaries among the providers so services do not overlap but are integrated. A full integration of care may include a sharing of budgets, planning, and staff among the principal stakeholders. An

¹ Footnote: The National GAINS Center was established in 1995 to collect and disseminate information on persons with mental illness and co-occurring substance abuse disorders within the criminal justice system. The GAINS Center is supported by numerous funders including the Substance Abuse and Mental Health Service Administration, the National Institute of Corrections, the Office of Justice Programs, and the Office of Juvenile Justice and Delinquency Prevention.

integrated system leads to fewer seams or gaps among providers through which clients can slip. This is particularly important within the criminal justice sector where there may be a mandatory aspect to the treatment. Seams or gaps in the system of care among providers can contribute to noncompliance by clients or allow for clients to get lost among the various providers if there is not good communication among the providers.

The GAINS Center describes a two step process to the development of a system integration approach. These steps are Start-up and Implementation.

Start-up:

Start-up is a time for coalition building and strategic planning. It is recommended that the key agencies be identified, consumer groups consulted and a common goal with a strategic plan determined. A strong leader, with good communication skills, should direct the process, and although the start may be small the group should “carry a big vision”. The project must commit to cultural sensitivity, organize political support, and clarify a funding strategy.

Although not specifically designed to follow the GAINS plan from its inception, the YSP incorporated many of the GAINS’ guidelines in the initial planning phase. The YSP Program Director worked closely with his DYS counterpart, the DYS Director of Clinical Services, meeting bi-weekly for the first three years of the program to develop trust, mutual respect of each other, shared objectives, and a clear understanding of the needs of youth. The YSP Program Director and the DYS Director of Clinical Services shared the leadership role through being persistent in keeping a work group organized, keeping senior administrators of LSH and DYS apprised of progress, preparing agendas and summaries of meetings, involving Medicaid representatives, and maintaining a larger

vision for the YSP. There was a shared primary goal between YSP and DYS staff that consisted of improving the psychiatric care provided to incarcerated youth. However, there was some disagreement among the parties related to the secondary goals of training, research, and improving medical records. These goals were of particular interest to YSP/DPH staff due to our interest in improving the quality of care and program evaluation/impact. While political support for the program model was sought from the executive staffs of DPH and DYS, the planners did not seek additional political support from other public or private child welfare and mental health agencies nor from elected officials. Cultural sensitivity received close attention by all members, given that large percentage of the cases referred were expected to be minorities. LSH staff contacted the Department of Mental Health (DMH) and consulted with a senior DMH psychiatrist who was the primary DMH/DYS liaison. Consumer or patient advocate groups were not consulted in the early planning.

Implementation:

The GAINS Center describes a four-phase approach to implementation as a program moves from informal to formal relationships among all the parties involved in the project. The implementation phases will first be presented, and then discussed in how they apply to the YSP. The phases are:

1. Cooperation: Key personnel from all cooperating agencies meet and share information on a regular basis.
2. Coordination: Representatives from each agency move to joint staff meetings and program planning to learn more about each group's operating procedures.

3. Collaboration: Representatives of each agency continue to have regular meetings, cross train staff and move to interagency agreements through memoranda of understanding.
4. Integration: Representatives share budgets, jointly fund key positions and view client care as a shared responsibility.

As a project moves through these four phases there are a number of tasks that need to be accomplished that include:

- Formal and informal agreements among all parties
- A marketing strategy
- Systems of information sharing
- Accessibility to services by clients
- Cross training
- Boundary-spanning positions
- Outcome evaluations
- Respect for each system's stage of development

During the first three years of the YSP steady progress was made through the Cooperation, Coordination and Collaboration Phases of the GAINS model. The principal planners worked closely together as the YSP moved from Start-up to the Cooperation Phase. The initial survey of psychotropic usage among youth entering DYS detentions (Morrissey, 1997) was jointly designed by the YSP Program Director and the DYS Director of Clinical Services who together identified the programs where services were first piloted.

During the first three years quarterly meetings were held with regional DYS administrators in the two target areas the YSP served, Metro and Southeast. Biweekly meetings were held between the YSP Program Director and the DYS Director of Clinical Services and a semi-annual meeting was held with senior DYS and LSH staff. These regular systems of communication helped the YSP move into the Coordination Phase.

YSP staff developed referral protocols as well as on-site protocols for where and how patients would be seen and how records would be shared with DYS clinical and medical staff. YSP staff also conducted up to six trainings per year for DYS staff as part of the regular DYS statewide training program. Additionally, other stakeholders, particularly the Department of Psychiatry of Tufts-New England Medical Center and the Medicaid management company for Massachusetts were brought more fully into the process. Tufts-NEMC child and adolescent psychiatry residents began a voluntary rotation at DYS facilities. Discussions regarding reimbursement rates were opened with the Medicaid management company. DYS recognized the need for psychiatric services and as the DYS programs that were served expressed satisfaction with the YSP, the YSP expanded to 25 sites by the end of the third year. These all represented Coordination Phase achievements.

The Collaboration Phase is characterized by the development of formal agreements, a process that was begun in the third year of the YSP. The most notable achievement in this area was a formal Memorandum of Understanding (MOU) signed by the Commissioners of DYS and DPH in the fourth year of the program. This MOU outlined the extent of the mental health needs of incarcerated youth and how DYS and DPH would collaborate to address those needs. The MOU stressed not only the service

needs of the youth but called on the two agencies to collaborate on infrastructure development for data systems, addressing training/academic needs, and collaborative research. Additionally, agreements were reached with the two other major program partners, the Department of Psychiatry of Tufts-NEMC and the Medicaid management company for Massachusetts. The voluntary training rotation of Tufts-NEMC child and adolescent psychiatry residents became a formal part of the psychiatry-training program for all child and adolescent psychiatry residents. A billing rate that took into account staff travel time, the complexity of the cases, and family consultation was negotiated with the Medicaid management company. This billing rate allowed for the YSP to recover increased revenue, particularly for initial evaluations. Entering its fourth year the YSP was in the Collaborate Phase of the GAINS model. Unfortunately, the YSP failed to make the transition to the Integration Phase.

Inherent to the Integration Phase is a sharing of decision-making and responsibilities. Dual tracks of accountability, sharing of budgetary resources, and boundary-spanning positions are cornerstones of this phase. The YSP was impacted by a number of key personnel changes in 2001 that negatively impacted on the program making a smooth transition to the Integration Phase. The DPH and DYS commissioners, who had shown an active interest in and support for the YSP program, both resigned. Additionally, the resignation of the DYS Director of Clinical Services, who was active in the planning of the YSP from inception, was a key loss for the collaboration. These resignations created a leadership vacuum. The YSP Program Director went from a bi-weekly program review meeting with a DYS counterpart to almost a year with no DYS counterpart to meet with. Although YSP staff continued to meet regularly with DYS area

staff, the ongoing communication with the DYS central office was never fully reestablished. An example of the difficulties this caused is that in the early planning of the YSP there were a number of discussions concerning the competing priorities of service to youth and the research and training needs of an academic institution (Tufts-NEMC). The initial planners came to view these priorities as complementary rather than competitive. However, with new DYS administrators the discussions of balancing service delivery with other interests again came to the fore as competitive rather than complementary goals. That concern was never resolved.

The transition into the Integration Phase was also complicated by the YSP incurring a budget deficit most years. Initial financial projections made during the Start-up phase turned out to be inaccurate because many implementation costs were underestimated. Reasons for this included YSP staff down time while in facilities because some youth were unable to be seen for security, staff coverage or space reasons. In addition, the amount of time it took to complete an initial patient evaluation was underestimated by at least an hour per evaluation.

The GAINS guideline calls for the establishment of a clear funding strategy with a funding leader who will help blend the existing funding streams. The YSP operated out of LSH, but under the umbrella of Tufts-NEMC services. All funding was channeled through the Tufts-NEMC Department of Psychiatry, which was the institutional funding leader. The funding streams provided by DYS, DPH and the Medicaid management company never fully covered the salaries of direct care providers resulting in several breakeven budgets or deficits of up to \$30,000 annually. Although the Medicaid management company had agreed to enhanced reimbursement rates, the majority of that

revenue was never realized due to billing code errors and computer problems both at Tufts-NEMC and the Medicaid management company. There was often confusion as to who was fiscally responsible for the YSP deficits. These deficits ended up being covered by LSH through surpluses in other areas of its comprehensive Tufts-NEMC contracts. The chronic under funding of the YSP, particularly for any initiative not related to immediate care, such as establishing a database system or an electronic patient record, hindered the transition to the Integration Phase.

The YSP continued to operate into 2002 when, due to a change in the academic affiliation for forensic psychiatry at LSH, the YSP began planning a change of its academic affiliation from Tufts-NEMC to the University of Massachusetts Medical School (UMass), which would become the funding leader. The Department of Psychiatry at UMass was interested in incorporating the YSP into their child and adolescent psychiatry and forensic training programs. A series of meetings were held with senior LSH, UMass, and DYS administrators regarding the transfer of the YSP to UMass. All parties were concerned at how the YSP budget deficits interfered with it achieving its service, research and academic goals. A cost analysis showed it would require more than a doubling of the DYS/DPH financial commitment to the YSP (up to \$400,000 from \$135,000) for UMass to absorb the YSP, expand staffing to cover the DYS Central Area of the state and establish a patient data system. Unfortunately, this request came simultaneously with a contracting state budget that saw both DPH and DYS suffering budget cutbacks. In light of conflicting priorities, DYS and DPH were unable to increase funding. The YSP closed in August 2003.

Conclusion

The GAINS Center program development guidelines contain a section on “Sustaining Successful Programs” once they have been established. They note five “Key Survival Strategies” identified as:

1. Plan for the future from Day One
2. Data, data, data
3. Some cost data are helpful
4. Political vs. financial stability
5. Market shamelessly (GAINS, 1999, p. 23)

What went wrong with the Youth Service Program?

First, the YSP did plan for the future from day one by working and planning with the primary stakeholders; however, it did not receive the necessary finances to develop the infrastructure support that could sustain the program into that future.

Next, data systems, which are critical for program evaluation and planning, were never established. Steady progress was made in other departments and services of LSH and Tufts-NEMC during the late 1990s in the development and implementation of electronic medical records, but the YSP made no progress in that area. The Tufts-NEMC electronic medical record system was reviewed and could have been adapted for the YSP but there were never adequate funds to work on that project. Additionally, there was no way to integrate an electronic record within the DYS record keeping system, which was manual and varied from program to program. As a result there was no formal collection of data on outcome indicators to demonstrate the YSP was an effective program at providing needed mental health care to incarcerated youth. However, although formal

data collection did not occur, the Boston Emergency Service Team, which handled all mental health emergencies at Metro Boston DYS facilities, reported anecdotally a reduction of emergency calls from programs serviced by the YSP. This would lead to a lowering of psychiatric hospitalizations for DYS youth and associated cost savings, but this data could not be properly documented. Additionally, most DYS facility administrators reported a lowering of mental health related incidents, particularly suicide gestures and youth on precautionary watches, after the introduction of YSP services. Without any formal data collection and scientifically planned program evaluations, reductions in mental health related incidents could not be presented as documenting program effectiveness.

The program never established broad political support within the human service, academic, and political arenas, and as a result could not solicit support from those areas during a time of fiscal crisis. There was strong local support of the YSP from DYS program and area administrators as well as from LSH medical and administrative staff. That local support did not travel upwards into the respective DYS and DPH central office administrations, especially after the resignations of the two commissioners that supported the development of the YSP. This led to not having a political constituency within the DYS and DPH hierarchy that enthusiastically supported the program and would ensure that financial resources were available during a time of constricting budgets.

Although innovative in design, the YSP remained parochial in operation. The program director focused on facilitating day to day operations but did not vigorously market the program's achievements. The DPH/DYS MOU was the high-water mark of

the program, but it did not lead to further strategic planning among stakeholders. Rather than being a starting point for further collaboration it became an end point.

The YSP never achieved system integration. Service integration was achieved but when the fiscal pressures mounted, there was not enough cohesion to sustain the program. The MOU outlined a number of boundary-spanning functions, including the YSP Medical Director providing monthly consultation to DYS senior administrators on issues related to mental illness and health care, but this consultation service was never utilized. System integration would have led to a joint budget and a broad range of shared goals with boundary-spanning positions that may have allowed the program to endure in a time of fiscal crisis. However, when the heavy winds of budgetary cutbacks blew and managers reassessed priorities and core functions, the overlapping of service integration could not stand up to the fiscal pressure. Had the knitting of a system integration approach been achieved, the Youth Service Program may have been better able to sustain such a buffeting.

The mental health problems of incarcerated youth represent a need that if unmet will often contribute to future disorders, disabilities and incarceration as adults for many youth. The public health approach of identification and treatment of these disorders at the earliest possible time is the most efficacious means to address the problem. The Youth Service Program provided a model to address the psychiatric needs of incarcerated youth, but without full institutional support and funding it was unable to be sustained. Nonetheless, the history of the program illustrates the depths of the problem and highlights the areas that must be addressed for such a program to succeed.

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