Evaluation of the Chronic Homeless Services and Housing (CHSH) Project

Final Report
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THE UNIVERSITY OF UTAH

Utah Criminal Justice Center

COLLEGE OF SOCIAL WORK
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National estimates indicate that 10-20% of all homeless individuals in the United States (U.S.) are chronically homeless (McCarty, 2005; United States Interagency Council on Homelessness, 2014). The 2013 Utah Homeless Point-In-Time Count identified 495 chronically homeless persons, comprising three percent of the total homeless population in the state (Wrathall, Day, Ferguson, Hernandez, Ainscough, Steadman, et al., 2013). Chronically homeless individuals often have a variety of health and social needs that must be addressed, in addition to housing, in order to improve their long-term outcomes. As part of the Point-in-Time Count/100,000 Homes Campaign, 678 homeless individuals were surveyed in Salt Lake County in January, 2013; of those, nearly half (42%) were classified as medically vulnerable, including 122 who had tri-morbid health or mental health conditions (Wrathall et al., 2013). Kraybill and Zerger (2003) found that at the service delivery level, the most effective programs for homeless persons emphasized the provision of integrated care through interdisciplinary teams typically made up of medical, mental health, substance use, and social service providers.

In September of 2011, The Road Home received funding through a Substance Abuse and Mental Health Services Administration (SAMHSA) grant to develop, implement, and evaluate the Chronic Homeless Services and Housing (CHSH) project over the course of a three year period. The CHSH project was designed to fill existing gaps by providing resources and building relationships at the point of client contact, utilizing an interdisciplinary outreach team to deliver services and staying close to the client at every point during the housing process. The goal of the CHSH project is to use a Housing First approach to stably house chronically homeless individuals who have been the most challenging to engage, have a history of substance abuse and/or mental illness, and who have never been housed or who have previous, unsuccessful housing placements. The Housing First model is defined as an intervention in which housing resources are provided with no requirement or contingencies (e.g., abstinence or employment). When compared to treatment first housing programs, Housing First programs, implemented with chronically homeless persons who have co-occurring mental illness and substance abuse, are associated with higher housing rates, increased residential stability, and fewer days of homelessness (Tsemberis, Gulcur, & Nakae, 2004; Padgett, Gulcur, & Tsemberis, 2006).

The CHSH project is based on a Housing First philosophy implemented in the form of a modified Assertive Community Treatment (ACT) team. This interdisciplinary service delivery model is intended to provide long-term, comprehensive medical, social, and mental health support to clients with severe mental illness in order to keep them housed and in the community. ACT teams meet daily to monitor client change and provide intensive and frequent outreach to clients (Tsembris, 2010). When compared to standard case management, chronically homeless adults with severe mental illness who receive ACT (or similar) services demonstrate better outcomes with respect to decreased homelessness, decreased severity of psychiatric symptoms, and higher self-reported quality of life (Coldwell & Bender, 2007; Gilmer, Stefancic, Eitner, Manning, & Tsembris, 2010). The combination of a Housing First philosophy and ACT-type service delivery for homeless persons who are mentally ill is associated with fewer days of homelessness and reduced contact with the criminal justice system and emergency medical services (Nelson, Aubry, & LaFrance, 2007) as well as increased residential stability and less depression and anxiety (Young, Barrett, Engelhardt, & Moore, 2014).

The Road Home identified the Utah Criminal Justice Center (UCJC) as the evaluation partner of the CHSH project on the SAMHSA grant.

Study Procedures

The data collection, performance measurement, and performance assessment is comprised of two parts: (1) tracking the CHSH project's ongoing efforts to develop, expand, and implement collaborative, evidence-based services for the chronically homeless, and (2) tracking client characteristics, interventions, and outcomes. The first portion of the CHSH evaluation, addressing program implementation, has been documented extensively in previous reports (http://ucjc.utah.edu/homeless-2/chsh) and will not be discussed in the current report. The second part of the CHSH evaluation involves tracking client characteristics, interventions, and outcomes in order to answer the following research questions:

1. Who does the program serve? (Profile of clients, including demographics, homelessness, criminal history, substance abuse, mental health, treatment history, etc.)
2. What is CHSH providing to clients? (Profile of services utilized during CHSH participation, including housing, case management, substance abuse and mental health treatment, benefit enrollment (e.g., food stamps, general assistance) and support services)
3. Is CHSH succeeding? (Measures include: clients placed in housing, housing retention, enrollment in benefit programs, access to substance abuse and mental health treatment, use of emergency medical services, contact with the criminal justice system, etc.)
4. Who has the best outcomes in CHSH? (Analysis of client characteristics by program outcomes: housing placements and retention, substance abuse and mental health treatment, criminal justice contact, use of emergency medical services, etc.)
5. What barriers exist for clients who do not reach desired outcomes? (Profile of barriers that clients experience throughout enrollment in CHSH)[1]

Table 1 lists the primary data sources and measures used in this report.

Table 1 Data Sources for Client Characteristics and Services Received

Data Source	Description
The Road Home/CHSH	
CHSH Client Track case notes and records that document demographics and ongoing services provided to clients. Data include education, employment, chronic health assessment, chronic homelessness assessment, length and frequency of contact, services provided, goals set, goals kept, and barriers to reaching goals. Client Track also provided data on homelessness history and shelter use (i.e., number of shelter nights since December, 1998).	
Government Performance and Results Act (GPRA) Surveys	
Self-reported data collected at Intake, 6 months, Exit and/or End of program covering: demographics, education, employment, income, family, living conditions, drug use, alcohol use, crime and criminal justice, mental health, physical health, treatment/recovery, military service, violence/trauma, and social connectedness. This report provides Intake, 6-month and Discharge/Final GPRA results.	

[1] Initially, the research plan also included one additional research question ("What program components and services lead to the best outcomes?"). The available data, however, did not allow research staff to analyze this question.

Data Source	Description
Salt Lake County Division of Behavioral Health Services (DBHS) Records	
History of substance abuse and mental health treatment with Salt Lake County Behavioral Health for 2 years prior to first CHSH contact and while receiving services through CHSH. Data includes treatment date and treatment type.	
Salt Lake County Housing Authority and Salt Lake City Housing Authority Records	
History of housing with the Salt Lake County Housing Authority and the Salt Lake City Housing Authority. Data includes: prior housing, application status, and eviction/termination	
Salt Lake County Sheriff's Office (OMS)	
Jail bookings into the Salt Lake County Adult Detention Center for the 2 years prior to 1st CHSH contact and while receiving CHSH services are presented in this report. Data includes: booking date, offense/booking type (e.g., new charge, warrant of arrest, bench warrant, hold), charge type and severity, release date and type, offender demographics, and court case numbers (when available).	
XChange/CORIS	
Text documents with court case information that is searchable by name, date of birth, court case number, court location, and/or date. Documents were used to identify open cases in Utah District and Justice Courts during the 2 years prior to 1st CHSH contact and while receiving serviced through CHSH.	
Valley Mental Health Records	
Services provided to Enrolled clients that are paid for through Medicaid funds. Data includes service type, service frequency and duration, and cost information.	
Fourth Street Clinic	
History of emergency room visits at five area hospitals. Data includes date of visit.	

Defining the Sample

Throughout the report, *Engaged* refers to individuals who have been referred to CHSH and whose eligibility for and/or interest in the program are under consideration. As part of the referral process, potential CHSH clients sign a limited release of information (ROI) that allows program staff to contact them and partner agencies to gather information necessary to determine eligibility. Engaged clients may have ongoing contact with CHSH staff, and receive services related to recruitment and screening, but have not signed the ROI that allows for the full range of interdisciplinary services the program provides, which rely on information sharing and collaborative case management. All clients are considered Engaged at the point of referral; some of those clients become *Enrolled*, if and when they are found to be receptive to, and suitable for, the program. Enrolled clients may be discharged, if it is determined that they do not need the intensive case management provided by CHSH or if they have been housed and stabilized in a location wherein supportive services are provide on-site. Information and analyses throughout this report will primarily focus on Enrolled clients; in some cases, those analyses will look at clients during both *engagement* and *enrollment* phases. Throughout the report, the terms *post-enrollment* and *post-CHSH* refer to clients' experience after formal enrollment and include both currently enrolled and discharged clients.

The length of the engagement phase varies; clients who are resistant to services may remain in the engagement phase for months. This prolonged engagement is in keeping with the ACT model, which

emphasizes assertive recruitment strategies and flexible service delivery. For the remainder of the report, "Intake" refers to the date that the Intake GPRA form was completed, which signifies the point when the client is fully enrolled in the program. Due to revised eligibility requirements during the first part of the project, several clients have GPRA and enrollment dates that are months apart; in those cases, the enrollment date was used as the Intake date.

Engaged clients who are not eligible for CHSH, are not interested in participating, or cannot be located are referred to the Chronic Homeless Program (CHP) at The Road Home in order to be matched with appropriate services. Services provided to Engaged clients—which comprise a substantial portion of program resources—will be documented in the "What CHSH Provides to Clients" section of this report.

Table 2 CHSH Sample

	N
Engaged Clients[1]	55
Enrolled Clients[2]	82
Total	***137***

[1] This includes all clients referred to the program with which staff had at least one contact as of June 30, 2014.
[2] Twenty-eight Enrolled clients had been discharged from the program as of June 30, 2014. The majority of these (17) were discharged to a less intensive supportive housing program after being housed and stabilized while enrolled in CHSH. Five clients died while enrolled in the program. Figures in this report exclude clients enrolled after June 30, 2014.

Results

Who Does the CHSH Program Serve?

Data from Intake assessments (both GPRA and The Road Home) were used to characterize the demographics, homeless history, and physical and mental health of Enrolled clients (N = 82).

Demographics. Client demographics collected at Intake are shown in Table 3. The majority of clients were male (66%) with an average age near 50. The majority of clients (76%) were White. Approximately half of clients (51%) indicated that they had children; however, it is likely that a majority of these children were adults. None of the clients had custody of their children at Intake. A small minority of clients (11%) had a history of military service.

Table 3 Demographics at Intake[1]

Total Sample (N)	*82*
Male (%)	66
Age (Mn)	49
Min, Max	26, 72
Hispanic or Latino (%)	4
Race (%)	
White	76
Black/African American	10
Asian	2
American Indian/ Alaska Native	12
Native Hawaiian/Pacific Islander	2

Total Sample (N)	*82*
Veteran/ Served in Military (%)	11
Percent with Children (%)	51
Number of children (Mn)	3
Min, Max	1, 9

Education and employment. One-third (38%) of clients had a high school diploma (or the equivalent) and almost one-quarter (22%) had attended some college (see Table 4). No clients were employed at Intake and only a few (8%) indicated that they were looking for work. Very few clients described themselves as retired, which was expected given that the CHSH sample was primarily comprised of individuals who do not have long-term work histories.

Table 4 Education and Employment

Total Sample (N)	*82*
Education	
Enrolled in School or Job Training Program (%)	
Full-time	3
Part-time	3
Education Level (%)	
Less than High School	33
High School/Equivalent	38
Some College	22
Unknown	7
Employment	
Employed (%)	0
Unemployed (%)	100
Looking for work	8
Disabled	54
Retired	8
Not looking for work	27
Other	4

History of homelessness. Based on official shelter records, the vast majority (93%) of clients had stayed at The Road Home's Emergency Shelter prior to program involvement (see Table 5). Between December 1, 1998 and Intake, clients spent an average of 440 nights in the shelter. As a whole, these 82 individuals accounted for a total of 33,416 shelter nights during this time.

Table 5 Homeless Shelter Use since December 1998

Total Sample (N)	*82*
Percent stayed in the Shelter at least one night (%)	93
Total # of nights[1]	33416
Average # of nights per client (Mn)	440
Min, Max	1, 3117

[1] Total count for those with at least one shelter night

At Intake, almost half of clients (47%) reported staying at an emergency shelter the previous night and one-fifth (19%) had stayed on the streets or somewhere not meant for human habitation (see Table 6). More than three-quarters (79%) had been continuously homeless for at least one year.

Table 6 Living Situation at Intake

Total Sample (N)	*82*
Living Situation	
Where did you stay last night? (%)	
Emergency Shelter	47
Place not meant for habitation (streets, etc.)	19
Jail/Prison/Juvenile Detention Center	4
Family/Friend Residence	10
Other	19[4]
Chronic Homelessness: (%)	
Continuously homeless for one year	79
Homeless four times in three years	27

[4]This includes hotel/motel not paid for with emergency shelter voucher, substance abuse/residential treatment facility, and transitional housing for homeless persons.

Physical and mental health. Information collected on The Road Home Intake forms demonstrated that CHSH clients were coping with a variety of physical and mental health conditions, many of which were chronic and untreated (see Table 7). Nearly all clients (93%) were identified as having a chronic mental health condition; however, only half (55%) were receiving services related to that diagnosis. Close to half of clients also suffered from alcohol abuse (43%), drug abuse (49%), or a chronic health condition such as heart disease or diabetes (60%). Only six percent of clients with identified alcohol abuse were receiving services at Intake and only 15% of clients with both drug and alcohol abuse were receiving services.

Table 7 Health Conditions

Total Sample (N)	82		
Health Concern	%	*% chronic*[1]	*% receiving services*[2]
Alcohol abuse	43	*91*	*6*
Chronic health condition	60	*100*	*61*
Developmental disability	16	*100*	*23*
Drug abuse	49	*85*	*28*
Mental health	93	*93*	*55*
Physical disability	34	*100*	*64*
Substance abuse (drug & alcohol)	24	*95*	*15*

[1] Of those who were identified as having the health condition, what percentage had a chronic condition.
[2] Of those who were identified as having the health condition, what percentage was receiving services at Intake.

History of violence or trauma. The majority of CHSH clients (73%) indicated that they had witnessed or directly experienced violence or trauma at least once in their life (Table 8). Most of those who had experienced some prior traumatic event also indicated that they had suffered psychological symptoms as a result, most commonly avoidant behaviors (82%) and hyper vigilance (82%).

Table 8 History of Violence and Trauma

Sample (N)= 82	
Topic Addressed	% of Clients
Experienced violence or trauma in any setting[1]	73[2]
As a result of that experience have you (%):	
Had nightmares/intrusive thoughts	73
Tried hard to avoid thinking about it	82
Felt constantly on guard or watchful	82
Felt numb and detached from surroundings	73

[1] Includes school violence, family violence, sexual assault, psychological maltreatment, natural disaster, terrorism, neglect, and traumatic grief.
[2] Percent of clients who endorsed statement on at least one GPRA assessment

CHSH clients were also asked about recent experiences of violence. At Intake, 22% (of 67 clients who were asked the question) indicated that they had been physically hurt at least once in the previous 30 days.

Summary. The preceding data indicate that the CHSH program was successful at recruiting and enrolling its intended population. Overall, clients were older and unemployed, with a long history of homelessness. Almost none of the clients were looking for work or in job training programs at Intake, largely due to the fact that the majority had chronic, untreated physical and mental health conditions. One-fifth of clients had experienced recent physical violence and the majority also identified a history of trauma that resulted in ongoing psychological symptoms.

What Is CHSH Providing to Clients?

Service delivery model. In keeping with the ACT model, CHSH services are interdisciplinary, intensive, and provided *in vivo* (SAMHSA, 2003). Substantial resources are devoted to recruiting, and maintaining, clients in the program. Additionally, service delivery is driven by clients' perception of their own needs and long-term goals, with respect to type of service, frequency of contact, and location of housing. The following analysis of the program's service delivery model is based on data from The Road Home and relies on SAMHSA's ACT Fidelity Scale Protocol (SAMHSA, 2008).

Staffing structure. The CHSH program employed six full-time (two case managers, one housing case manager, two clinical staff, and one project director) and two part-time staff (one clinical psychologist, at .25 FTE, and one nurse practitioner, at .25 FTE). For the latter half of the project, the team also had a full-time volunteer (through Volunteers of America). When considering only Enrolled clients, the client/staff ratio was 11:1, which is close to the recommended consumer/staff ratio, which ranges from 20:1 to 10:1 (SAMHSA, 2008). When considering all clients (Enrolled and Engaged, N=137), the client/staff ratio was 18:1, which is still within the accepted guidelines; however, this larger ratio would be expected during the early stages of a new program, as new clients are being recruited and assessed for eligibility.

ACT is based on a team approach to service delivery. As such, SAMHSA's ACT Fidelity Scale indicates that clients should have frequent interactions with multiple staff members. Within the CHSH program, client interactions averaged more than one staff member per contact (average was 1.3 staff per contact) and one-fifth (21%) of program contacts involved more than one staff

member (often a clinician and a case manager). An additional nine percent (9%) of contacts involved a representative from another social service agency, most commonly: staff from The Road Home, case managers from the housing facilities where clients live, and medical staff from Fourth Street Clinic.

CHSH program staff met weekly to review clients and cases. As noted in earlier reports, the purpose and frequency of staff meetings evolved over the course of the project (see previous reports for detail). Overall, however, staff met as a group 3-4 times per week to discuss clients.

In vivo services. In accordance with the ACT model, client interactions were primarily community-based (see Table 9). As documented in case notes, more than two-thirds of the work that CHSH did with clients happened outside of the program office (69%). The ACT Fidelity Scale recommends that 60-80% of face-to-face contacts happen in the community; given that the numbers below include all contacts, the CHSH program is well within this range, especially if phone and advocacy contacts were removed.[2] During engagement, close to one-third of contacts took place at social service agencies (other than CHSH), which fits with the project's goal of facilitating access to support and resources for service-resistant clients. The proportion of contacts that took place in other social service agencies dropped to 15% after enrollment, which may reflect clients' increased ability and/or willingness to access those services on their own. After enrollment, client contacts most frequently took place in the clients' residence, which aligns with an ACT team service delivery model.

Table 9 Location of Client Contacts (Enrolled Clients)

	Engagement	***Enrollment***	***Total***
Number of contacts (n)	*867*	*7042*	*7909*
Location (%):			
CHSH office	40	32	33
Other agency	32	15	17
Client residence	7	41	37
Jail/institution	5	2	2
Outside/street	10	5	6
Other	6	7	7

Frequency and intensity of services. On average, Enrolled clients were in the engagement period for 69 days (see Table 10); however, this varied greatly, ranging from 0 to 456 days (5 clients were enrolled on the first contact and had no days in engagement). Engaged clients were in the engagement period for substantially longer (Mn=203 days, ranging from 0 to 862 days). CHSH staff was deliberate in the decision to reserve program slots for clients with lengthy engagement periods (which often indicated that the client was resistant to services). This is central to the ACT model, which relies on assertive engagement mechanisms to successfully engage service-resistant clients (SAMHSA, 2008).

Clients received services in both the engagement and enrollment periods. On average, Engaged clients received CHSH services every 23 days and Enrolled clients every four days. As intended, CHSH services were in-depth, both in terms of frequency and intensity, as indicated by the fact that

[2] Case notes were not coded in a fashion that allowed the research team to consistently distinguish between face-to-face contact and other types of contact (e.g., phone calls with client, phone calls with other service providers regarding client).

Enrolled clients received services almost two times per week on average. When looking only at case management and counseling services, client interactions averaged almost one hour (Mn=51 minutes, not shown in table). At the time of this report, staff had recorded over 9,113 hours of case management and counseling contacts with Enrolled clients and an additional 818 hours with those clients during the engagement period. Since the inception of the CHSH program, staff spent the equivalent of 474 hours (or 28,412 minutes) providing case management or counseling to Engaged clients who were never enrolled in the program. On average, individual case management and counseling contacts with Engaged clients lasted for more than 40 minutes.

Table 10 Client Contact with CHSH Program Staff

	Engaged	Enrolled
	Mn (min, max)	Mn (min, max)
Number of days		
in Engagement period	203 (0, 862)	69 (0, 456)
in Enrollment period	--	497 (75, 882)
Number of Services		
during Engagement period	16 (1, 93)	15 (1, 85)
during Enrollment period	--	165 (20, 739)
Average Minutes of Contact per Client[1]		
during Engagement period	557 (4, 3866)	654 (2, 4170)
during Enrollment period	--	6668 (885, 27799)
Days between Services		
during Engagement period	23 (0, 142)	6 (0, 53)
during Enrollment period	--	4 (1, 18)

[1] Minutes reflects time spent providing case management and treatment services. Time spent on other activities was not consistently recorded in the data.

Type of service provided. Clients' receipt of discrete services, by type, is presented in Table 11. The term "concrete services" refers to instrumental forms of support, such as: transportation, bus tokens, clothing vouchers, food boxes, and fees associated with obtaining identification documents. Housing refers to both support services—such as searching for an apartment or intervening with a landlord on behalf of a client—and tangible services, such as assistance with rental deposits and utility payments. When looking at Enrolled clients, the breadth of services provided fits within SAMHSA guidelines for an ACT team, which is based on providing a wide range of treatment and support services, including: housing support, case management, counseling, substance abuse treatment, and rehabilitative services (SAMHSA, 2008).

In terms of the type of service received, the engagement phase appeared similar for both Engaged and Enrolled clients, with the following exceptions: street outreach comprised a bigger proportion of the services provided to Engaged clients (20% of Engaged clients with an average of 128 minutes per client, vs 11% of Enrolled clients, with an average of 96 minutes per client). This likely reflects the fact that Engaged clients were less willing than Enrolled clients to seek out services and contacts were instead initiated by staff.

Compared to the engagement phase, more Enrolled clients received services related to mental health counseling, housing, and concrete services after enrollment. The comparatively larger amount of concrete services provided after engagement reflects the goals and objectives of the CHSH program, which sought to provide clients with long-term support that would facilitate and maintain clients in housing.

Table 11 Services Provided by Enrollment Status

	Engaged	Enrolled	
Total Sample (N)	*55*	*75*	*82*
		Engagement	*Enrollment*
Type of Service Provided: (% receiving (Mn # of services))			
Case management	93 (12)	91 (11)	100 (109)
Concrete services	49 (3)	46 (3)	98 (28)
Counseling	32 (4)	38 (3)	90 (24)
Housing	4 (1)	11 (2)	73 (4)
Street Outreach	20 (4)	11(2)	23 (3)
Substance abuse	4 (4)	4 (3)	20 (5)
Other[1]	36 (2)	27 (2)	35 (4)

[1] Other includes: conducting assessments, job-related activities, life skills training, and other services that do not fit into existing categories.

Concrete services, as described in Table 11, are inclusive of vouchers provided to clients to obtain services (e.g., transportation passes, fees to obtain identification cards) and basic necessities (e.g., food, clothing). One-fifth (18%) of Engaged clients received this type of voucher; of those, the average amount was $38 (ranging from $0.89, for a bus token, to $125). During the engagement phase, a similar number of Enrolled clients (20%; n=16) also received a voucher, with an average amount of $32 (ranging from $15 to $86). After enrollment, more than half of clients received at least one voucher (59%; n=46), with an average amount of $39 (ranging from $3 to $154).

In addition to providing vouchers for concrete services, CHSH staff sometimes provided housing-related vouchers to help clients obtain and maintain housing placements (these numbers are included in Housing in Table 11). Four Enrolled clients (5%) received financial assistance for housing-related services (e.g., utility payments, rental assistance, rental deposits) during engagement, with an average amount of $677. Nearly half (44%) received financial assistance after enrollment, with an average amount of $1,679 (ranging from $200 to $6,430). No Engaged clients received financial assistance related to housing.

Services provided through Valley Mental Health. During the second year of the project, the CHSH program began billing Medicaid for some of the mental health services clients received (i.e., billable services provided by Valley Mental Health, which is a grant partner). Because three of the project staff was VMH employees, many of those services were provided by CHSH staff, while others were provided by VMH staff not on the CHSH team. Approximately one-fourth of CHSH clients received Medicaid-billable mental health services from VMH. Table 12 documents services paid for by Medicaid, through VMH, during the second and third years of the project.

Table 12 Medicaid-billed Services Provided by VMH

	Year Two	Year Three
Receiving any services: n (%)	18 (22)	21 (26)
Of those:		
Average number of services per client	82	82
Average minutes of service per client	1109	2880
Average cost per client	$7114	$7212
Services by type and average cost: % received (Mn)		

	Year Two	Year Three
Assessment	33 ($331)	67 ($303)
Case management	61 ($1371)	67 ($1472)
Group therapy	33 ($491)	48 ($1462)
Individual therapy	56 ($2190)	67 ($3645)
Pharmacological management	61 ($869)	62 ($1842)
Residential living (day)	22 ($18883)	24 ($6949)
Other	33 ($175)	29 ($383)

[1] Year Two is inclusive of October 1, 2012 through September 30, 2013
[2] Year Three is inclusive of October 1, 2013 through June 14, 2014

The total amount of Medicaid-billed services provided by VMH to CHSH clients in Year Two of the project was $128,057, for a total of 1,476 services and 19,955 minutes of service. The total amount of Medicaid-billed services provided in Year Three was $151,464, for a total of 1,727 services and 60,480 minutes of service. When comparing the two amounts, the reader should keep in mind that Year Three figures only account for 9 months of the year (October, 2013 through June, 2014). Given that the total number of services and amount billed is already greater than Year Two figures, the results indicate that the number of Medicaid-billable services provided to clients increased from Year Two to Year Three. More clients received assessments and individual and group therapy in Year Three compared to Year Two, while a similar number received pharmacological medication management and residential treatment services.

Staff interaction with clients. In addition to discrete services provided, a detailed description of staff interactions with clients, including clients' needs, state of mind, progress, and barriers, was available within Client Track in the form of case notes. In order to analyze this information, the research staff coded notes into the following primary program activities, which correspond to the grant objectives: administrative activities, advocacy, basic needs, benefits, case management, criminal justice, engagement, housing, medical, mental health, outreach, and substance abuse. Table 13 details the qualitative codes used to analyze more than 8,400 case notes created since the inception of the CHSH program.

Table 13 Case Note Codes

Program Activity and Description
Administrative Activities
Activities related to managing and documenting program activities, including: administering assessment forms, documenting discharges, and terminations
Advocacy
Setting up appointments or arranging services for client with other agencies, attending and/or transporting clients to appointments, and any efforts with another agency on behalf of the client
Basic Needs
Activities required to meet basic needs, such as the provision of food or clothing
Benefits
Any activities related to obtaining mainstream benefits, including: establishing eligibility, arranging for assessments, obtaining documents, setting up appointments, filing appeals, and providing training in managing benefits
Case Management

Program Activity and Description
General program activities including: phone contacts, residence visits, weekly check-ins, appointment scheduling and reminders, and activities that do not fit into the other categories.
Criminal Justice
Activities related to clients' encounters with the criminal justice system, including: visiting clients in jail, facilitating community service hours, and advocating for clients in court or with Adult Probation and Parole (AP&P).
Engagement
Assertive outreach, introducing clients to the program, building relationships, assessing clients' eligibility, administering GPRA forms, or other activities related to enrollment
Housing
Activities related to housing, including discussion of options, engagement in the application process, lease signing, moving-in assistance, obtaining furnishings, advocacy with landlords and housing case managers, and ongoing housing maintenance needs
Mental Health
Activities related to mental health needs, including assessment, therapy, prescriptions for medications, crisis support, and referrals
Outreach
Formal and informal attempts to locate clients, including unsuccessful efforts to locate clients
Substance Abuse
Activities related to substance abuse needs, including: assessment, therapy, and referral to Detox

Table 14 characterizes staff interactions with clients, as documented in case notes. Contacts were broken out according to type, including those contacts that occupied staff time, but during which the client was not present or receiving a direct benefit (e.g., writing case notes, trying to get a hold of a client). Because multiple topics were often addressed in a single contact, these percentages do not sum to 100.

Table 14 Total Client Contacts

Total Case Notes = 8,438	
Topic Addressed	% of Case Notes
Advocacy	21
Basic Needs	18
Benefits	13
Case Management[1]	58
Criminal Justice	4
Engagement	5
Medical	12
Mental Health	18
Housing	16
Substance Abuse	6

[1] Case management includes activities related to administrative duties (which comprise 10% of all case management activities) and outreach (which comprise 14% of all case management activities).

When compared to the services table (Table 11), the case notes analysis gives additional detail on the nature of clients' experience in CHSH and the context within which services were provided. For instance, mental health issues were addressed during both formal therapy sessions (as indicated in Table 11) and also in the course of routine interactions between clients and staff. Of the 18% of case notes that were coded as having a mental health component, program activities included: medication management; crisis intervention; working to develop trust and build a therapeutic alliance; motivational interviewing; and unplanned, brief interventions to help clients cope with stressors, some of which originated with program activities such as moving or applying for benefits. Only 20% of clients receive formal substance abuse treatment services from CHSH staff (see Table 11 on page 10); however, substance abuse was addressed during contacts with 61% of Enrolled clients and 18% of Engaged clients (see Table 15). Often, these interactions consisted of helping clients who were resistant to treatment manage the symptoms of substance use (and even arranging admission into detoxification programs).

Table 15 CHSH Contacts by Enrollment Status

	Engaged	Enrolled	
Total Sample (N)	*55*	*82*	
		Engagement	*Enrollment*
Topics addressed in contact: (% of clients)			
Administrative	62	15	90
Advocacy	51	66	96
Basic needs	38	96	96
Benefits assistance	49	78	91
Case management	31	44	99
Criminal justice	16	16	54
Engagement	87	81	27
Housing	27	42	96
Medical	40	39	93
Mental health	42	49	88
Outreach	42	33	82
Substance abuse	18	18	61
Average number of contacts: (Mn (min, max))			
Administrative	2 (1, 6)	2 (1, 10)	5 (1, 19)
Advocacy	3 (1, 8)	4 (1, 27)	19 (1, 98)
Basic Needs	3 (1, 11)	18 (1, 82)	17 (1, 82)
Benefits	2 (1, 8)	4 (1, 12)	11(1, 42)
Case management	6 (1, 26)	5 (1, 31)	36 (1, 153)
Criminal justice	3 (1, 7)	4 (1, 12)	7 (1, 32)
Engagement	4 (1, 28)	4 (1, 24)	1 (1, 3)
Housing	2 (1, 4)	3 (1, 16)	15 (1, 45)
Medical	3 (1, 7)	3 (1, 22)	11 (1, 46)
Mental Health	4 (1, 15)	4 (3)	17 (19)
Outreach	4 (1, 31)	3 (1, 15)	8 (1, 36)
Substance Abuse	3 (1, 11)	2 (1, 8)	9 (1, 42)

Housing-related issues were evident in 16% of client contacts and extended beyond the initial housing placement. Activities coded as housing included: helping clients acquire necessary household items such as cleaning supplies or furniture; helping clients prepare for an inspection;

and facilitating general maintenance needs, including communicating repair needs to the appropriate entity and preparing the client to have an unfamiliar person in their homes to make repairs. CHSH staff assisted clients with making rent payments, resolving overdue bills, and completing paperwork required to maintain housing. Additionally, staff provided ongoing support in the form of helping clients find new apartments—if their unit became unsuitable or they were evicted—find permanent housing options—if the unit was temporary—and applying for new vouchers that allowed for more flexibility in the terms of the lease (such as adding another person to their lease). Staff also assisted in any subsequent moves the client required and in vacating an apartment if the client left unexpectedly.

Table 15 shows the content of case notes by enrollment status. During engagement, the majority of Enrolled clients had at least one contact wherein staff addressed the client's basic needs, engagement with services, and access to mainstream benefits. Basic needs were addressed most frequently, with an average of 18 contacts per client. After enrollment, most clients continued to have contacts related the aforementioned areas, with the exception of engagement. Additionally, the vast majority of clients had contacts related to administrative services, housing, advocacy, case management, medical, and mental health, with an average of more than 15 contacts per client for advocacy, basic needs, case management, and mental health. Of note, staff continued to conduct outreach activities with clients even after they were enrolled in the program. In fact, clients averaged eight outreach contacts after enrollment. This figure suggests that assertive outreach, initiated by staff, remains a central component of maintaining client stability and program involvement even after enrollment.

For Engaged clients, the majority of contacts related to engagement and administrative services. These numbers reflect the composition of the Engaged group, which was largely comprised of clients who were either resistant to services or determined to be ineligible for services.

As noted earlier, case notes indicated that a majority (88%) of Enrolled clients had contacts addressing mental health issues and more than half (61%) had contacts addressing substance abuse issues. The substance abuse clinician on staff was involved in 42% of post-enrollment[3] contacts wherein substance abuse was addressed, while the mental health clinician was involved in 36% of the post-enrollment contacts wherein mental health issues were addressed (not in table). In addition to the full-time clinicians on staff, specialized interventions (e.g., medication management and psychological testing) were provided by two part-time team members, a clinical psychologist and a nurse practitioner. The nurse practitioner was involved in one-fourth (25%) of post-enrollment substance abuse contacts and almost one-third (29%) of post-enrollment mental health contacts. The nurse practitioner worked with 77% of Enrolled clients, averaging ten contacts per client (ranging from 1 to 47 contacts per client, not shown in table). The clinical psychologist worked with 49% of Enrolled clients and averaged five contacts per client (ranging from 1 to 31 contacts per client, not shown in table). The clinical psychologist was involved in ten percent (10%) of post-enrollment mental health contacts.

Engaged clients also received services from the clinical psychologist (20%, with an average of two contacts per client) and the nurse practitioner (27%, with an average of four contacts per client).

[3] As noted earlier (p. 4), *post-enrollment* refers to clients' experiences after formal enrollment and includes both currently enrolled and discharged clients.

Summary. The data demonstrate that CHSH provided a broad range of services in a format that is largely consistent with the ACT model. Clients received services related to case management, housing, mental health, substance abuse, and benefits enrollment, all from the CHSH team. Clients had contact with staff almost twice per week and were maintained in the program indefinitely, as long as staff determined that they continued to benefit from intensive case management services.

Is CHSH Succeeding?

As noted earlier, the primary goals of the CHSH project were to increase clients' resources with respect to mainstream public benefits, housing, and treatment services. Client change in all three areas is discussed in the following section. In addition, client change in other areas (criminal justice involvement, emergency room use, and income) is discussed.

Benefits enrollment. Data from The Road Home Intake forms was used to assess changes in clients' enrollment in public benefit programs. Table 16 presents clients' mainstream benefit status at their initial program contact (prior to enrollment, at the beginning of the engagement phase), at which point less than half of clients were enrolled in any single benefit program. Between that first assessment and Intake (the date of the GPRA assessment), the number of clients enrolled in benefit programs increased for every type of benefit. The majority of clients were enrolled in Medicaid[4] (78%), Social Security Disability Insurance (68%), and food stamps (81%) at some point while they were actively enrolled in CHSH. More than half of clients who were discharged from CHSH were enrolled in Medicaid, SSI/SSDI, and food stamps when they exited the program.

Table 16 Mainstream Benefits by Enrollment Status

	At Engagement Start[1]	At Enrollment Start[2]	During Enrollment[3]	At Discharge[4]
Sample size	65	81	81	29
Benefit Type n (%)				
Medicaid	19 (29)	31 (38)	64 (78)	19 (66)
SSI/SSDI	17 (26)	30 (37)	55 (68)	18 (62)
Food Stamps	28 (43)	52 (64)	66 (81)	19 (66)
General Assistance	3 (5)	16 (20)	27 (33)	2 (7)
Medicare	7 (11)	8 (10)	18 (22)	7 (24)
SSA	1 (2)	2 (2)	4 (5)	2 (7)

[1] For clients with an Intake assessment at engagement in TRH records
[2] For clients with an Intake assessment at enrollment in TRH records
[3] For clients with a Follow-up assessment during enrollment in TRH records
[4] For clients with a Discharge assessment after enrollment in TRH records

General Assistance is a time-limited program, which likely explains the fact that the number of clients who were receiving these benefits was substantially lower at program discharge.

Monthly income. GPRA data was used to further explore changes in clients' access to resources during program enrollment. On the GPRA forms, clients' average monthly income

[4] As of June 30, 2014, 70 clients (85%) had been enrolled in Medicaid at some point during involvement with the CHSH program. Two additional clients had applications in progress. Of the remaining 10 clients who were never enrolled, three were resistant to enrolling in Medicaid and five were denied or ineligible. These five clients all had a primary substance abuse disorder and did not have a mental or physical disorder that was severe enough to qualify them for Medicaid. All five were enrolled into CHSH early in the project, prior to the inclusion of Medicaid eligibility as a criterion for entry into the program.

increased from $522 at Intake to $616 at 6-month and $805 at Final (see Table 17). By far the largest single source of monthly income, at all three time periods, came in the form of disability and retirement payments. Although not necessarily representing the largest source of income, public assistance and disability payments were the most common sources of income for clients at all three time periods. Wages, family support, and non-legal income were not available to the vast majority of clients during any of the three time periods.

Table 17 Income at Intake, Follow-up, and Final

	Intake		6-Month[1]		Final[2]	
Total Sample (N)	*82*		*73*		*41*	
	%	Mn[3]	%	Mn[3]	%	Mn[3]
Monthly Income						
Wages	2	$44	4	$241	7	$691
Public assistance	49	$258	57	$291	44	$217
Retirement	2	$685	7	$718	2	$1277
Disability[4]	34	$717	37	$730	54	$878
Non-legal income	2	$53	1	$40	0	--
Family and/or friends	1	$20	1	$20	2	$50
Other	8	$52	10	$185	0	--
Any Income	**76**	**$522**	**84**	**$616**	**80**	**$805**

[1] The average number of days between the Intake and 6-Month GPRA is 209 (range is 122 to 494).
[2] Final GPRA is either a Discharge GPRA or a Follow-up GPRA (for clients who are still enrolled in the program). Average days between 6-month and Final GPRA is 415 (range is 73 to 781). The final GPRA numbers exclude deceased clients.
[3] Of those clients who reported an income, the average amount.
[4] One individual received $15,000 in Disability back payments during the 30 days prior to completing the Intake GPRA. To avoid inflating the average, this figure was replaced with the mode Disability payment ($698) in these calculations.

Housing. As of June 30, 2014, 78 clients (95%) had been placed in housing (see Table 18). The number of days between program enrollment and first housing placement dropped substantially when comparing clients enrolled in the first year (Mn=81 days) to clients enrolled in year two (Mn=42 days) and year three (Mn=26 days). This likely stems from increased funding to house clients, which became available near the end of the first grant year.

Half of housed clients (49%) moved at least once after their first housing placement. A substantial portion of these moves (47%) were the result of the client abandoning the placement or experiencing problems that would have resulted in eviction without CHSH program intervention. A smaller portion (18%) of placements ended because the client was institutionalized, either in prison (n=1), jail (n=4), or long-term nursing facility (n=2). When clients experienced events that threatened their housing, staff worked to prevent them from becoming homeless again; as such, five of the 23 clients who lost housing due to eviction, incarceration, or abandonment were re-housed immediately, without a period of homelessness (not in table; these figures exclude two clients who were transferred to a nursing care facility without a period of homelessness). Nine clients were eventually re-housed, with an average of three months spent homeless (Mn=86 days; ranging from 26 to 205). Of the remaining nine clients who left their first housing placement, two were still in jail at the time of this report, four moved out of state, two refused services, and one was living with family in another community.

In terms of housing stability, half (50%) of clients were housed over 83% of the possible time they could have been housed post-CHSH[5] enrollment. The minimum percentage of post-CHSH time spent in housing was 12% of post-enrollment days.

Table 18 Housing Placements

Number of clients housed during:	Year 1	Year 2	Year 3	Total
(n)	41	29	8[1]	78
Days from enrollment to 1st placement (Mn)	118	42	26	80
Range (min, max)	(1, 588)	(1, 377)	(1, 81)	(1, 588)
Number of total placements (Mn)	1.5	1.4	1.4	1.4
Clients who moved from 1st placement (n)	20[2]	13[3]	5	38
Left due to:				
Problems with placement[4] (%)	35	62	60	47
Institutionalized[5] (%)	20	8	20	18
Better placement (%)	45	31	20	34
Number of days in 1st placement (Mn)	260	227	117	230
Range (min, max)	(43, 745)	(1, 432)	(24, 158)	(1, 745)

[1] As of June 30, 2014.
[2] This number excludes 4 clients who died while in their first housing placement.
[3] This number excludes 1 client who died while in first housing placement
[4] Includes eviction, pending eviction, and abandoning apartment
[5] Includes jail, prison, psychiatric facility, permanent nursing facility

Housing pre- and post-CHSH. Data from Salt Lake County and City were also analyzed for trends in housing pre- and post-CHSH. Because these sources provided data collected prior to the CHSH program (unlike CHSH records, used in Table 18), county and city data provide a pre- to post-CHSH comparison of housing (the city and county data were combined for analyses that follow). However, these records reflect a different type of housing relative to that obtained from CHSH records. While CHSH records capture any housing (which may or may not be guaranteed with a source of stable, sustainable funding), city and county data reflect a more stable form of housing that is often connected to a housing voucher. This type of housing would be expected to occur relatively less frequently, but provides additional stability. Because they are not reporting the same type of housing, CHSH and county/city records would not be expected to be comparable.

Housing data from the county and city were examined to determine whether more clients were housed in the two-year period following CHSH as compared to the two-year period pre-CHSH, as well as the percentage of time clients were housed in each of the respective periods. Results indicated that clients were housed, according to county or city records, two percent (2%) of the total possible time they could have been housed in the two-year period pre-CHSH. In comparison, according to county or city records, CHSH clients were housed 11% of the time they could have been housed in the two-year period post-CHSH enrollment. Only 5 of 82 clients (6%) had recorded housing pre-CHSH, compared to 20 of 82 clients (24%) post-CHSH. Interestingly, those who were housed by the city or county in the two-year period pre-CHSH were not placed in county or city housing in the two-year period post-CHSH.

Shelter use pre- and post-CHSH. Observing a reduction in the use of shelter services is important to quantifying the success of the CHSH program. Shelter use data were collected from

[5] As noted earlier (p. 4), *post-CHSH* refers to clients' experiences after formal enrollment and includes both currently enrolled and discharged clients.

The Road Home. Pre-CHSH, 76 of the 82 clients (93%) used shelter services; two clients used shelter services post-CHSH only (but not pre-CHSH). In total, 78 of 82 clients (95%) used shelter services at some point. Using their first shelter date as a hinge date for calculating the maximum number of days clients could have spent in a shelter pre-CHSH, analyses indicated clients spent 25% of their possible pre-CHSH time in shelter services, with a median percentage of 14%. The outcome translated to a rate of service use of 90 days per year spent in shelter services pre-CHSH. Post-CHSH, clients used shelter services only 5% of the time on average, with a median of less than 1% (0.9%), and a per year rate of 17 days. Examining the pattern of shelter use in six equivalent six-month time blocks (three, six-month blocks both pre- and post CHSH)[6], analyses revealed a significant decline in the number of shelter days, from 45.8 days (per six-month block [180-days]) pre-CHSH to 13.2 post-CHSH (p=.000)[7].

Health. The following sections report on changes in clients' health-related outcomes. Pre- and post-program differences in receipt of mental health and substance abuse services are analyzed using data from Salt Lake County Behavioral Health. Differences in clients' use of emergency room services are analyzed using data from Fourth Street Clinic. Finally, clients' perceptions of their mental health, including substance use, are reported using GPRA data.

Mental health and substance abuse treatment. Data in Table 19 provide the percentage of clients with certain mental health and substance related diagnoses and a history of mental health or substance abuse treatment before entering the CHSH program (as recorded by, and limited to, Salt Lake County Behavioral Health data). Fifty-seven of the 82 clients participating in this study had contact with Salt Lake Behavioral Health. It should be noted that the absence of a diagnosis or treatment does not imply an absence of need; clients may not have received needed care or assessments, and may also have received services documented outside of the jurisdiction of Salt Lake Behavioral Health.

As seen in Table 19, both mental health and substance abuse treatment histories were prevalent in the CHSH population. The most commonly occurring diagnoses were drug disorders (35%), bipolar

[6] In these data, each person contributed six time periods to the analysis. Some CHSH clients entered the program earlier, and could, therefore, have been followed for a longer period of time post-CHSH start date. To control for differences in the amount of time a person could possibly have been followed, six equivalent time blocks were created using six-month periods (three six-month blocks [18-months total] both pre and post CHSH). For example, variables were created indicating the percentage of shelter use 12-18 months, 6-12 months, or 0-6 months pre CHSH as well as 0-6 months, 6-12 months, or 12-18 months post-CHSH. Linear mixed modeling then compared the percentage of shelter use across these time periods.

This type of model has several advantages over a mere pre-post analysis (e.g., dependent samples t-tests or repeated measures ANOVAs). First, it controls for non-independence of response data, and, second, it can accommodate missing data in the response variable across time periods. Because these models analyze trends (rather than a single point in time as occurs in some longitudinal methods), cases missing a follow-up period beyond the CHSH enrollment were still included in analyses despite the absence of data for the longer follow-up periods. This method, therefore, allows for inclusion of cases that would otherwise be omitted.

[7] Throughout the report, differences that are statistically significant between pre- and post-CHSH are noted in text and tables. A non-significant result indicates that that the outcome has a greater than 1-in-20 (i.e., >.05) likelihood of occurring due to chance and any difference in observed means may be spurious at the 1-in-20 level. A significant result indicates the result would be expected to occur due to chance in less than 1-in-20 trials considering the population data, providing some confidence that the observed difference is meaningful (not spurious). A significant result, therefore, is one that is at or below .05 (1/20), while a non-significant result corresponds to a probability value greater than .05. In tables throughout the report, the absence of a value in any column denoting significance indicates the difference was not significant (i.e., it was greater than .05).

disorder (24%), and alcohol disorders (23%). The prevalence of any Axis II disorder was quite high (23%; this category in Table 19 is inclusive of schizophrenia conditions, as well as psychosis, bipolar disorder, delusional disorder, and the non-schizophrenic personality disorders category, which includes antisocial, borderline, and dependent personality as well as intellectual disabilities). The prevalence of these conditions in the CHSH population is more than twice as high as in the general population (approximately 10%; Sansone & Sansone, 2011). Notable of these conditions are their pervasive, generally life-long nature and the fact that they are often an underlying cause of Axis I symptoms and disorders (e.g., depression and anxiety).

Table 19 also shows a high prevalence of deferred diagnoses. A deferred diagnosis often occurs because a clinician suspects a disorder, but, due to certain limiting factors (such as a lack of sufficient time to evaluate), he or she defers the diagnosis pending further evaluation. This is especially likely to occur in the case of personality and mental disability disorders (Axis II), which are difficult to substantiate during limited intake assessments or other short periods of time; this problem is exacerbated by a highly transient population. These diagnoses are also likely to be deferred when an acute condition (e.g., intoxication) precludes identification of a more chronic diagnosis.

Table 19 Pre-CHSH Behavioral Health Histories

	n	%
Treatment		
Any Mental Health Treatment	31	38
Any Substance Abuse Treatment	42	51
Disorder Diagnoses		
Specific Diagnosis:		
Alcohol	19	23
Drug	29	35
Bipolar	20	24
Delusional	1	1
Psychosis (non-organic origin)	8	10
Anxiety	17	21
Hyperactivity	6	7
Adjustment	7	9
Schizophrenia	18	22
Non-Schizophrenic Personality	17	21
Any Axis II Disorder	19	23
Deferred Diagnosis	42	51

Behavioral health data were next examined to determine whether enrollment in the CHSH program impacted the occurrence (did it occur – yes or no) of certain substance abuse and mental health outcomes. Analyses only included clients with a recorded behavioral health history at some point (n=57), and compared the specified behavioral health outcome in the 18-month time period pre-CHSH to the 18-month time period post-CHSH. Analyses were conducted using generalized mixed models, the results of which can be difficult to understand in raw form. Therefore, the results presented in Table 20 have been simplified for presentation purposes. The actual analytic procedures and outputs are considerably more mathematically complicated; however, essential information is still provided, and interested readers are encouraged to review the relevant analytic

footnotes for additional detail.[8]. Only some outcomes could reasonably be expected to change as a result of the CHSH program and given the study's timeframe. For example, presence of an Axis II disorder (or any disorder) would not be expected to be resolved due to CHSH in the short period of time available to follow participants in the study; therefore, only specific outcomes amenable to short-term change are presented in the pre-post analyses of Table 20.

Several notable and favorable pre- to post-CHSH changes can be observed in Table 20 (p. 22). Participation in the CHSH program was associated with a significantly reduced need for substance abuse treatment (of any kind) in the 18-months post-CHSH (30%) relative to the 18-months pre-CHSH (47%). Receipt of any type of mental health services increased significantly in the 18-months post-CHSH. Because this is the first outcome we have encountered that indicates an increased frequency post-CHSH, it is important to note that an increase on this outcome is favorable. Given that the CHSH population has a high prevalence of mental illness, connecting the clients with services at a greater rate is a favorable achievement, especially in conjunction with also reducing their need for substance abuse related services.

With respect to specific substance abuse related services, there was a notable and significant decrease in the need for both substance abuse assessment and free-standing detoxification services. Free-standing detoxification services are generally provided to individuals suffering from acute symptoms of intoxication due to alcohol or other drugs. Coupled with the finding that clients, post-CHSH, require less substance abuse treatment in general, the finding of a significant reduction in free-standing detoxification suggests that, post-CHSH, clients are generally less likely to abuse substances to the point of requiring detoxification services. Only one mental health outcome was significant pre- to post-CHSH; medication management services increased significantly post-CHSH, suggesting that CHSH clients are both receiving medications at a higher rate, and are likely being monitored more closely with respect to these medications.

[8] Generalized mixed models are an extension of both the general linear model and the generalized linear model. While generalized linear models extend the general linear model to cases in which the outcome is not continuous (i.e., categorical, count data, etc.), the generalized mixed model further extends this to cases with repeated measures or clustered data (i.e., where responses are not independent because, for example, they are from the same person over time).

As before, in order to control for differences in the amount of time a person could possibly have been followed, six equivalent time blocks were created using six-month periods (three six-month blocks [18-months total] both pre and post CHSH). Analyses then compared the frequency of occurrence across these time periods using generalized mixed models, which have the same advantages as linear mixed models described earlier.

Results from this type of analysis are typically output in the form of odds ratios. Odds ratios, and their associated coefficients and confidence intervals are not presented here, however, because they are not necessary to understanding whether a pre- to post-CHSH difference was significant, and a more easily interpretable presentation is provided instead.

These outcomes were examined in GENLINMIXED with the following settings (established using model fit criteria): Binomial distribution, repeat covariance structure for time (six blocks) of AR1, random covariance structure of identity.

Table 20 Differences in Pre-Post CHSH Behavioral Health Histories

Behavioral Health Outcome	% 18 Months Pre-CHSH	% 18 Months Post-CHSH	Sig.
Substance Abuse Treatment (Any)	47	30	.005
Service:			
Assessment	8	0	.024
Outpatient	10	8	
Inpatient	3	0	
Free-Standing Detox	43	22	.000
Mental Health Treatment (Any)	17	32	.003
Service:			
Assessment	11	18	
Therapy	12	16	
Medication Management	10	24	.001
Case Management	9	17	
Inpatient	4	1	
Residential	3	6	

Emergency room use. Emergency room use data was limited relative to other data sources used to examine the efficacy of the CHSH program. Acquisition of emergency room use data required a release of information (ROI) signed by the clients; however, a release was not obtained for a large number of clients, making it impossible to determine whether they used ER services at a greater rate pre- relative to post-CHSH. Of 82 clients, 50 (66%) signed a ROI. Of these, 41 (82%) had recorded ER use.

Because the clients who did not agree to complete an ROI were not a random subpopulation (i.e., clients who agreed to sign the ROI might be qualitatively different from those who agreed), analyses were conducted to compare the group who signed the ROI with those who did not on pre-CHSH outcomes including criminal history, substance abuse and mental health treatment history as well as diagnoses, and shelter use history. The two groups did not differ from one another on these outcomes (because no differences existed, results are not displayed in a table). To a limited degree (given clients could differ on outcomes to which researchers did not have access), ER use outcomes from the subset of clients who signed the ROI *and* used ER services can be speculatively generalized to the group that did not sign the ROI and that *might* have used ER services. However, the high percentage of clients who did not agree to sign the ROI precluded using ER use as a predictor of post-CHSH differences on outcomes modeled in the next section.

Outcomes presented in Table 21 show the pattern of ER use for the subset of CHSH clients who both signed an ROI and had recorded ER use. Analyses examined, in six-month time blocks, both whether a client used the ER (yes/no) pre- or post-CHSH as well as the number of times a person used the ER (if applicable)[9]. The inclusion of a count of times using the ER as an outcome was included due to the frequency of ER use by some clients; it provides a more sensitive metric for examining use patterns than a simple yes or no. Note that ER data provides a slightly longer measurement of pre- and post-CHSH services relative to previously presented outcomes (24 months compared to 18

[9] All outcomes were examined in GENLINMIXED with the following settings (established using model fit criteria). For the dichotomous (yes/no) outcome: Binomial distribution, repeat covariance structure for time (six blocks) of compound symmetry, no random covariance structure. For the count outcome: negative binomial distribution, repeat covariance structure for time (six blocks) of compound symmetry, no random covariance structure.

months for previous outcomes). This occurs because ER data was provided at a considerably later date. Though results were analyzed in six-month blocks, for ease of interpretation, they are presented here only in terms of the predictor (pre- or post-CHSH).

While some clients revealed no use in any particular six-month time period, others revealed extensive use (up to 10 in any single six-month period). Comparing ER use pre- to post-CHSH, one can see in Table 21 that there were no significant differences. ER use analyzed using a yes or no response option indicates that 36% of clients used an ER service in any specific time period pre-CHSH compared to 42% post. The count variable indicated a similar negligible (non-significant) increase in post-CHSH ER use, rising from .79 visits per person pre- to .95 post-CHSH.

Table 21 Differences in Pre-Post CHSH Use of Emergency Rooms

Outcome	Mean/% 24 Months Pre-CHSH	Mean/% 24 Months Post-CHSH	Sig.
ER Use (Yes/No)	36%	42%	
ER Use (Count)	.79	.95	

While not a primary grant objective of the CHSH program, reduction in use of emergency room services was a hypothesized secondary goal. On average, that effect was not observed; however, a closer examination of the data indicated some individuals were visiting the ER at considerably higher rates post-CHSH, while another subset was visiting less (though still visiting). Researchers next investigated characteristics of these subgroups that might have led to a net outcome of no change in ER use despite the fact that some individuals were clearly using the ER less.

Researchers hypothesized that one factor that might impact the rate of ER use beyond CHSH enrollment was a propensity to resist services. No variable existed that assessed this propensity directly, but a proxy variable was available in length of the engagement period that occurred prior to program enrollment. It was hypothesized that a longer engagement period might suggest a greater resistance to services, which might, in turn, moderate the role of CHSH on the rate of ER use. Results of the analysis indicated a significant interaction effect; individuals with longer engagement periods used the ER a greater number of times on average before CHSH when compared to their use after CHSH. Conversely, individuals who had a shorter engagement period used the ER more frequently after CHSH enrollment relative to before CHSH enrollment. The exact meaning of the outcome is ambiguous. To the extent that engagement period was an adequate proxy for resistance to services, it may indicate that CHSH successfully transitioned clients who were particularly resistant to services away from ER use; however, the increase in use among less resistant clients (those who enrolled quickly) is not as readily interpretable.

It is important to note that not all of clients' emergency room contacts were inappropriate (with respect to appropriate level of medical care). In many cases, clients were referred to the emergency room by primary care providers and were actually admitted to the hospital from the emergency room. Given the chronic medical conditions of many clients, some may continue to require this level of service even after enrollment. Given the differential impact on emergency room use, it may be the CHSH program was able to reduce use among clients whose medical needs could be met in another setting.

Criminal justice involvement. The following section analyzes changes in clients' involvement with the criminal justice system, before and after program involvement.

Jail bookings. Data from the Offender Management System (OMS) were used to examine criminal histories (including new charge bookings, warrants, holds and commitments) among CHSH clients. These data are limited to data collected in the Salt Lake County Jail and exclude histories occurring in other jurisdictions as well as histories occurring prior to adoption of the OMS database in 2009. Sixty of the 82 CHSH clients (73%) participating in the current study had criminal histories in OMS. Table 22 shows the OMS histories pre-CHSH; in order to provide the reader with a sense of the prevalence of criminal outcomes in the CHSH population in general, percentages are presented in Table 22 out of the total for the study (N=82) rather than only those with criminal history outcomes (as is done in Table 23).

Eight of the 60 clients with histories in OMS had no new charge bookings in their histories (pre- or post-CHSH); however, they did have bookings on warrants, holds, and/or commitments (not shown in table). These individuals may have transferred from another jail, been booked for non-compliance on a case for which they were not initially booked into the jail (e.g., for an open container), or been booked for non-compliance on an older cases where the initial booking occurred prior to 2009. Six clients had no pre-CHSH OMS history, but were booked into the jail on a new charge, warrant, hold, or commitment following CHSH enrollment. Thus, 46 CHSH clients had a new charge booking pre-CHSH (see Table 22).

With respect to the severity of the most severe/highest charge pre-CHSH (rank order of charge severity is shown in ascending order in Table 22), among those who had a new charge booking, most were class B Misdemeanors, although nearly one-fourth of the population had a felony charge in OMS. Nearly one-fourth of CHSH clients had a person charge[10], nearly one-third had a property charge[11], and one-fifth had a drug charge[12]. One-third of the population also had a public order charge[13]. Open container and public intoxication charges, which are a subset of public order charges, were particularly common in the CHSH population. Public intoxication charges occurred among nearly one-fourth of all CHSH clients.

Table 22 Pre-CHSH OMS Histories

Event	n	%
Any New Charge Booking	46	56
Highest Charge Degree		
None	*36*	*44*
Misdemeanor C	*2*	*2*
Misdemeanor B	*19*	*23*
Misdemeanor A	*5*	*6*
Felony III	*10*	*12*
Felony II	*9*	*11*
Felony I	*1*	*1*

[10] Examples include battery, assault, domestic violence, child abuse, assaulting an officer, stalking, robbery, homicide, sexual abuse, and rape.

[11] Examples include trespassing, theft, destruction of property, and fraud.

[12] Examples include possession, distribution and manufacturing of controlled substances.

[13] Examples include public intoxication, open container, disturbing the peace, disorderly conduct, public urination, and abuse of emergency services.

Event	n	%
Person Charge	19	23
Property Charge	26	32
Drug Charge	15	18
Public Order	27	33
Open Container	*12*	*15*
Public Intoxication	*20*	*24*

OMS data were next examined to determine whether enrollment in the CHSH program impacted the occurrence (did a crime occur – yes or no) of criminal outcomes. Analyses only included clients with a criminal history at some point (n=60) and compared the specified criminal history outcome in the 18-month time period pre-CHSH to the 18-month time period post-CHSH. Most clients had a follow-up of 18-months post-CHSH available; limiting the pre-CHSH time period to 18-months was necessary to create equivalent comparisons between pre- and post-CHSH events; analyses were again conducted using generalized mixed models.

Table 23 shows several significant differences on pre- and post-CHSH outcomes. The average number of days in jail in the 18 months post-CHSH (11) was significantly less than pre-CHSH (17). Clients were significantly less likely to have a new charge for which they were booked into the jail post-CHSH (20%) relative to pre-CHSH (34%). The outcome indicating the highest degree with which they were charged (if applicable) was coded such that a value of 0 indicates no new charge, and values of 1 through 6 corresponds to Class C, B and A misdemeanors, and third, second and first degree felonies, respectively (i.e., ordered least to most severe). The charge with the highest associated degree was of a significantly lower degree on average post-CHSH (0.58) relative to pre-CHSH (0.88). The fact that the average value is below one indicates that most clients had no charges, and those who did tended to have less severe charges on average (see Table 23). Clients also had significantly fewer jail bookings for warrants and had significantly fewer public order charges post-CHSH. While other outcomes were not significant, the patterns are in a favorable direction, showing decreases in criminal activity in general post-CHSH.

Table 23 Differences in Pre-Post CHSH OMS Criminal Histories

Criminal Outcome	Mean/% 18 Months Pre-CHSH	Mean/% 18 Months Post-CHSH	Sig.
Days in Jail[14]	17	11	.000
Highest Charge Degree[15]	0.88	0.58	.046
New Charge Booking[16]	34%	20%	.014

[14] The outcome days in jail was examined in GENLINMIXED with the following settings (established using model fit criteria): Negative binomial distribution, repeat covariance structure for time (six blocks) of AR1, random covariance structure of identity (to account for clustering within person), offset variable natural log of days the person was followed in each six-month block (to account for the fact that some clients were not followed for an entire time block).

[15] The outcome highest charge degree was examined using a slightly different methodology because of a software limitation. The analysis was conducted using a generalized estimating equation (GEE) for ordinal regression with the following settings: Multinominal distribution (ordinal) with a cumulative logit link.

[16] The outcomes for all charge types (i.e., new charge bookings, warrants, person, property, drug, and public order charges [including subtypes]) were examined in GENLINMIXED with the following settings (established using model fit criteria): Binomial distribution, repeat covariance structure for time (six blocks) of AR1, random covariance structure of identity (to account for clustering within person), covariate of days in jail (It is important to account for time out of the community because incapacitation largely prevents additional crimes from occurring, but is also

Criminal Outcome	Mean/% 18 Months Pre-CHSH	Mean/% 18 Months Post-CHSH	Sig.
Person Charge	4%	4%	
Property Charge	14%	10%	
Drug Charge	7%	6%	
Public Order Charge	19%	12%	.044
Open Container	8%	4%	
Public Intoxication	16%	9%	
Warrant Booking	38%	21%	.014

Court Cases. XChange/CORIS data was used to analyze changes in clients' involvement in Utah Justice and District Courts pre- to post-CHSH. Because court involvement is not as reliable indicator of client behavior as jail booking data (i.e., many factors influence whether, and when, a client is charged with a crime after an arrest), only jail data is used in the predictive models in the following section. Data presented regarding court involvement was not analyzed using statistical testing and is presented for comparison purposes only.

A majority of clients (87%) had at least one court case filed during the two years prior to program enrollment and more than three-quarters (79%) had at least one case open[17] with the court at the time they enrolled in the CHSH program (see Table 24 on p. 27). Clients had an average of 12 court cases filed during the two years prior to intake and 5 cases still open when they started the program. Just over half (56%) of clients had any cases filed post-CHSH program (Mn = 6 cases filed post-CHSH). In total, clients had 881 cases filed pre-CHSH and 298 cases that were filed post-CHSH. At the point of enrollment into CHSH, clients had a total of 340 cases that were still open with the Court. Nearly all cases were filed in Justice Court (pre, 91%; open at intake, 87%; post, 89%) and most cases were for low-level offenses (i.e., misdemeanors and infractions). When making pre- and post- comparisons, it is important to keep in mind that these time periods are not equivalent and although the average post follow-up period was 669 days (see footnote 3 in Table 24), actual time periods ranged from 75 to 880 days (not shown in table).

related to their occurrence [i.e., a crime occurring during a time period likely predicts incapacitation during that time period]).

[17] A case is considered "open" if it has not yet been closed with the court. This could include cases that have not yet been disposed and/or sentenced, as well as those that have been sentenced but that include additional conditions (e.g., probation, drug court, plea in abeyance) or court orders (e.g., fines, restitution) than must be fulfilled before the case can be closed with the court.

Table 24 Criminal Justice Involvement – Court Cases[1]

Total Sample (N)	*82*		
Court Cases filed in Utah District or Justice Courts	Filed 2 Yr Pre	Open at Intake[2]	Filed Post Intake[3]
Percent with at least one case (%)	87	79	56
Of those with case(s) filed:			
Total # of cases – for entire sample (sum)	881	340	298
Min, Max	1, 67	1, 25	1, 35
Average number of cases (Mn (SD))	12 (14)	5 (5)	6 (8)
Jurisdiction (%)			
Justice Court	91	87	89
District Court	9	13	11
Case Level (n (%))			
Felony	21 (2)	12 (4)	22 (7)
Misdemeanor	531 (60)	177 (52)	192 (64)
Financial[4]	30 (3)	30 (9)	9 (3)
Infraction	248 (28)	101 (30)	66 (22)
Other[5]	51 (6)	20 (6)	9 (3)

[1] Court cases records search through 6/30/2014
[2] Includes all criminal court cases that were open during the study period (2 years prior to program intake and after intake) which will include a subset of the cases included in the cases filed 2 years prior to intake.
[3] Follow-up period varies depending on program intake date (Mn = 669 days, SD = 213)
[4] Financial includes: Child Support Lien, Tax Lien, Debt Collection, Small Claims, Abstract of Judgment - Financial, and Hospital Lien cases
[5] Other includes: Traffic, Eviction, and Protective Order cases

Summary. Compared to pre-CHSH histories, clients had more days housed, less shelter use, less need for substance abuse detoxification services, increased mental health treatment, and less criminal justice involvement after CHSH enrollment. While use of ER services did not change for the group as a whole, a sub-set of clients demonstrated significantly lower rates of ER use after CHSH. Finally, CHSH clients had higher relative incomes, and more were enrolled in public benefit programs, after CHSH enrollment.

Who Has the Best Outcomes in CHSH?

Having established several notable differences in outcomes (e.g., criminal activity, substance abuse and mental health treatment, shelter days used and housing) associated with CHSH participation, analyses next sought to determine who, among CHSH clients, are more likely to have these positive outcomes. Values in Table 25, on page 29, show a number of outcome variables relevant to CHSH program success in columns, while rows provide several variables considered in models as predictors of the outcomes. For reasons mentioned above, benefits enrollment, ER use, and court data are not included either as a predictor or an outcome in these models. By examining the pattern of significant predictors, one can elucidate some of the factors that determine the outcomes relevant to CHSH success. Only certain, available predictors of CHSH success were examined and are presented in the table; the list is not intended to be an exhaustive account of factors that might relate to success in CHSH. All predictors considered are variables that are static (e.g., gender[18]) or that were defined pre-CHSH (e.g., pre-CHSH crime histories), so that the reader can examine clients

[18] Although gender is not technically static, none of the individuals in the CHSH program transitioned genders during the study; the variable is, therefore, treated as static (rather than time-varying) for analytic purposes.

with whom the program is particularly effective, or, conversely, clients for whom special efforts might be needed in order to observe greater benefits. All outcomes in the table are post-CHSH.

For simplicity, values in the table indicate either non-significant effects (denoted by a blank column) or provide a p-value for the significance. In contrast with common statistical practice, marginally significant effects (values where p is greater than .05 but less than .10) are noted along with significant effects. This provides a less stringent criterion by which to evaluate significance, and results that are marginally significant should be interpreted with relatively greater caution. They are presented here because of the small sample size available for these multivariate analyses[19]. Note that p-values do not inform regarding the direction of an effect; rather, they only denote that a difference exists (within a certain probability). The direction of the effects is provided in the text that follows.

The reader should note that some categories in the table (e.g., co-occurring disorder) have subcategories beneath them. The nature of the statistical tests with categorical predictors dictates that one category must serve as a reference category against which the others are compared. For the co-occurring disorder outcome, the reference category is "yes" (i.e., they had a co-occurring mental health and substance abuse disorder). Probabilities, therefore, indicate the likelihood that the "unknown/not screened" category and the "no" category differ from the "yes" category. Similar logic can be applied to highest charge degree, where the reference category is no prior charges.

The predictor variables are defined as follows:

- Gender: male or female
- Highest charge degree pre-CHSH: the highest degree of the most severe charge the person had prior to starting CHSH (categorized as no prior crime, class B or C misdemeanor, or class A misdemeanors or higher [first, second, and third degree felonies])
- Co-occurring disorder: was the person assessed on GPRA forms as having a co-occurring mental health and substance abuse disorder (categorized as yes, no, or missing/not screened)
- MH treatment pre: indicator of whether the person received documented mental health treatment prior to CHSH enrollment
- SA treatment pre: indicator of whether the person received documented substance abuse treatment prior to CHSH enrollment
- Age: current age in years
- Percent days in shelter pre: the percentage of days the person was in a shelter pre-CHSH given the maximum possible number of days he or she could have been in a shelter
- Days engaged: the number of days the person was in engagement prior to formal program enrollment. This serves as a proxy for resistance to services, with more days in engagement interpreted as greater resistance.

New charge. The new charge variable indicates whether a client received a new criminal charge of any type in the period following enrollment in the CHSH program. Two notable predictors

[19] Analyses used to populate Table 25 include logistic regression for binary outcomes, ordinal regression for new charge degree, and linear regression for the two normally distributed percent of days housed and in shelters variables.

of new charges post CHSH enrollment were found. Individuals who had substance abuse treatment pre-CHSH were marginally more likely to have a new crime charge post-CHSH. Individuals who spent more days in a shelter pre-CHSH were significantly less likely to have a new crime charge post-CHSH. Interestingly, criminal history pre-CHSH (as indicated by highest crime severity) was not a significant predictor of post-CHSH criminal charges.

New charge degree. The new charge degree variable indicates the re-categorized severity of the most severe crime with which a CHSH client was charged post-CHSH enrollment. Three significant predictors of new charge severity (degree) were identified. Having had substance abuse treatment pre-CHSH was associated with significantly greater crime severity post-CHSH. Increases in the age of clients and the number of days engaged were both associated with significant decreases in the severity of crime post-CHSH (which could include no crime).

New substance abuse treatment. Two notable predictors of post-CHSH substance abuse treatment were identified. Having had substance abuse treatment pre-CHSH was significantly predictive of post-CHSH substance abuse treatment. This outcome can be interpreted favorably when considered in conjunction with outcomes from Table 20 above, which indicated a general decline in substance abuse treatment post-CHSH. The outcome here may indicate that those in particular need of substance abuse treatment were accessing it at a greater rate post-CHSH. A marginally significant effect for pre-CHSH crime severity indicated that, compared to clients with no pre-CHSH criminal history, clients with moderate pre-CHSH crime severity (class B or C misdemeanors) were more likely to have post-CHSH substance abuse treatment compared to those with no criminal history. This outcome makes logical sense when one considers that many of the crimes in this category are substance abuse related, including public intoxication and possession of an open container.

New mental health treatment. Several predictors of post-CHSH mental health treatment were identified. Females were significantly more likely to receive mental health services post-CHSH than were males. Individuals with moderate pre-CHSH criminal histories (class B or C misdemeanors), and individuals with more severe criminal histories (class A misdemeanors or above) were significantly and marginally (respectively) more likely to have post-CHSH mental health treatment compared to those with no criminal history. Interestingly, those who were not screened for a co-occurring disorder pre-CHSH were significantly more likely to have post-CHSH mental health treatment than those who were identified as having a co-occurring disorder pre-CHSH enrollment. Age was significantly and negatively related to post-CHSH mental health treatment; older individuals were significantly less likely to receive post-CHSH mental health treatment.

Mental health, specific services. Another mental health variable addressing more specific mental health services was also examined. The category "Mental Health Long-Term Services" was examined separately from mental health services in general (the previous variable) in order to determine whether CHSH clients were getting services that extended beyond relatively brief assessments. Long-term services would be expected to more appropriately address the unique mental health needs of the CHSH population. These specific services included medication management, therapy, psychological rehabilitation, inpatient, or residential services. Outcomes for this variable are similar to the previously discussed mental health variable because they are not independent; services within this category are a subset of the more general mental health treatment variable.

Females were significantly more likely to receive long-term mental health services post-CHSH than were males. Individuals with moderate pre-CHSH criminal histories (class B or C misdemeanors), and individuals with more severe criminal histories (class A misdemeanors or above) were significantly and marginally (respectively) more likely to have post-CHSH, long-term mental health treatment compared to those with no criminal history. Age was significantly and negatively related to post-CHSH, long-term mental health treatment; older individuals were significantly less likely to receive post-CHSH, long-term mental health treatment.

The similarity of these outcomes to the general mental health variable indicates that, generally speaking, the post-CHSH mental health services are typically longer-term services. An increase in these services is a favorable outcome, as it indicates CHSH is helping clients achieve long-term care they previously lacked (established in Table 20), and that a particular need may exist for women, and individuals with moderate to severe criminal histories.

Percent of days housed. Only one variable was a predictor of the percentage of days housed post-CHSH enrollment. Days engaged was a marginally significant predictor of the outcome; the longer the client was engaged, the greater the percentage of days he or she was subsequently housed post-CHSH start date. Failure to identify significant predictors of this outcome is not indicative of a lack of efficacy for the CHSH program; indeed, it suggests that the program is housing individuals with a myriad of backgrounds in terms of gender, criminality, treatment history, age and prior shelter use.

Percent of days in shelter. Only one variable was a predictor of the percentage of days clients spent in a shelter post-CHSH. Individuals who did not receive substance abuse treatment pre-CHSH spent a marginally greater percentage of days post-CHSH start in a shelter. It should be noted, however, that shelter use in general was infrequent post-CHSH, with clients who had been treated for substance abuse pre-CHSH spending, on average, 3% of their post-CHSH time in a shelter compared with 6% for those with no pre-CHSH substance abuse treatment.

Synthesis. Examining the outcomes in Table 25, one can see that determining with whom CHSH is most effective depends greatly on how one defines that success. The lack of a significant association between pre-CHSH criminal history and post-CHSH criminal activity suggests a favorable impact wherein CHSH may attenuate proclivity toward criminal behavior. Individuals with greater shelter use pre-CHSH, and those who do not have a history of substance abuse treatment, are more likely to avoid criminal behavior in the future. This suggests that something unique may exist in the population of individuals who are less likely to use the shelter and who have substance abuse treatment problems that make them more likely to commit future crimes; identifying how CHSH might further aid these individuals in an effort to prevent recidivism is a valuable future consideration. Individuals with prior substance abuse treatment are also the group most likely to require future substance abuse treatment. Coupled with findings of higher crime in this group, special efforts may be needed to assist this subpopulation of clients.

Age also has an interesting relationship with CHSH relevant outcomes. Older individuals are less likely to commit crimes of greater severity post-CHSH, and they are less likely to receive mental health treatment overall as well as specific long-term mental health services. It is not clear from these data whether older individuals represent a lower risk/need group or are merely more resistant to mental health treatment. Some evidence does suggest support for the former conclusion. An analysis of the presence of an Axis II DSM diagnosis indicated they were slightly more prevalent among younger rather than older individuals. Tentatively, this may support a

conclusion that older CHSH clients are slightly lower risk on outcomes related to criminal justice involvement and mental health.

Another interesting relationship exists between criminal history and mental health treatment post-CHSH (both any and long-term mental health treatment). Criminal history, while not predictive of new criminal behavior, was predictive of post-CHSH start mental health treatment. This too suggests a tentative hypothesis that perhaps some pre-CHSH criminal behavior was related to unidentified mental health needs (note that identified, or pre-CHSH, mental health treatment was not predictive of post-CHSH mental health treatment, suggesting that some factor other than pre-existing conditions was driving the need for treatment observed post-CHSH start).

Table 25 Pre CHSH Predictors of Better Outcomes Post CHSH (N=82)

Predictor	New Charge	New Charge Degree	New Substance Abuse Treatment	New Mental Health Treatment	Mental Health Long-Term Services[1]	Percent Days Housed	Percent Days Shelter
Gender				.015	.020		
Highest Charge Degree Pre (None)							
Class B or C			.055	.009	.041		
Class A, Felony 1,2,3				.094	.063		
Co-Occurring Disorder (Yes)							
Unknown/Not Screened				.003			
No							
MH Treatment Pre							
SA Treatment Pre	.065	.011	.000				.096
Age		.026		.003	.025		
Percent Days in Shelter Pre	.033	.021					
Days Engaged						.093	

[1] Services in this category include longer-term services: medication management, therapy, psychological rehabilitation, inpatient or residential services

What Barriers Exist for CHSH Clients?

Program case notes, wherein staff document clients' progress, and lack thereof, were examined to shed light on barriers that clients commonly experience while enrolled in CHSH.

Barriers to service delivery. Given the target population for this grant, one would expect staff to encounter substantial barriers when working to obtain housing, income, benefits, and treatment services for clients. While factors such as substance abuse, mental health, resistance to services, and criminal history make it harder to achieve grant objectives, those barriers are also an omnipresent concern with the current population. In order to better understand the role that these barriers played during the course of service delivery, however, the research team requested that staff track those circumstances and events that specifically prevented them from being able to provide an intended service on a given day. Staff began tracking this information on September, 1, 2013. Of the 3,096 notes recorded since that date, 11% indicated that some barrier was

encountered that prevented staff from providing an intended service or completing a specific task on that day.

For Enrolled clients, the most commonly identified barrier during the engagement phase was clients' inability to engage in the service, due to symptoms or impacts of substance abuse, mental health diagnoses, or cognitive impairment (70% of notes where a barrier was indicated; see Table 26). Common examples of this type of "inability" include: experiencing mental health symptoms (e.g., delusions or hallucinations) to the degree that clients could not participate in services; being intoxicated on a given day, such that clients were unable to engage in services and/or complete necessary tasks; and difficulty comprehending, or remembering, information and tasks related to progress in program goals.

After enrollment, client resistance to services was the most commonly identified barrier (54% of notes where a barrier was identified). While resistance, like ability, was often related to mental health and substance abuse diagnoses, it differed from ability in that clients were refusing to participate in services (rather than participating in services, but being unable to comprehend or complete tasks and follow-up). Resistance included refusing to accept some services (such as substance abuse treatment or mental health medication) as well as avoiding contact with program staff (not answering the door, returning phone calls, or showing up for appointments). In 31% of notes where a barrier was indicated, the client could not be located.

Table 26 Barriers to Service Delivery

	Engaged	Enrolled	
		Engagement	*Enrollment*
Number of contacts (n):	129	153	2814
Barrier (% of contacts)	%	%	%
Any Barrier	26	7	11
Of those, barriers related to (%)[1]			
Ability	21	70	29
Criminal Justice	15	30	5
Resistance	76	30	54
Locate[2]	32	20	31
Other	9	10	21

[1] Notes could be coded with more than one barrier per contact, so totals do not sum to 100.
[2] Inability to locate clients is included with other forms of resistance and separately. The percentage is calculated out of those contacts wherein resistance to service was noted.

When looking only at Engaged clients, staff identified barriers to service provision in a larger percentage (26%) of case notes and noted client resistance in three-fourths (76%) of notes where a barrier was identified.

Barriers to housing stability. As noted earlier, approximately half of CHSH clients moved from their first housing placement. Often, this move was initiated by staff because the client was in jeopardy of being evicted. Case notes document that some clients continued to engage in "street behaviors" even after being housed. Examples of this include clients inviting, or allowing, a large number of visitors to congregate, or even illegally reside, at their apartment. In some instances, clients were unable or unwilling to maintain appropriate cleanliness of their housing unit and some engaged in hoarding behaviors, to the point that landlords and project-based case managers worried about the health and safety of the clients and their neighbors. A minority of clients conducted illegal activities—such as drug use, drug selling, or prostitution—out of their

apartments. In many cases, ongoing engagement in any one of these behaviors led to conflicts with neighbors and landlords.

In some cases, the end of a housing placement was precipitated by clients' expressed desire to move in order to: live in a safer neighborhood or a nicer apartment; get away from undesirable neighbors or acquaintances; pay less in monthly rent; and be able to have roommates or pets. When possible, case managers worked to accommodate clients' housing preferences; however, even with increased income, most clients' housing options were limited by available financial resources.

Barriers to Medicaid enrollment. Difficulty enrolling clients in Medicaid stemmed from a combination of issues, as noted in previous reports. In part, program staff and partners overestimated the number of homeless individuals in the community who were eligible for Medicaid but not already enrolled. After the program's inception, CHSH staff found that a larger-than-expected portion of the chronically homeless individuals in the community were already enrolled (as noted on p. 16, nearly one-fourth (23%) of clients were already enrolled in Medicaid at Intake). Case notes indicate that there was a lot of work done by staff to make sure clients maintained those benefits, but such activities did not comprise new enrollments.

Staff identified client resistance as another barrier to Medicaid enrollment; three of the 12 clients who were never enrolled in Medicaid refused to apply, despite staff belief that they would have been eligible. For some clients, this resistance stems from the costs they would incur—for medications, deductibles, or spend-down—while they are currently receiving medical services at no cost through Fourth Street Clinic. Additionally, clients who lack insight into mental illness and substance abuse may not perceive a benefit to enrollment because they do not feel that they need mental health, substance abuse, or medical care.

Five of the clients who were never enrolled in Medicaid were denied or ineligible due to the lack of a qualifying disability. All of these clients had a primary substance use disorder, which was severe enough to be debilitating; regardless of severity, however, substance abuse disorders do not constitute a qualifying disability under current state Medicaid eligibility guidelines. Finding medical insurance for chronically homeless persons with primary substance use disorders may become easier if the State of Utah decides to participate in the Medicaid expansion. If the state does participate, the majority of CHSH clients would be eligible under income rules and the disability ruling will become less of a barrier to enrollment and access to services.

Discussion

Project Goals

Targeted outreach. The CHSH program exceeded its three-year goal of providing targeted outreach services to 90 chronically homeless persons. As of June 30, 2014, the program had made contact with 137 individuals and fully enrolled 82 clients.

Enrollment in mainstream benefits. The three-year goal for the grant was to enroll 100 clients in Medicaid. As of June 30, 2014, 70 clients (85%) were enrolled in Medicaid at some point during involvement with CHSH. In addition, 58 clients (71%) were enrolled in SSI and 70 (86%) in food stamps.

Housing. As of June 30, 2014, the CHSH program had housed 78 clients and was well on its way to meeting grant goals related to housing clients (grant goal was to house 80 clients in 3 years).

Provision of recovery services. The three-year goal for the grant was to provide recovery services to 90 clients. As of June 30, 2014, project staff had provided formal mental health or substance abuse services to 93 clients (74 Enrolled and 19 Engaged). Among Enrolled clients, 74 received counseling from CHSH staff to address mental health issues and 16 received substance abuse treatment from CHSH staff. In addition to providing formal services, staff addressed mental health and substance abuse issues in routine contacts with clients: 72 Enrolled clients received this type of mental health service and 50 received this type of substance abuse treatment.

Conclusion

Over the past three years, CHSH successfully implemented a modified assertive community treatment (ACT) team to engage chronically homeless persons with co-occurring disorders in housing and treatment. As a team, staff provided a range of long-term, intensive services to clients. The interdisciplinary, and interagency, structure of the program meant that clients had access to a host of individualized services and also developed relationships with staff from multiple agencies.

This modified ACT team, in combination with a Housing First philosophy, was successful in achieving its primary objectives. Prior to program involvement, CHSH clients demonstrated a lengthy history of homelessness, high shelter use, and relatively little access to city and county housing placements. Of the 78 clients who had been housed as of June 30, 2014, the majority (77%) have not been homeless since. This is remarkable, especially given that clients encountered ongoing issues with respect to resources, mental health, and substance abuse, many of which could have threatened their housing placements. While such circumstances may have resulted in evictions in the past, CHSH staff was able to work with clients and landlords and, in many cases, successfully maintain the placement or re-house clients without a period of homelessness. A portion of clients (22% of housed clients) did so well in the program that they were successfully discharged, while still housed, to a lower level of case management.

Although the program was not able to meet its goals with respect to Medicaid enrollment, substantially more CHSH clients were receiving a range of public benefits after enrollment. More than three-quarters (85%) were open in Medicaid during enrollment and nearly that number (68%) were receiving disability payments. In addition to increasing their overall income, program staff assisted clients in accessing necessary resources, including: rent and utility assistance; furniture and household items; food; and medication. The ongoing nature of the CHSH program is particularly important given the relative social isolation of its clients. Results here confirm previous research suggesting that chronically homeless persons with co-occurring disorders often have small social networks with weak ties to family and friends; as such, increased relationships with professional networks are an important part of how clients meet their needs.

Intake data indicated that CHSH clients had a host of physical, mental, and substance abuse disorders; many were not receiving treatment for those conditions. After program enrollment, the vast majority of clients had received mental health treatment services from program staff. In addition, clients were receiving significantly more services related to pharmacological medication to treat mental illness. While comparatively fewer clients received substance abuse treatment, participation in this type of services is explicitly not a condition of program enrollment. As such, case notes indicated that staff often worked with clients to manage the impact of substance abuse even when clients were resistant to participating in treatment. The success of those interventions may be evident in the fact that clients spent significantly fewer days in free standing detoxification centers after program enrollment, suggesting less need for this type of service.

Data from the Salt Lake County Division of Behavioral Health, which is the local mental health authority for Salt Lake County, showed that less than ten percent of CHSH clients received therapy to treat a mental health disorder in the 18 months prior to program enrollment. Interestingly, there was no difference in clients' post-CHSH receipt of publicly-funded outpatient and inpatient therapy (though there was a significant increase in the number of clients who were receiving medication management). Given that the majority of clients were enrolled in Medicaid at some point, this indicates that clients were not accessing traditional mental health therapies even when they had the resources to do so. Instead, nearly all clients (90%) received these services from the CHSH team, provided in their homes. Similarly, less than ten percent of clients received inpatient or outpatient treatment for substance abuse (excluding free standing detox centers) in the 18 months prior to enrollment. While there was no change in the number of clients receiving such services through Salt Lake County after enrollment, one-fifth of clients (20%) were receiving substance abuse treatment in their home from CHSH. These figures appear to support the need for alternative service delivery models—such as providing therapy in clients' homes—when working with this group of service-resistant clients.

While decreasing contact with criminal justice and emergency medical systems was not a primary goal of the program, research shows that ACT teams can be a cost effective way to divert homeless and mentally ill persons from those systems. Participation in CHSH was associated with significantly less contact with the criminal justice system. In addition, participation in CHSH was associated with less emergency room use for a sub-sample of clients. While a portion of clients continued to have frequent contact with emergency rooms, those contacts were not necessarily inappropriate. In many cases, clients were referred to the emergency room by primary care providers and were actually admitted to the hospital from the emergency room. In combination, those results suggest that the CHSH program was successful at reducing inappropriate emergency room use. Given the chronic medical conditions of many clients, however, a portion of clients continued to require these services.

Perhaps the primary success of the CHSH program is the fact that community partners have worked to find resources to sustain the program after the SAMHSA grant ends. This display of financial support is evidence of the impact that homeless service providers have felt from the CHSH program.

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APPENDIX A

GPRA outcomes, using data from Intake, 6-month, and Final interviews, are presented in the following tables.

Living Situation

At Intake, the majority of clients had been living in a shelter (51%) or on the street (22%; Table A-1). At the 6-month interview, only 4% of clients reported living primarily in a shelter and ten percent reported living primarily on the street. Almost one-fifth (18%) of clients indicated that they were housed at Intake; however, those arrangements consisted of residential treatment centers, halfway houses, and friends' and family members' homes. In contrast, in the 6-month interviews, three-quarters (75%) of clients reported being housed for the preceding 30 days; 98% of those clients were living in their own house. At the Final GPRA, 85% of clients had been housed for the preceding 30 days, the vast majority in their own apartment (94%).

Table A-1 Living Situation

	Intake	6-Month[1]	Final[2]
Total Sample (N)	*82*	*73*	*41*
Living Situation			
Primary living situation during the past 30 days: (%)			
Shelter	51	4	2
Street/Outdoors	22	10	2
Institution	7	10	10
Housed	18	75	85
If housed, what type of housing: (%)			
Own/Rent apartment, room, or house	27[3]	96	94
Someone else's apartment, room, or house	40	2	3
Halfway house	7	0	0
Residential treatment	13	0	0
Other	13	0	3

[1] As of June 30, 2014, 73 clients had completed 6-month follow-up GPRAs. The average number of days between the Intake and 6-Month GPRA is 209 (range is 122 to 494).

[2] Final GPRA is either a Discharge GPRA or a Follow-up GPRA (for clients who are still enrolled in the program). Average days between 6-month and Final GPRA is 415 (range is 73 to 781). The final GPRA numbers exclude deceased clients.

[3] Percent based on sample of 15 clients who indicated that they were housed at the time of the Intake GPRA.

Social Connectedness

Less than half (43%) of clients attended a self-help recovery group at least once in the 30 days prior to Intake (not shown in table). The percent of clients accessing self-help groups decreased between Intake and 6-months (29%) and again between Intake and Final (22%). This decrease may stem from the fact that, after enrollment, many clients were receiving regular services from the CHSH program in their homes and were therefore felt less need for other types of support. This interpretation is supported by the fact that, between Intake and Final, more clients identified professional staff (CHSH staff as well as those from partner agencies) as the person they turned to when they were having trouble (Table A-2). With respect to other individuals they turned to when having trouble, clients' reports were inconsistent across timeframes (for both family and friends, clients' endorsement of them as a support person increases and subsequently decreases), perhaps suggesting those relationships are not a stable source of support. Across all three interviews,

approximately half of clients noted that they had recently interacted with family and/or friends that were supportive of their recovery (see Table A-2).

Previous research on the use of ACT teams with homeless persons who were mentally ill showed similar results to the CHSH client outcomes: clients' network of professional supports increased but there was no change in natural support systems (Caslyn, 1998).

Table A-2 Support System at Intake and Follow-up

	Intake	6-Month[1]	Final[2]
Total Sample (N)	*82*	*73*	*41*
During the past 30 days:			
Attended any voluntary self-help groups (e.g., AA, NA) (%)	27	16	10
# of times attended (Mn)	11	4	4
Min, Max	1, 40	1, 12	3, 5
Attended any religious/faith affiliated recovery self-help groups (%)	16	8	10
# of times attended (Mn)	7	2	3
Min, Max	1, 30	1, 4	1, 4
Attended any other meetings that support recovery (%)	18	11	5
# of times attended (Mn)	8	5	13
Min, Max	1, 30	1, 15	1, 24
Had interaction with family/friends supportive of recovery (%)	51	55	51
Person they turn to when having trouble: (%)			
No one	44	37	43
Family Member	13	22	15
Friends	13	18	10
Professional	21	19	29
Clergy	4	3	3

[1] As of June 30, 2014, 73 clients had completed 6-month follow-up GPRAs. The average number of days between the Intake and 6-Month GPRA is 209 (range is 122 to 494).
[2] Final GPRA is either a Discharge GPRA or a Follow-up GPRA (for clients who are still enrolled in the program). Average days between 6-month and Final GPRA is 415 (range is 73 to 781). The final GPRA numbers exclude deceased clients.

Use of Medical Services

In general, a larger percentage of clients accessed inpatient, outpatient, and emergency room treatment during the month prior to Intake than during the month prior to the 6-Month or Final interview (see Table A-3). When looking at all types of services at all three time points, clients most commonly accessed treatment to address a physical complaint. Across all three time points, clients most frequently accessed medical services through outpatient facilities.

Table A-3 Medical Treatment

	Intake		6-month[1]		Final[2]	
Total Sample (N)	*82*		*73*		*41*	
	n (%)	Mn[3]	n (%)	Mn[3]	n (%)	Mn[3]
Inpatient Treatment						
For any reason	18(22)	11	12 (16)	15	4 (10)	12
Physical complaint	9 (11)	3	8 (11)	20	4 (10)	12
Mental or emotional difficulties	5 (6)	16	2 (3)	4	0 (0)	0
Alcohol or substance abuse	6 (7)	16	4 (5)	6	0 (0)	0

	Intake		6-month[1]		Final[2]	
Total Sample (N)	*82*		*73*		*41*	
	n (%)	Mn[3]	n (%)	Mn[3]	n (%)	Mn[3]
Outpatient Treatment						
For any reason	37(45)	6	29 (40)	5	11(27)	5
Physical complaint	26(32)	3	14 (19)	3	9 (22)	5
Mental or emotional difficulties	21(26)	4	20 (27)	3	4 (10)	4
Alcohol or substance abuse	5 (6)	12	4 (5)	9	0 (0)	0
Emergency Room (ER)						
For any reason	18(22)	2	14 (19)	2	4 (10)	2
Physical complaint	13(16)	2	11 (15)	1	4 (10)	2
Mental or emotional difficulties	5 (6)	1	2 (3)	3	0 (0)	0
Alcohol or substance abuse	2 (2)	2	2 (3)	1	0 (0)	0

[1] As of June 30, 2014, 73 clients had completed 6-month follow-up GPRAs. The average number of days between the Intake and 6-Month GPRA is 209 (range is 122 to 494).
[2] Final GPRA is either a Discharge GPRA or a Follow-up GPRA (for clients who are still enrolled in the program). Average days between 6-month and Final GPRA is 415 (range is 73 to 781). The final GPRA numbers exclude deceased clients.
[3] Of those reporting treatment, average number of nights spent in inpatient treatment and number of times received outpatient or ER treatment.

Criminal Justice Involvement

GPRA interviews documented clients' self-reported criminal justice involvement with reference to the 30 days prior to their Intake, 6-month, and Final interviews (see Table A-4). According to this data, 12% of Enrolled clients reported being arrested during the month prior to Intake, 11% reported being arrested in the month prior to the 6-month interview and five percent were arrested in the month preceding the Final interview. One-fourth (27%) of clients indicated that they committed a crime during the month prior to Intake (compared to 22% at 6-month and 17% at Final). Of those who had committed a crime (including self-reported drug use), the average number of crimes ranged from12 to16 during the three time periods (Intake, Mn=12; 6-month, Mn=13; Final, Mn=16).

Table A-4 Self-Reported Criminal Justice Involvement

	Intake	6-month[1]	Final[2]
Total Sample (N)	82	73	41
During the past 30 days:			
Arrested for any reason (%)	12	11	5
# times arrested (Mn)	1	1	--
Spent at least one night in jail or prison (%)	13	14	5
# nights spent in jail or prison (Mn)	10	10	--
Arrested for drug-related offense(s) (%)	2	0	2
# times arrested for drug-related offenses (Mn)	--	--	--
Committed a crime (%)	27	22	17
# times committed a crime (Mn)	12	13	16
Currently awaiting charges, trial, or sentencing (%)	16	18	10
Currently on parole or probation (%)	7	4	10

[1] As of June 30, 2014, 73 clients had completed 6-month follow-up GPRAs. The average number of days between the Intake and 6-Month GPRA is 209 (range is 122 to 494).
[2] Final GPRA is either a Discharge GPRA or a Follow-up GPRA (for clients who are still enrolled in the program).

	Intake	6-month[1]	Final[2]
Total Sample (N)	82	73	41

Average days between 6-month and Final GPRA is 415 (range is 73 to 781). The final GPRA numbers exclude deceased clients.

Education and Employment

GPRA Interview indicated that clients' employment status remained largely unchanged during the course of program involvement. Given the program's target population, the high percentage of clients who were not working due to a disability was expected.

Table A-5 Education & Employment

	Intake	6-Month[1]	Final[2]
Total Sample (N)	*82*	*73*	*41*
Education			
Enrolled in School or Job Training Program: (%)			
Full-time	2	1	0
Part-time	5	3	5
Education Level: (%)			
Less than High School	34	32	39
High School/Equivalent	38	34	39
Some College	23	31	20
Unknown	5	3	2
Employment			
Employed	0	7[4]	2
Unemployed[3]	100	93	98
Looking for work	9	13	5
Disabled	52	69	80
Retired	7	4	8
Not looking for work	26	12	8
Other[5]	6	1	0

[1] As of June 30, 2014, 73 clients had completed 6-month follow-up GPRAs. The average number of days between the Intake and 6-Month GPRA is 209 (range is 122 to 494).
[2] Final GPRA is either a Discharge GPRA or a Follow-up GPRA (for clients who are still enrolled in the program). Average days between 6-month and Final GPRA is 415 (range is 73 to 781). The final GPRA numbers exclude deceased clients.
[3] Employment status of clients who indicated they were unemployed.
[4] Three clients indicated having part-time employment and two had volunteer positions.
[5] Other includes waiting for trucking license, working for a temp service, and currently under medical care.

Self-perceived Health Status

Three-fourths (71%) of clients rated their health as "fair" or "poor" at Intake (see Table A-6). When compared to Intake (13%), a larger percentage of clients rated their health as "good" at 6-month and Final (24%), although fewer rated their health as "very good" or "excellent" (12%) at Final when compared to the other time periods. Given that CHSH clients have a range of chronic physical and mental health conditions, the high percentage of clients who rate their health as "fair" or "poor" was somewhat expected.

Table A-6 Physical Health at Intake and Follow-up

	Intake	6-Month	Final
Total Sample (N)	*82*	*73*	*41*

Overall health rating (%)[1]			
Excellent/Very Good	16	21	12
Good	13	24	24
Fair/Poor	71	55	61

[1] Based on participants' ratings of how they would rate their overall health at the time of the survey

[3] The average number of days between the Intake and 6-Month GPRA is 209 (range is 122 to 494).

[4] Final GPRA is either a Discharge GPRA or a Follow-up GPRA (for clients who are still enrolled in the program). Average days between 6-month and Final GPRA is 415 (range is 73 to 781). The final GPRA numbers exclude deceased clients.

Mental Health Symptoms

On GPRA forms, clients were asked whether they had experienced a variety of psychological/emotional problems during the previous 30 days (see Table A-7). At Intake, the majority (77%) of clients indicated that they had experienced some psychological or emotional problems in the past month; of those, almost half (49%) described themselves as extremely or considerably bothered by those problems (not shown in table). The most frequently reported problems were: serious depression; serious anxiety or tension; and trouble understanding, concentrating, or remembering. For clients who reported psychological or emotional problems, symptoms were prevalent for more than half of the previous 30 days, on average. Six months after enrolling in the program, the majority (81%) of clients again reported experiencing psychological or emotional problems during the previous 30 days; of those, fewer (37%) described themselves as extremely or considerably bothered by those problems (not shown in table). In the Final assessment, 68% of clients indicated that they had experienced psychological or emotional problems during the previous 30 days; of those, 36% described themselves as extremely or considerably bothered by those problems.

Table A-7 Mental Health at Intake and Follow-up

	Intake	6-Month	Final
Psychological/Emotional problems experienced in past 30 days:			
Total Sample (N)	*82*	*73*	*41*
	% (Mn)[1]	% (Mn)[1]	% (Mn)
Serious depression	61 (16)	62 (17)	41 (18)
Serious anxiety or tension	67 (18)	66 (16)	54 (19)
Hallucinations	17 (19)	18 (17)	22 (14)
Trouble understanding, concentrating, or remembering	56 (23)	57 (18)	55 (15)
Trouble controlling violent behavior	12 (9)	8 (9)	12 (10)
Attempted suicide	1 (--)	4 (14)	2 (--)
Been prescribed medication for psychological/emotional problem	40 (25)	42 (24)	34 (18)

[1] Of those reporting problem, average number of days they experienced it during the past 30 days.

[3] The average number of days between the Intake and 6-Month GPRA is 209 (range is 122 to 494).

[4] Final GPRA is either a Discharge GPRA or a Follow-up GPRA (for clients who are still enrolled in the program). Average days between 6-month and Final GPRA is 415 (range is 73 to 781). The final GPRA numbers exclude deceased clients.

At the Final GPRA, a smaller percentage of clients reported having experienced depression and anxiety in the past month; those that did experience depression and anxiety, however, reported experiencing symptoms for a similar number of days.

Alcohol and Drug Use

In terms of ongoing alcohol use, the GPRA results demonstrated that 44% of clients reported any alcohol use in the month prior to Intake and a slightly higher percentage (48%) reported use in the month prior to the 6-month GPRA (see Table A-8). Compared to alcohol use, a smaller percentage of clients reported recent drug use at all three time periods. Clients' relatively stable consumption of alcohol and drugs was corroborated in case notes, wherein staff documented that many clients were not engaged in substance abuse treatment (which is available to, but not required of, CHSH clients).

Table A-8 Alcohol and Drug Use at Intake and Follow-up

	Intake	6-month	Final
Total Sample (N)	*82*	*73*	*41*
During the past 30 days, have you used:			
Any alcohol (%)	44	48	44
Number of times (Mn)	8	10	9
Alcohol to intox (5+ drinks in one sitting) (%)	24	25	17
Number of times (Mn)	8	10	15
Alcohol to intox (4 or fewer drinks in one sitting, felt high) (%)	12	11	12
Number of times (Mn)	5	10	6
Both alcohol and drugs (on the same day) (%)	12	7	7
Number of times (Mn)	4	11	4
Any Illegal drugs (%)	21	19	17
Number of times (Mn)	15	12	16
Injected drugs during the past 30 days (%)	4	4	5

The most frequently used illegal drug at both Intake and Final was marijuana (47% of those who indicated illegal drug use at Intake and 57% at Final); at 6-months, methamphetamine was the most frequently used illegal drug (50% of those who indicated drug use).

Table A-9 indicates that fewer clients reported extreme or considerable emotional problems due to alcohol or drug use at Final (0%) than at Intake or 6-month (20% both times).

Table A-9 Emotional Impact of Alcohol and Drug Use[1]

	Not at All	Somewhat	Considerably	Extremely
During the past 30 days: (%)				
How stressful have things been for you because of your use of alcohol or other drugs?				
At Intake	51	21	9	19
At 6-Month Follow-Up	65	15	3	18
At Final	65	20	10	5
Has your use of alcohol or drugs caused you to reduce or give up important activities?				
At Intake	73	15	5	8
At 6-Month Follow-up	78	8	8	8
At Final	85	5	10	0
Has your use of alcohol or other drugs caused you to have emotional problems?				
At Intake	57	24	10	10

	Not at All	Somewhat	Considerably	Extremely
At 6-Month Follow-up	69	10	10	10
At Final	80	20	0	0

[1] Only for those clients reporting alcohol and/or drug use during the previous 30 days (n=40 at Intake, n=39 at 6-months, n=20 at Final)

Violence and Trauma

Clients were asked whether they had ever witnessed or been victim of any violent experiences (unlike most of the GPRA questions, this was not specific to the previous 30 days). More than half of CHSH clients answered positively at all three time periods. For those who had experienced a violent or traumatic event, the majority experienced ongoing symptoms.

Table A-10 History of Violence and Trauma

	Intake	6-month	Final
Topic Addressed	67[2]	73	41
Experienced violence or trauma in any setting[1]	70	62	61
As a result of that experience have you (%)			
Had nightmares/intrusive thoughts	74	64	76
Tried hard to avoid thinking about it	77	71	76
Felt constantly on guard or watchful	81	73	76
Felt numb/detached from surroundings	68	69	68

[1] Includes school violence, family violence, sexual assault, psychological maltreatment, natural disaster, terrorism, neglect, and traumatic grief.

[2] Question was added to the GPRA after the program started and was therefore not asked at Intake for 15 clients. Those clients were asked the question on the follow-up GPRAs.