Shaping the Jail Inreach Project: Program Evaluation as a Quality Improvement Measure to Inform Programmatic Decision Making and Improve Outcomes

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Abstract: The Jail Inreach Project was initiated in 2007 as a pilot program by Healthcare for the Homeless–Houston, an FQHC serving homeless individuals in Harris County, Texas, as a collaborative effort with the Harris County Sheriff's Office and the Mental Health Mental Retardation Authority of Harris County. It addresses the disproportionate number of homeless individuals with behavioral health diagnoses cycling through the Harris County Jail without provisions for continuity of care. Throughout the years, several evaluations have been conducted to inform programmatic planning and assess the success of the program on affecting patterns of recidivism of mentally ill homeless clients being served. Findings reinforce the importance of linking releasees to services immediately upon release as a measure for breaking the cycle of repeated incarceration and chronic homelessness. This paper illuminates characteristics of a successful intervention by examining three program evaluations conducted at different times in the program's history. It further illustrates how program evaluation has been utilized to help shape the program design and related policies.

Key words: Homeless people; mental health; delivery of health care, integrated; community mental health services; program evaluation.

Estimates of the prevalence of severe mental illness among those who are homeless vary greatly, though it is well accepted that rates are much higher in this population than in the general population. The 2007 U.S. Point-in-Time count estimated that there were 672,000 persons who were homeless on a given night. Of them, 58% were in shelters (single night, emergency shelters or transitional living facilities, and of those who were, over a quarter suffered from severe mental illness.[1] A 2006 Bureau

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of Justice Statistics Special Report cites a higher prevalence of mental illness among inmates who had been homeless in the previous 12 months (17% compared with 9%) and that 64% of those who were incarcerated in a local jail has reported any type of mental health problem.[2] People who are homeless tend to suffer poor physical health and have increased rates of contact with the criminal justice system. In 2007, an estimated 79,300 adults were unable to access public or private mental health services in Harris County, Texas.[3] Lack of access and continuity of care is reinforced by insufficient funding, a crisis-only system, and inappropriate utilization of the criminal justice system as a health care provider.[3]

Harris County operates the third largest jail in the Unites States. The Bureau of Justice statistics reports an increase of the average daily Harris County Jail (HCJ) population from 9,430 in 2007 to 11,361 in 2009, number that exceed the capacity of the jail (in 2007 HCJ was operating at 105% to capacity, and in 2009 it was operating at 121% of capacity).[4] Each month, clinicians within the jail write more than $1 million in prescriptions, and it is now the largest provider of mental health services in the state of Texas (second largest in the nation), where roughly a quarter of the inmates are being treated with psychiatric medication(s).[5,6] Psychiatric care obtained during incarceration rarely provides for continuity upon release. A consequence of the current system, which lacks mechanisms that provide access to and continuity of care, is the influx of individuals who are unable to receive essential services outside of institutions that are ill-equipped or designed to provide primary and behavioral health care, such as jails and hospital emergency centers. Furthermore, use of such services often does not occur until prompted by the onset of a mental health crisis, perhaps as a result of the abrupt discontinuation of psychiatric medications/services and lack of access to community health care services upon release from jail or from a hospital. This ineffective and disjointed system results in many homeless mentally ill people cycling between the streets/shelters, emergency centers and jail cells—the so-called revolving door phenomenon[7] and highlights the need for timely discharge planning and linkages to community health services.

Delivery of health care in the correctional environment has many challenges. Most of the detainees are in need of medical services, a disproportionate number suffer from mental illness, and few have accessed primary or preventive health care.[8] The patient population in jail tends to have developed chronic medical problems much younger than the general population. Since many detainees have poor health and inadequate diets and and/or behavioral illnesses (mental illness/addiction), they are often likely to have a higher incidence of medical conditions.[9,10] Delivery of care within the jail and provision of discharge planning services are also complicated by the usual short length of stay and sometimes uncertain date of release. Furthermore, a significant percentage of the detainee population eventually returns to jail.[9,10] Finding ways to reduce the recidivism rate, particularly as it relates to use of substances or compliance with psychiatric care, greatly benefit not only the individual but the community at large.[11]

Healthcare for the Homeless–Houston (HHH) acts as a safety net to bridge the gap in primary and behavioral health services to promote continuity of and access to care. It serves a vulnerable and marginalized sub-population of homeless individuals, who are uninsured and who lack access to and/or the capacity to navigate larger health care systems, including those with severe mental illness and chronically homeless people. The

most common diagnoses in HHH medical clinics are mental illnesses. The Jail Inreach Project, an intensive medical case management program, links homeless releasees who suffer from mental illness and/or substance abuse to essential services immediately upon release. Its success is associated with several elements: an established relationship between the case manager and patient while they are incarcerated, developing a patient-centered release plan and providing the option for daytime release (rather than middle of the night) where the case manager meets the patient at the jail at the time of release and literally walks with them to HHH's nearby clinic. At that time, patients are provided with immediate medical, psychiatric, and case management services. This model reduces the number of patients who are lost to care between time of release and their scheduled appointment. It interrupts the revolving door phenomenon and reduces arrests rates and number of days in jail, thus reducing the associated excessive cost to the community.[12]

In May 2006, HHH hired a social worker as the program manager and case manager designated to the Jail Inreach Project. The first several months were spent 1) establishing Memoranda of Understanding to facilitate the transfer of medical records between several systems of care, and 2) developing policies and procedures for case managers to access inmates. A Mental Health Mental Retardation Authority (MHMRA) of Harris County researcher, contracted by HHH, began referring detainees who met admission criteria to the project in December 2006. Additional detainee referrals were made by MHMRA forensic clinicians and case managers, other detainees, family members and friends of detainees, jail guards, and self-referrals by mail. Participation in this program was based on the following criteria: 1) is detained in the Harris County Jail, 2) has a behavioral health diagnosis(es), 3) is expected to be homeless upon release, and 4) is a "frequent flyer" (a term referring to those with high arrests rates and utilization of mental health services while incarcerated). The first client was seen in the Harris County Jail on January 12, 2007. The case manager screened referrals from all sources to verify that they met the criteria for the target population of this project. A planning and evaluation group was formed that included the program's case manager, MHMRA researcher, Medical Director of the Harris County Jail, and HHH research and management staff.

Case management services include assisting the detainee in obtaining continued medical and/or psychiatric care as needed, developing a plan that would enable him/her to access supportive services in the community, and locating, when possible, safe housing upon release. Additionally, daytime release, rather than an independent midnight release (the standard operating procedure of the Harris County Jail system), was offered in order to facilitate the case manager's coordination of medical care, housing, and social services for the patient and prevent them from immediate return to the streets. Offering an alternative to middle-of-the-night release has proven to be one of the elements of the program with the greatest impact.

Healthcare for the Homeless—Houston (Figure 1) established the Jail Inreach Project with the specific goals of: 1) Fostering a recovery management framework that emphasized continuity of care for homeless individuals who had prior experience with the criminal justice system and had been diagnosed with a behavioral health condition; 2) Decreasing average number of arrests by improving timely provision of treatment, diversion and continuity of care; 3) Decreasing average number of arrests of homeless inmates with serious mental illness by addressing housing instability, substance abuse/

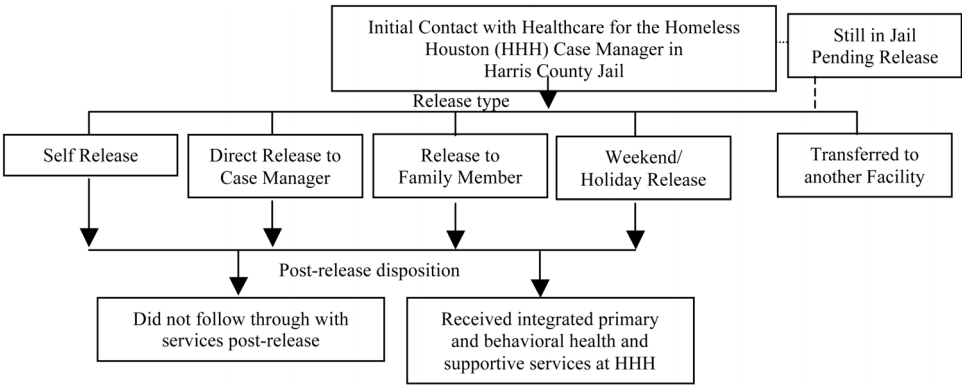

Figure 1. The jail inreach project program roadmap.

dependence, rehabilitation of functional impairments and related wrap-around service needs; and 4) Connecting homeless releasees in need of on-going mental health treatment with appropriate aftercare. The analysis discussed in this paper examines the program's effectiveness at achieving goals 2–4.

Methods

At the inception of the program, HHH case managers developed a spreadsheet in Excel to house data on all inmates contacted. An online database was developed in 2008 to house the data securely, to enable multiple users to input information, and to allow administrators and the research staff to access data for evaluation purposes. It collects the following data: the unique jail system personal identifier; name; medical record number; behavioral health diagnosis(es); referral source; date of case manager's first visit to the individual in the Harris County Jail; number of jail visits made to that client; number of times the client visited an HHH clinic post-release; any client benefits (e.g., Medicaid, SSI); whether the client had valid identification; pending court date; release date; the primary case manager; type of release; preliminary referral plans; and disposition. Demographic information was later obtained for each client by HHH *via* a Memorandum of Understanding signed with MHMRA and the Harris County Sheriff's Office at the inception of the project.

Evaluation 1: In 2008, a program summary was compiled with preliminary program outcomes using descriptive data analysis.

Evaluation 2: In 2010, analysis examined the effects of direct release to a case manager *versus* traditional self release in order to: 1) to evaluate the characteristics of inmates who did not choose to be released directly to the care of their case manager; 2) to determine the number and percentage of inmates that were linked to services and relationship with type of release (direct *versus* indirect); 3) to determine if there was a relationship between participants' personal characteristics and outcomes; 4) to determine what outcomes were a function of release, controlling for characteristics.[13]

Evaluation 3: (2011) Focuses on outcomes associated with number of jail admissions, and number of charges and days in jail during the year following engagement in the Jail Inreach Project compared with one year prior to engagement in the program. In 2010, further evaluation was conducted.

For evaluation 2 and 3, arrest records were obtained for all participants of the program and dependent measures (offense rates for the one-year pre- and post-intervention periods) were submitted to two-way (pre-post) repeated measures analysis of variance. All evaluation efforts were approved by the Internal Review Board of Baylor College of Medicine.

Results

Evaluation 1: Preliminary assessment of first 80 inmates contacted by the Jail Inreach Project (2008) concluded:

1) Detainees who were diagnosed with substance abuse and who were without a diagnosed serious mental illness who declined the offer of a daytime release (10 detainees) had not, in 100% of cases, followed through with appointments and/or referrals to other support services.
2) Based on anecdotal evidence, relationship building with detainees prior to their release may have a delayed effect, eventually facilitating successful outcomes. In two cases, detainees who missed appointments following release eventually contacted the case manager for assistance. In two separate cases, detainees who were released unexpectedly called the case manager to pick them up at the jail (these four cases are anecdotal accounts of the 80 total patients being analyzed). All four of these detainees were housed and/or referred to appropriate services.
3) Further based on anecdotal/qualitative evaluation, a lack of short term housing resources in the community, combined with wait lists and strict admission requirements for longer term housing and treatment programs made it difficult for releasees to be housed immediately upon release, even with case management support. There is a need in the community for short-term housing which will provide releasees a place to stay while obtaining identification and/or waiting to get into more permanent housing and/or treatment programs.

Evaluation 2: The 2010 evaluation examining the characteristics of those who are successfully linked to services via this program found that release type is highly significant in predicating linkage to services (x^2=97.3, df=2, p=.00). A beta analysis concluded that those who elected self release (not to the care of a case manager) are 6.21 times less likely to show up for their post-release appointment at the HHH (Table 1) clinic and subsequent linkages to services post release than those who opt for a direct daytime release to their case manager (significant at the 0.001 level).[13]

Evaluation 3: The evaluation using data from the inception of the program (January 2007 to April 14, 2011) included 840 individuals who had been referred to the program, with 490 successfully linking to services post-release. The findings mirror that of similar findings in 2009.[12]

Table 1.

SUMMARY OF 2009 AND 2011 PROGRAM EVALUATION RESULTS OF ARREST PATTERNS OF PARTICIPANTS IN THE JAIL INREACH PROJECT

	2009				2011			
	Pre		Post		Pre		Post	
	Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.
Days in Jail	64.96	73.67	41.79	69.68	60.15	65.65	21.16	48.32
Bookings	1.57	1.52	0.77	0.98	1.63	1.34	0.70	1.05
Charges	1.93	2.05	0.85	1.14	1.66	1.35	0.71	1.05
Misdemeanors	1.31	1.86	0.36	0.78	1.03	1.32	0.52	0.98
Felonies	0.63	0.91	0.49	0.87	0.62	0.78	0.18	0.42

Tests of Differences Between 2009 and 2011 Samples
(Repeated Measures ANOVA Values)

	df	F Value	P
Felonies	1	0.049	0.764
Misdemeanors	1	3.926	0.048*
Bookings	1	0.076	0.846
Charges	1	3.671	0.056

* Fewer Pre-Treatment Misdemeanors were incurred by the 2011 sample (p=.016)

2011 Tests of Pre-Post Differences (Repeated Measures ANOVA Values)

	df	F Value	P
Felonies	1	53.429	<.001
Misdemeanors	1	20.718	<.001
Bookings	1	59.496	<.001
Charges	1	60.964	<.001

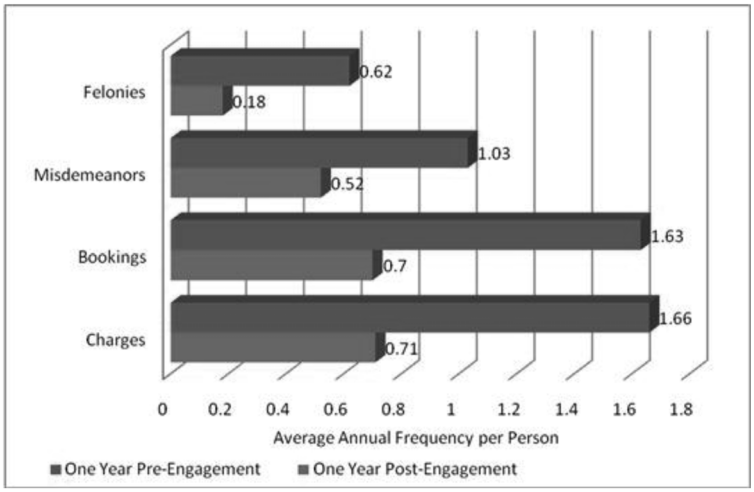

Figure 2. Summary of results from January 1, 2007 to April 14, 2011.

Discussion

Looking at all three program evaluations in one document helps to examine how all findings have helped shape and inform the overall program development and policy. Consistent with findings from other programs and studies, mechanisms that facilitate relationship building are essential to the success of the Jail Inreach Project (Figure 2).[14] Findings on the significance of release type and the overall reduction in arrest rates are proxy measures of the importance of the patient-provider relationship and its effect on the engagement of vulnerable populations in long-term care (evaluation 1). As was outlined in a previous publication, at the onset of the program, detainees were called from their cells to meet with their case managers in interview rooms on the first floor of the jail, an arrangement that physically separated clients and case managers by glass.[12] It is concluded through the analysis implicating the importance of daytime release, and thus the importance of building a trusting relationship as a whole, that this physical separation inhibited building trusting relationships with clients. Policies for accessing clients within the jail were negotiated and changed to allow for case managers to meet inmates in their cell or a common area. This was not only more efficient in terms of time, but also as a mechanism more conducive for communication and the establishment of a trusting relationship.

Existing literature, formal program evaluation and anecdotal accounts from case managers reinforce the correlation between release type and successful linkage to services post-release. Those who opt for direct release are much more likely to engage in care (be linked to services)(evaluation 2), and client's likelihood of agreeing to a direct release often seems contingent on the rapport between client and case manager. This sparked discussion about whether participation in the program ought to require clients to opt for a direct release as a measure for efficiency for case management and clinical time. It was decided, however, that such a requirement would not align with the overall

mission of the organization and the model of patient-centered care. It was observed that as HHH's skill set progressed with time and program expertise grew, the linkage rate for individuals who expressed a commitment to use our services grew from 43% in 2007 to 67% in 2011 (evaluation 3).

Though much has been published on the effectiveness of using an integrated primary and behavioral health care model, little has focused on how it translates to those who are homeless and have a behavioral health diagnosis. Consistent with the literature, repeated bookings into the Harris County Jail illustrate the failure of a system inhibits access to essential and stabilizing mental health care within the community and therefore perpetuates the use of correctional facilities as primary sources of accessible behavioral health care, a function for which they are not designed or equipped. Program evaluation helped influence program design and implementation and has helped inform necessary adaptations in policies and procedures, which helped contain costs and maximize efficiency and effectiveness of the Jail Inreach Program. Findings further reinforced the importance of linking releasees to services immediately upon release as a measure for breaking the cycle of repeated incarceration and chronic homelessness. There are currently discussions regarding future evaluations that focus on specific health-related outcomes of participants, more quantitative exploration of the importance of relationship building between providers and clients, and more in-depth analysis on cost savings.

Notes

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