Fall 2014

Critical Time Intervention in Los Angeles' Skid Row: Learning from the Downtown Women's Center Pilot Intervention

harder+company
community research

Critical Time Intervention: Learning from the Downtown Women's Center Pilot

EXECUTIVE SUMMARY

Overview

The Downtown Women's Center (DWC) was awarded a grant from the Conrad N. Hilton Foundation and Fannie Mae to implement the first large-scale implementation of a time-limited intensive case management model in Skid Row called "critical time intervention" (CTI) with 80 chronically homeless women. With additional support from the Corporation for Supportive Housing, Los Angeles County Department of Mental Health, and Housing Innovations, the CTI project began in 2011 with the goal to provide intensive case management to women transitioning out of shelters, hospitals, and other institutions.

About the Evaluation

The goal of this evaluation was to understand how CTI can be used to support formerly chronically homeless people during the rapid transition to permanent supportive housing. This report highlights implementation successes and challenges, impact of CTI on clients, and lessons learned and recommendations for providers who are considering adopting this model.

Evaluation data from several sources (clients, CTI Case Managers, DWC staff) was collected at different points in time coinciding with the phases of CTI. Interviews and focus groups were also conducted with clients and providers during the period of October-December 2013 when most clients had completed CTI services. The evaluation used measures and interviews that captured changes in independent living skills, self-sufficiency, quality of life, and satisfaction to document the efficacy of CTI at DWC.

CTI Impact: Key Findings

CTI is a nine-month evidence-based approach to case management that has been shown to increase the likelihood that chronically homeless individuals remain stably housed, decrease negative psychiatric symptoms, and prevent psychiatric rehospitalization. The current evaluation found that CTI significantly impacted women in three main areas:

Housing Stability and Independence. Findings suggest that CTI was particularly effective at helping clients develop skills to manage everyday life which, in turn, supported their ability to remain stably housed:

- At intake, **60%** of clients required assistance with living skills "most of the time"; by twelve month follow up, **53%** required only "occasional" assistance.
- At intake **8%** of clients reported being employed; by six months into CTI, **21%** reported having some form of paid employment.
- At nine months into CTI, **87%** of clients reported improved ability to deal with their own needs.
- All 80 clients successfully completed the CTI program, and **100%** were stably housed at the end of the evaluation period (i.e., 3 months after termination of CTI services).
- **99%** of women continued to be stably housed one year post-CTI.

"She helped me get to a point where I could do most of the stuff that I needed myself…But the door was always open if I needed to knock."
~ CTI client

Mental and Physical health. The constant attention that CTI provides during transition into housing allows clients experiencing acute psychiatric episodes to be connected to care immediately so that the situation does not destabilize housing. Additionally, clients felt that CTI Case Managers helped connect them to physical health care resources. Findings suggest that clients experienced a significant reduction in mental health symptoms and better management of health care needs:

- At 9 months into CTI, **54%** of clients agreed or strongly agreed with the statement, *"my mental health symptoms are not bothering me as much."*
- At 12 months, **10.4%** of clients were rated as having recurrent mental health symptoms and persistent problems with functioning due to a mental health problem – a significant drop from 32% at intake.
- **70%** agreed or strongly agreed with the statement, *"I am better able to manage my health care."*

Connections to Family and Community. One of the major goals of CTI is to connect clients to their communities so that they can secure resources and social support in times of need. Data from both clinician and client report suggests meaningful increases in connections to the community throughout CTI participation:

- **94%** of clients knew where to get help when they need it.
- **80%** of clients reported feeling a sense of belonging to their community.

"I was a person [to my Case Manager], I was not a case file"

~CTI client

Recommendations and Lessons Learned

This evaluation documented the gains made by women during CTI and identified lessons learned by DWC and its partners that can be of value to other providers serving chronically homeless individuals during the transition to permanent supportive housing.

- **Adaptation of the CTI model**. CTI may be more efficiently delivered by considering clients on a case-by-case basis. CTI may be made more widely accessible by considering varied time frames based on client needs. Given that this is a departure from the evidence-based nine-month model, variations of this sort should be carefully monitored.

- **Case management support following CTI.** While the outcomes achieved by women during the CTI period were impressive, the additional case management services received following CTI undoubtedly played a role in maintaining gains. It is likely that this contributed to the extremely positive outcomes experienced by clients and should be carefully considered by other organizations that implement CTI services.

- **Strong linkages to services outside the home organization can make or break CTI.** DWC has a very comprehensive Day Center and Women's Health Center, which meant that the CTI program and clients had access to many services, programs, and resources that would likely have to be garnered externally by organizations with less comprehensive offerings in-house. Organizations considering implementation of the CTI model should carefully assess their resource and referral networks prior to initiating CTI.

Introduction

The Downtown Women's Center (DWC) was awarded a grant from the Conrad N. Hilton Foundation and Fannie Mae to implement a time-limited intensive case management model called "Critical Time Intervention" (CTI) with 80 chronically homeless women. With additional support from the Corporation for Supportive Housing, Los Angeles County Department of Mental Health, and Housing Innovations, the CTI project began in 2011 with the goal to provide intensive case management to women transitioning out of shelters, hospitals, and other institutions into permanent housing.

CTI is an evidence-based approach typically used to support people suffering from severe mental illness who have been hospitalized for psychiatric care and prisoners with mental illness who are transitioning to the community.[1] CTI has been shown to significantly increase the likelihood that chronically homeless individuals remain stably housed,[2] decrease negative psychiatric symptoms, and prevent psychiatric re-hospitalization.[3] CTI has also been shown to improve participants' continuity of care: they are more likely to maintain their medical and mental health appointments, as well as make more connections with their family and the community.[4]

While CTI has been used extensively in other parts of the country, DWC's implementation was the first large-scale implementation of its type in Los Angeles' Skid Row. The 0.4 square mile area that encompasses Skid Row is home to approximately 3,463 homeless individuals while Los Angeles County as a whole is home to nearly 40,000 homeless individuals on any given night.[5] There was broad interest among a variety of Los Angeles-based stakeholders – including funders, providers, and homeless advocates – to understand how CTI can be used to support the rapid transition to permanent supportive housing employed by the housing first approach. Therefore, the primary focus of this report is to document the implementation of CTI by DWC, including challenges experienced, lessons learned, and implications for other providers considering adopting a CTI model for work with chronically homeless in Los Angeles.

[1] Jarrett, M., Thornicroft, G., Forrester, A., Harty, M., Senior, J., King, C., Huckle, S., Parrott, J., Dunn, G., and Shaw, J. (2012) Continuity of care for recently released prisoners with mental illness: a pilot randomized controlled trial testing the feasibility of a Critical Time Intervention. *Epidemiology and Psychiatric Sciences, 21*, 187-193.

[2] Herman, D. et al. (2007). Critical Time Intervention: An Empirically Supported Model for Preventing Homelessness in High Risk Groups. *Journal of Primary Prevention, 28,* 295-312.

[3] Tomita, A., & Herman, D. (2012). The impact of critical time intervention in reducing psychiatric rehospitalization after hospital discharge. *Psychiatric Services, 63*, 935-937.

Herman, D., Opler, L., A Felix, Valencia, E., R Wyatt, & Susser, E. (2000). Critical time intervention: Impact on psychiatric symptoms. Journal of Nervous and Mental Disease, 188(3), 135-140.

[4] Dixon, L., Goldberg, R., Iannone, V., Lucksted, A., Brown, C., Kreyenbuhl, J., et al. (2009). Use of a critical time intervention to promote continuity of care after psychiatric inpatient hospitalization. *Psychiatric Services, 60,* 451-458.

[5] Los Angeles Homeless Service Authority. (2013). 2013 Greater Los Angeles Homeless Count. Retrieved from http://documents.lahsa.org/planning/homelesscount/2013/HC13-Results-LACounty-COC.pdf March 2014.

Evaluation Overview

Data for this evaluation was collected from a variety of sources, including clients, CTI Case Managers, DWC staff (including those not directly involved in the provision of CTI services) and outside experts knowledgeable about CTI, including Dan Herman, developer of the CTI model and Suzanne Wagner and Andrea White of Housing Innovations, who have developed a national technical assistance practice supporting the implementation of CTI with fidelity. Data was collected from clients and Case Managers at five key time points, which were selected to establish baseline data at program enrollment, to align with the end of each of the three phases of CTI, and upon program completion:

- **Intake:** As soon as possible following CTI enrollment
- **Phase One Assessment:** During the third month of CTI services
- **Phase Two Assessment:** During the sixth month of CTI services
- **Phase Three Assessment:** During the ninth month of CTI services
- **Twelve Month Follow up:** Approximately three months following termination of CTI services

Evaluation assessments were intentionally conducted at these intervals, so that the review could reflect the status of women as they transitioned through CTI. The one-year follow-up was intended to capture change, either positive or negative, three months after the end of CTI to see if gains made during CTI were maintained in the short-run. Interviews and focus groups were conducted with clients and providers during the period of October-December 2013 when most clients had completed CTI services. *Appendix A* includes a table illustrating the timing of all evaluation data collection activities.

Measures

The key measures used to describe the impact of CTI on clients include CTI Domains, including an Independent Living Skills Checklist, the Arizona Self-sufficiency Matrix, a demographic questionnaire, the Quality of Life Interview (full version) and a client satisfaction measure adapted from the Mental Health Statistics Improvement Program (MHSIP; Department of Health Care Services).

How to read this report

The body of this report is organized in two main sections and integrates data from a variety of sources, including (1) Measures completed by clients and CTI Case Managers, (2) Focus groups conducted with clients, and (3) Interviews with staff at DWC and SRO Housing Corp., technical assistance providers and other stakeholders. The impact of CTI on clients is presented in the section called *CTI Client Outcomes* while information focused on lessons learned and implications for replication can be found in the section called *Implementation of CTI in Los Angeles: Lessons Learned and Implications*.

Report Dissemination

The Downtown Women's Center is committed to sharing its learnings with the larger community. This report will be posted on the DWC website (www.DWCweb.org), shared with all CTI project funders and program partners, and presented at conferences and colloquia throughout the nation.

What is CTI?

Critical Time Intervention is an empirically supported, time-limited case management model designed to prevent homelessness and other adverse outcomes in people with mental illness following discharge from hospitals, shelters, and other institutions. This transitional period is one in which people often

have difficulty re-establishing themselves and accessing needed supports. It has been demonstrated that focused, time-limited assistance during this critical period can have enduring positive impacts.

CTI Implementation: After participant identification, the first step in CTI implementation is the *pre-CTI phase*. Occurring in the three months prior to discharge from an institution or shelter, the pre-CTI phase is an essential opportunity for the CTI Case Manager to build a trusting relationship with a participant so that the other phases of CTI will be most productive. This includes identifying housing opportunities, helping build skills, assisting with needs such as identification documents and entitlements, and identifying long-term goals. Following this pre-CTI phase, the process is a time-limited, three-phase progression of decreasing intensity designed to establish a relationship with a participant that includes: (1) transition to the community, (2) try-out systems and services, and (3) transfer of care over a period of nine months (three months per phase).

Transition to the community, the first phase, focuses on providing intensive support and assessing the resources that exist for the transition of care. During the first few weeks following the transition from institution to housing, the CTI Case Manager maintains a high level of contact with the participant, including services such as accompanying them to appointments with community providers, "introducing" her to new providers and facilitating the development of a relationship, meeting with key figures in the participant's residence, and encouraging compromises when problems arise. During these initial intensive contacts, the Case Manager also gathers data needed for treatment planning in the transition period. S/he will work together with participants and service providers to make arrangements in a handful of areas seen as most critical for the participant to thrive in the community.

Try-out systems and services, the second phase of CTI, is devoted to testing and adjusting the systems of support that were developed in the first phase. At this stage, community providers assume primary responsibility for the provision of support and services, and the CTI Case Manager focuses on assessing the degree to which this support system is functioning as planned. During Phase Two, the Case Manager encourages the participant and members of her support system to handle problems on their own. The Case Manager meets with the participant less frequently, but maintains regular contact in order to observe how the plan is working, intervene when crises arise, and modify the support system as needed.

Transfer of care, the final phase of CTI, focuses on completing the transfer of care to the community resources that will provide long-term support to the participant. The CTI model works to ensure the transfer-of-care is a continual process throughout the nine-month intervention, in which the CTI Case Manager is gradually reducing her/his role in delivering services to the participant. This gradual process ensures that the termination of CTI is not perceived by the participant and her support system as an abrupt loss, thus strengthening the probability of maintaining housing stability and engagement with supportive services.

CTI Client Outcomes

There is a long-standing and comprehensive evidence base for the efficacy of CTI as a clinical approach with chronically homeless individuals. Research has established that CTI increases the probability that individuals will remain stably housed, reduces psychiatric symptoms and hospitalizations, increases

continuity of care and supports increased connections with family and community[6]. A set of clinical outcomes was assessed as part of DWC's implementation of CTI to document the efficacy of the intervention in Los Angeles relative to other implementations of CTI elsewhere. This section of the report is arranged in the following subsections:

- Client Characteristics
- Impact of CTI on Housing Stability and Independence
- Impact of CTI on Mental Health and Health
- Impact of CTI on Connections to Family and Community

Client Characteristics

Recruitment and enrollment in CTI

At the onset of the CTI program, 26 new DWC residents moving into the newly built permanent supportive housing San Pedro Street Home of DWC were given the opportunity to apply for participation in the program. Eligibility for the program was determined by the following:

- Chronically homeless status, which is defined by the US Department of Housing and Urban Development as experiencing homelessness or a year or longer or at least four episodes of homelessness in the last three years, plus the presence of a disabling condition
- Mental health diagnosis, which could include a self-reported diagnosis
- Judged to be likely to benefit from CTI by DWC's experienced case management team

Of the original 26 women who moved into the San Pedro Street location, five women elected not to participate in CTI[7] and 21 women applied, met the eligibility criteria, and were enrolled in CTI in March 2011. Additional clients were enrolled at move-in if they met the eligibility criteria and were willing to participate. The remaining 59 participants were recruited from two additional program sites: The Ford Hotel (owned and managed by SRO Housing Corporation) and Los Angeles Street Home (owned and managed by DWC). By October 2013, 80 women had enrolled in CTI and completed the formal CTI program.

The San Pedro Street housing is co-located with the DWC Day Center, which houses a number of programs and services, including access to medical and mental health services, a meals program, and employment training. Residents of Los Angeles Street Home and The Ford Hotel had access to all Day Center programs and services, but had to travel a modest distance to access them. This difference in colocation of services is explored more fully in the *Implementation* section of the report. In addition, there were seven residents who left DWC for scattered site housing but remained in CTI. We examined demographic data from all four groups (San Pedro Street Home, Los Angeles Street Home, The Ford Hotel and scattered site) to see if clients from different locations were systematically different in any

[6] Herman, D. et al. (2007). Critical Time Intervention: An Empirically Supported Model for Preventing Homelessness in High Risk Groups. Journal of Primary Prevention 28:295-312.

[6] Tomita, A., & Herman, D. (2012). The impact of critical time intervention in reducing psychiatric rehospitalization after hospital discharge. Psychiatric Services, 63:935-937, doi: 10.1176/appi.ps.201100468

Herman, D., Opler, L., A Felix, Valencia, E., R Wyatt, & Susser, E. (2000). Critical time intervention: Impact on psychiatric symptoms. Journal of Nervous and Mental Disease, 188(3), 135-140.

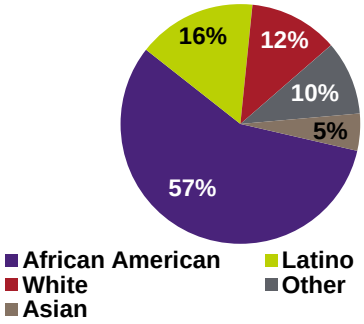
[6] Dixon, L., Goldberg, R., Iannone, V., Lucksted, A., Brown, C., Kreyenbuhl, J., et al. (2009). Use of a critical time intervention to promote continuity of care after psychiatric inpatient hospitalization. Psychiatric Services, 60, 451-458.

[7]Program staff did not disqualify any potential participants. Most of the clients who did not enroll in CTI had a social support network, were working, and did not feel like they needed it at time of move-in.

meaningful ways. There were no statistically significant differences in any of the demographic variables across sites we examined, including age, ethnicity, and housing history. *Appendix B* includes the data used to test for demographic differences at intake.

Demographic information and housing history were primarily drawn from the client assessments completed at program intake; in the event the assessment was missing, if data was available from other sources it was utilized. A full description of the completeness of data for each evaluation assessment point can be found in *Appendix A*.

Exhibit 3. Client Race/Ethnicity (n=78)



Client age and race/ethnicity

CTI participants represent an ethnically diverse cross-section of women (Exhibit 3) whose ages ranged from 22 to 75 years at program entry; as a group the women had an average age of 49 years. With the exception of gender, these demographics largely mirror those of the chronically homeless population found in Los Angeles Skid Row[8].

Status at program entry

About 75% of CTI participants reported that they graduated from high school, most reported "less than good" health at program entry, and 100% of the women had received treatment at least once for mental health issues, the most prevalent being schizophrenia, bipolar disorder, and depression. Many had been connected to some form of health insurance (for example, Healthy Way LA, ORSA, Medical, Medicaid, private insurance; see Exhibit 4). The number of women reporting entering CTI with insurance was higher than we expected, so we followed up with Program Staff to better understand factors that may have contributed to this finding. Staff reported that many of the women who moved into DWC housing were clients of the DWC Day Center prior to CTI enrollment and may have been connected to General Relief. During this same period, individuals receiving General Relief were automatically connected to Healthy Way LA via the Los Angeles County Department of Public Social Services (DPSS), which may in part explain how many women accessed insurance in advance of CTI. Only 9% of women were on probation or parole at program entry.

Exhibit 4. CTI participant characteristics at enrollment (N=78)	
High school graduate /equivalent or more	**74%**
In "good" or better physical health	**45%**
Have medical insurance	**80%**
On probation or parole	**9%**

[8] United Way (2013). Skid Row Homeless Count and Homeless Registry 2013 Community Brief-Back Fact Sheet. Retrieved from http://www.unitedwayla.org/wp-content/uploads/2013/03/Skid-Row-Report.pdf.

Housing history

All CTI participants shared a history of chronic homelessness; the average length of homelessness among participants was 10 years, with several experiencing as many as 20 years on the streets. Episodes of homelessness began early for nearly a third of the participants, for example, 30% reported running away from home for more than a week at least once before the age of 17. All participants spent time on the streets, in a shelter, or in a public place. Additionally, many have faced mental, substance abuse, and physical health issues, as noted in their history of hospitalization (see Exhibit 5). While no participants reported spending time in jail/prison in the three months immediately preceding CTI enrollment, 58% reported being incarcerated at some time in their lives.

Exhibit 5. Housing history three months prior to CTI enrollment

CTI clients with an overnight stay	
In a detention center or jail	0%
On the streets	53%
In a hospital for medical or emotional reasons	6.5%
In an overnight program for drugs and/or alcohol treatment	4%
In a shelter	45%

Impact of CTI on Housing Stability and Independence

All 80 clients successfully completed the CTI program, and 100% of clients were stably housed at the end of the evaluation period, which was three months after the termination of CTI services. This is a highly meaningful outcome for both the clients that participated in CTI and providers of supportive housing. By way of comparison, in a randomized control trial of CTI, researchers reported that 5% experienced at least one night of homelessness within eighteen months of CTI[9]. At one year post-CTI, 99% of women remained stably housed. Of the original 80 women enrolled in the program, 73 remained in the same housing, two moved on using a Section 8 Voucher, four moved in with family members (one of whom subsequently passed away), and one was evicted.

100% of women were stably housed three months post-CTI; one year post-CTI 99% of women remained stably housed.

In addition, no clients reported spending any nights on the street, in a shelter or in an overnight detox program related to drug or alcohol use in the twelve months following CTI enrollment.

[9] Herman, D.B., Conover S, Gorroochurn P, et al. (2011). Randomized trial of critical time intervention to prevent homelessness after hospital discharge. *Psychiatric Services, 62*, 713–719.

Independence

Housing stability is largely dependent on a client's ability to effectively manage day-to-day activities – things like paying rent on time, following house rules, managing finances, preparing meals, maintaining good living conditions in their apartment, accessing transportation, education, and employment, and handling everyday problems as they arise. The Arizona Self-Sufficiency Matrix was used to assess skills related to functional independence at program intake and throughout the CTI period. At intake, 60% of clients required assistance with living skills most of the time; by the twelve month follow up, 53% of clients required only occasional assistance.

After six months of CTI, the percentage of clients with some form of paid employment nearly tripled from 8% to 21%

Increases in independence represented some of the largest gains measured in this evaluation[10]. There were large gains in employment among CTI clients – at intake 8% reported being employed, by Phase Two (six months of CTI) 21% of clients reported having some form of paid employment. Clients themselves perceived and reported changes in their ability to manage everyday life skills. During Phase Three assessments (nine months of CTI):

- **89%** of clients felt they deal more effectively with daily problems.
- **87%** reported improved ability to deal with their own needs.
- **87%** reported being better able to do the things they want to do.
- **75%** reported improved ability to handle things when they go wrong.

Taken together these findings suggest that CTI was particularly effective at helping clients develop skills to manage everyday life which in turn supported their ability to remain stably housed.

Impact of CTI on Mental and Physical Health

Changes in health and mental health status were evaluated via data provided by clients and Case Managers. According to information provided by Case Managers via clinical assessment, clients experienced a significant reduction in mental health symptoms. At program intake, 32% of CTI participants were rated as having recurrent mental health symptoms and persistent problems with functioning due to a mental health problem. This dropped to a low of 6.3% at six months and increased slightly to 10.4% at twelve months. Clients also reported meaningful changes in their mental health. During the Phase Three assessment (nine months into the CTI program) 54% of clients agreed or strongly agreed with the statement, "*my mental health symptoms are not bothering me as much*." Based on CTI Case Manager assessment, 19% of clients had substance abuse issues at intake and 14.3% were still dealing with these issues at the twelve month follow up assessment.

CTI clients entered the program with myriad health care needs. At intake, 55% of women rated their own health as fair or poor, and 33% reported suffering from a chronic health condition. About 7% of

[10] Cohen's d, a standard measure of effect size, for changes over time in the Independence subscale of the SSM was .74 which is considered a large effect size in social science research

women reported being hospitalized in the three months prior to enrollment in CTI; however, over the course of CTI, 16% of clients experienced a hospitalization. We examined the hospitalization data more closely and found three patterns of use:

- **No hospitalizations** – **74%** of clients did not experience a hospitalization in the three months prior to CTI or during the evaluation period.
- **Hospitalizations before and during CTI** – **6.5%** of clients reported a hospitalization in the three months immediately prior to CTI and also experienced a hospitalization during the evaluation period.
- **Hospitalization only since CTI** – **19%** of clients did not report a hospitalization in the three months prior to CTI but did experience a hospitalization during the evaluation period.

This data suggests an overall increase in hospitalizations for CTI clients. These findings are consistent with other research that has reported similar short-term increases in health care costs and utilization[11] as individuals secure health insurance and support in accessing health care. Longer term studies of health care costs indicates significant reductions in emergency department use and high cost hospitalizations over the long run for residents of permanent supportive housing[12]. Data from client surveys suggests that clients themselves perceive increased use of health care resources due to the support they received during CTI. For example, during Phase Three assessments (nine months of CTI), 54% of clients agreed or strongly agreed with the statement, "*my physical health has improved"* and 70% agreed or strongly agreed with the statement, "*I am better able to manage my health care."* Overall clients are satisfied with the care they received from DWC's CTI program. At the Phase Three assessment (nine months into the CTI program), 88% of clients agreed or strongly agreed with the statement, "*This program meets both my mental and physical health care needs*." During focus groups, clients explained how Case Managers helped them gain access to health and mental health care:

> *"I do my own [appointments] now but when I first came in the building, my CTI Case Manager would ask me, 'when was the last time you had a physical' and things like that…When I had a problem with mental health, she talked to them, got it straightened up, and she made the appointment with my therapist, the psychiatrist. When I had to go to the hospital, she took care of that for me, but now I make my own appointments. I do everything myself, but initially she did it. She was like a go-between."*
>
> ~CTI Client

This and other focus group data suggests that CTI Case Managers facilitated clients' use of health care resources, resulting in short term increases in use that may ultimately lead to long-term reductions in cost.

Impact of CTI on Connections to Family and Community

Previous research has found that CTI produced positive impacts on clients' connections to their families and communities. Change in connections to family and friends were assessed using the *Quality of Life Interview (Full Version)*. CTI participants rated their satisfaction with their family and other social connections via an interview with Case Managers. Matched intake and twelve month follow up data

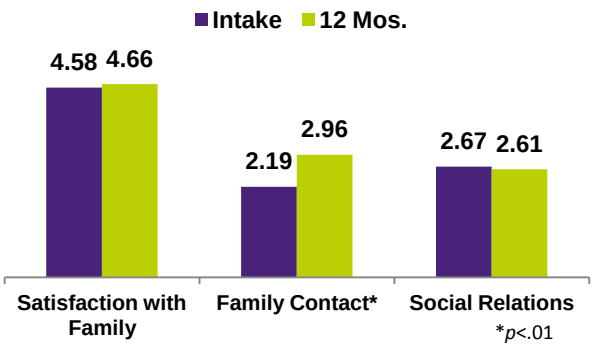
[11] Taubman, S., Allen, H., Wright, B., Baicker, K., Finkelstein, A. and the Oregon Health Study Group (2014). Medicaid Increases Emergency Department Use: Evidence from Oregon's Health Insurance Experiment, Science, 343(6168): 263-268.
[12] Flaming, D., Lee, S., Burns, P. and Sumner, G. (2013). Getting Home: Outcomes from Housing High Cost Hospital Patients. Retrieved March 28, 2014 from http://www.economicrt.org.

was available for 54 clients for the Satisfaction with Family scale and Family Contact scale, and for 41 clients for the Social Relations scale[13].

As illustrated in Exhibit 6, clients reported increases in family contact (from less than once a month on average to once a month on average). In addition, 60% of clients reported that they are "*doing better in social situations*" since participating in CTI[14].

Clients did not report increases in satisfaction with their family or with other non-family friends (social relations). CTI Case Managers also reported statistically significant increases in Family/social relations domain of the SSM from Intake (average 2.1) to the twelve month follow up (2.6). In practical terms, that means clients who entered the program receiving little support on average from family/friends were receiving some regular support within a year of beginning CTI.

Exhibit 6: Change in CTI Client Quality of Life Ratings



Connections to community

One of the major goals of CTI is to connect clients to their communities so that they can secure resources and social support in times of need. Data from both clinician and client report suggests meaningful increases in connections to the community occurred throughout CTI participation. At the Phase 3 assessment (9 months of CTI):

- **94%** of clients knew where to get help when they need it.
- **80%** of clients reported feeling a sense of belonging to their community.

CTI Case Managers also noted significant increases in community involvement (from the SSM); on average clients moved from lacking knowledge of ways to become involved in the community to having some community involvement but with barriers (such as transportation) by the end of the evaluation period. Clients also increased their ability to independently keep appointments and travel.

*CTI Case Managers offer **support with respect and dignity,** which is crucial during a transition period.*

[13] *Satisfaction with Family* Scale values ranged from 1=Terrible 2= Unhappy, 3= Mostly Dissatisfied, 4= equally dissatisfied/satisfied, 5= Mostly Satisfied, 6 =Pleased, 7 =Delighted; *Family Contact* Scale values range from 1= not at all, 2 = less than once a month, 3 = at least once a month, 4 = at least once a week, 5= At least once a day; *Social Relations* Scale values range from 1= not at all, 2 = less than once a month, 3 = at least once a month, 4 = at least once a week, 5= At least once a day

[14] Based on self-reported data from 48 clients at the Phase Three (nine months of CTI) assessment.

Implementation of CTI in Los Angeles: Lessons Learned and Implications

This section of the report is focused on the implementation of CTI by DWC in order to support future efforts to implement CTI in Los Angeles as well as to inform the efforts of funders and other stakeholders. It includes an overview of CTI implementation at DWC, identifies unique strengths and assets that DWC brought to CTI, and describes some of the challenges and barriers DWC overcame in the provision of CTI services. This section closes with considerations and lessons learned from this effort intended to stimulate learning and dialogue among agencies serving chronically homeless individuals in Los Angeles.

Implementing CTI at DWC

DWC staff began to receive CTI training and began the "pre-CTI" outreach process with clients in January 2011. According to the staff and experts we interviewed[15], the CTI team engaged in foundational work that was critical to the success of this implementation of CTI between January and March 2011, when the first cohort of women began phase one of CTI. Here we identify some of the key activities that supported successful implementation of CTI at DWC.

Getting ready for CTI

Information from interviews with DWC staff, project partners, supervisors, and outside experts was used to identify the following activities and themes intended to capture important pre-CTI activities that organizations considering undertaking this approach should consider.

- **Provide CTI training for all staff:** DWC provided some form of training about CTI to all staff members. This included staff from DWC's operations and programs teams. Operations staff included Property Managers, Compliance Specialists, and maintenance staff. Programs staff included Resident Managers, Resident Case Managers, clinicians, Benefits Specialists, vocational education staff, health staff, and CTI Case Managers. It should be noted that every individual staff person who would impact the housing stability of the client was trained including direct service staff, managers, directors, and executive-level staff. This created understanding among staff about what to expect as clients are moving through the process, how to be supportive to CTI Case Managers and clients and why CTI requires smaller caseloads than other approaches. Training activities included multi-day CTI trainings and technical assistance by Housing Innovations. These trainings occurred three times throughout the project period, providing ongoing refreshers for staff who had been trained as well as opportunities to orient staff who were new to the organization. Regular case conference support and chart reviews at the completion of each CTI phase were also provided by the Housing Innovations team to support formal trainings.

- **Clarify roles and responsibilities:** DWC was thoughtful about the roles that all staff play in the CTI process and how staff could best work together to ensure the success of CTI. The team clarified the roles and responsibilities of CTI Case Managers, Resident Case Managers, Day Center Case Mangers, and Resident Managers prior to the start of CTI. A number of meetings

[15] As noted earlier, "experts" include DWC clinical staff, Dan Herman, the creator of CTI, and staff from Housing Innovations, who have established a national practice on CTI fidelity.

were held by the program development team including executive-level staff and existing Case Managers to discuss where responsibilities would fall to ensure continuity of care. Job descriptions specific to the CTI team were developed. Everyone who would interact with the residents regularly through the CTI program was cross trained and supported through team meetings to ensure that the roles developed were appropriate for establishing coordinated care. According to staff, this approach allowed clients to feel safe in discussing issues with following the house rules or paying rent on time and also allowed a diverse picture of client needs to inform treatment planning and ongoing care.

"You can tell she [the CTI Case Manager) was genuinely concerned. She made you feel special. No matter how trivial the situation was, she did not take it lightly. No matter how big or how small it was. Whenever I had to go and see her, whether I had an appointment, I will just go in there if something was going on with me, you know, a big emergency. She always welcomed me in."
~ CTI client

+ **Build on a strong infrastructure of services and partner agencies:** DWC has a long history of providing services to chronically homeless women on Skid Row. Its Day Center offers a variety of services including health care, mental health services, comprehensive basic needs services such as meals, shower, and laundry, and case management services. DWC has developed a network of partner agencies for referrals as well and CTI staff was able to leverage these resources from the start in order to ensure clients have access to the services they needed. The strong history of partnerships in the community also enabled DWC to partner successfully with SRO Housing Corporation to work with women moving into the Ford Hotel during the pilot project. If these partnerships were not in place prior to the implementation of CTI, it would likely have not been as successful.

These pre-CTI activities were viewed as critical to the success of CTI by staff and project partners precisely because it afforded the CTI team both internal and external support and resources needed to ensure the successful transition of clients through CTI

CTI Implementation

Once enrolled in the CTI program, clients were assigned to a Case Manager who worked with them throughout the duration of the program. During the first phase of CTI (months 1 through 3) clients met with their Case Managers as often as necessary. This often included multiple meetings each day up to five days a week. During this phase, CTI Case Managers and clients worked together to develop a housing stabilization plan, where client-driven goals were established and tracked throughout the duration of CTI.

CTI Case Managers offered a variety of supportive services, including:

- Assistance with basic living skills (for example, doing laundry, cooking, transportation)
- Connection to social services within and outside DWC
- Development of strategies to meet education and employment goals
- Building money management skills
- Access to health insurance and health care
- Linkage and promotion of participation in activities that build social connections

Implementation differences across housing sites

Recall that CTI participants were primarily housed at three locations (San Pedro Street Home, Los Angeles Street Home and The Ford Hotel) with a handful of clients in scattered site housing throughout Los Angeles County. Because an array of services and programs were collocated in the Day Center at the San Pedro Street Home, there was an initial concern that clients residing in other locations might have less access to these services and might therefore experience less positive outcomes. Although CTI participants residing in the Ford Hotel and Los Angeles Street Home had to travel short distances (.6 and .3 miles respectively) across Skid Row to access Day Center activities, services and resources, we found no significant differences in any client outcomes based on housing site.[16] While colocation of services may have been more convenient for clients, it did not appear to create a barrier to achieving positive treatment outcomes in the domains we assessed. *Appendix C* includes demographic comparisons for CTI clients from each residence.

"Education was one of my goals but again I needed to get my health in good order first. When that stabilized, she [the CTI Case Manager] helped me reapply for school and find funding to go back."
~CTI client

Team meetings and clinical supervision

The implementation of CTI also requires significant amount of coordination and meeting time. The DWC team held weekly CTI case management meetings which were supervised by a clinician to discuss client needs, trouble shoot and assess progress towards treatment goals. Team meetings that included CTI Case Managers, health team, clinical team, housing staff and property management staff occurred weekly in addition to the CTI case management meetings. CTI Case Managers had weekly group supervision with the Project Director (who was also the Clinical Health Services Director) and the lead CTI Case Manager met biweekly with the project director for one-on-one supervision. A number of informal meetings also occurred among staff on the treatment teams outside of the scheduled meetings to ensure coordination of care. Resident Managers were involved throughout the process to ensure that they had the skills to respond to crises that may occur during the evening hours. According to staff, this level of supervision was especially important for ongoing engagement when client's mental health symptoms presented barriers. Specifically, the Clinical Health Services Director was able to work with Case Managers to develop approaches that ensured clients made progress towards goals throughout the program period. Frequent supervision and the continued engagement of the Housing Innovations team in this process also provided opportunities to maintain strong fidelity to the CTI model.

What made CTI effective?

We considered interview data from DWC providers and partner staff, as well as focus group findings from DWC clients to better understand what aspects of CTI were most helpful to clients and to identify

[16] There was one statistically significant difference among sites on client assessments; at both intake and Phase One (three months of CTI) clients from Los Angeles Street Home had significantly lower Independent Living Skills scores than clients from any other site, however these differences no longer existed at Phase Two, Phase Three or Twelve Month Follow Up assessments.

programmatic challenges. This information can be used to make recommendations for future implementations of CTI by DWC and other organizations.

CTI clients found the Case Manager's support and advocacy especially helpful during their initial transition into housing. Developing basic living skills and connections to social services was essential in helping women stabilize and gain a sense of well-being.

Clients ultimately felt that the time CTI Case Managers spent helping them develop life-skills (such as paying rent and organizing their apartment) was critical to becoming stabilized. According to DWC staff, many clients have a history of trauma, often coupled with significant mental health challenges. This can make it difficult for clients to manage basic living skills on their own.

Additionally, for those women with severe mental illnesses, the constant attention that a CTI Case Manager provides during early stages of transition into housing allows clients experiencing an acute psychiatric episode to be connected to care immediately so that the situation does not destabilize housing. Connections to ongoing care also help clients maintain their treatment and deal with situations before they reach a crisis level.

Several interviewees mentioned that as clients received CTI services over time and became more stabilized, they gained a sense of independence, which empowered them to do things on their own and meet their goals, such as paying rent on-time, getting a job, keeping appointments, going to school, and becoming more connected to their community:

> *"**One [CTI client] now is a resident leader**. She puts on movie night for the other residents. She is part of the community. She is out doing her own life. Another [client], a lady that used to be in her shell, **now speaks up for herself**."* *~ Resident Manager*

CTI clients felt that the *approach* of the Case Managers was unique. CTI offered more individualized attention compared to traditional case management models. This resulted in a different type of relationship between client and Case Manager. During focus groups, women frequently mentioned that their Case Manager treated them like "a friend," "showed they cared," and "were always there" when they needed them. For these women, the experience of CTI was more than just being connected to resources; it is about *how* these connections were made. In the words of one client, CTI Case Managers offer "support with respect and dignity", which clients felt was crucial during a period of transition.

According to experts we interviewed, DWC staff members are highly skilled Case Managers. Clients frequently reported that they felt respected and valued by their CTI Case Manager and reported uniformly high levels of satisfaction with the services they received as part of DWC (see *Appendix D*).

CTI Case Managers were also helpful in advocating for women and helping them make connections to appropriate social services given their needs. This included referrals to mental health providers and/or substance abuse services. Some clients reported that initially, having the CTI Case Manager take the extra step to make appointments for them and take them to these appointments was especially helpful. Once clients felt more comfortable making their own appointments, they did not need as much support and were capable of handling these tasks on their own in later phases of CTI.

CTI Implementation Challenges

During our interviews, challenges experienced by CTI staff and clients emerged. These types of challenges are typical of new programs and can offer opportunities for growth and organizational learning.

Although CTI clients were made aware of the nine month transition/graduation, many clients felt that CTI should continue longer.

Once clients began CTI, Case Managers began to prepare them for the eventual transition out of CTI. This involved having meetings with the client, CTI Case Manager and Resident Case Manager (who would take over case management responsibilities after CTI) during the last couple of months of phase 3. This was done to ensure that clients understood that they would receive support from a different Case Manager once they graduated from CTI. Not all clients ended CTI after 9 months; some were extended to 12 months, while some ended earlier based on their progress and needs. The transition out of CTI was difficult for some clients who felt that they still needed the regular ongoing support of the CTI Case Manager. This is understandable given that CTI clients spent the first 9 months building trust and depended on their CTI Case Manager for support in a timely manner. And, as one highly experienced provider pointed out during interviews, for many women, the relationship with their CTI Case Manager was the "first close, supportive relationship they had experienced in a long time."

For some women, transitioning to traditional case management services has been challenging. During focus group discussions, several clients mentioned a desire for more frequent case management support than what traditional case management provides during periods of challenge. However findings from outcome data suggest that despite perceptions and desires for extended time in CTI, clients are maintaining the gains they made during CTI.

Implementation challenges within DWC included insufficient time and resources for administrative tasks and case reviews, staff turnover, and connecting clients to services outside of DWC.

While CTI staff were trained and provided the technical assistance to properly implement CTI at DWC and SRO Housing Corp., there were some challenges that were identified by CTI staff. For example, given the intense nature of this model, the staff was required to meet frequently to discuss client needs and progress. During periods where clients were experiencing many challenges, weekly meetings were sometimes not enough time to discuss the entire case load, which required additional meetings.

CTI also requires that additional tracking and monitoring be completed on a regular basis (including evaluation). Ultimately, it was the lead CTI Case Manager who provided guidance to ensure proper documentation. Several CTI Case Managers left DWC throughout the implementation of CTI, so there were periods of time where only one CTI Case Manager took the lead on the full CTI client caseload while the temporary CTI Case Managers would assist with clients who needed a lower level of care. While the change in staffing did not appear to negatively impact client outcomes, clients were aware of the staffing situation and found it more difficult to have their needs met during these times.

> *"They did very good for me.* ***They let me have the level of independence or hand-holding that I needed****. [My CTI Case Manager] went with me to social services to advocate."*
>
> *~CTI client*

Finally, DWC staff explained that while CTI staff worked diligently at connecting clients to services and resources, there is

still room to develop stronger connections to services *outside* of DWC. In particular, resources that were unavailable at DWC, especially those that were part of larger systems such as public benefits or law enforcement (probation or parole), required additional relationship building. Given the strong infrastructure of existing programs, services and activities available within DWC, there may be less pressure to develop external relationships for DWC than other providers.

Lessons Learned and Recommendations

This evaluation documented some of the gains made by women during CTI and identified lessons learned by DWC and its partners during implementation that can be of value to other providers serving chronically homeless individuals during the transition to permanent supportive housing. Here we offer implications and recommendations of the findings from this work.

- Time-limited intensive case management was highly effective at supporting transitions during a critical period, which was evidenced by the fact that 100% of clients continued to be stably housed. **Organizations that may not be able to implement the full CTI model may see benefits to using time-limited intensive case management with their most vulnerable clients.**

- CTI may be more efficiently delivered by considering clients on a case-by-case basis. Some clients needed the full nine months to achieve and maintain gains, but other clients needed little support beyond the initial three months (Phase One). **CTI may be made more widely accessible by considering varied time frames based on client needs. Given that this is a departure from the evidence-based model, variations of this sort should be carefully monitored.**

- **Consider the support clients receive following CTI.** While the outcomes achieved by women during the CTI period were impressive, the additional case management services received following CTI undoubtedly played a role in maintaining gains. DWC has a reputation among its peers of delivering exceptionally high quality case management. The case management provided by DWC staff reflects a highly coordinated and assertive model that consistently attempts to engage clients in voluntary services. In the words of one interviewee, *"DWC is genius at case management."* It is likely that this contributed to the extremely positive outcomes experienced by clients and should be carefully considered by other organizations that implement CTI services.

- **Select Case Managers thoughtfully for fit with the CTI model.** DWC experienced some challenges with turnover among CTI Case Managers throughout the project period. The CTI model is very intense for both clients and Case Managers and is not a good fit for everyone. Among those who have implemented it, there is a sense that CTI requires more patience, persistence, and creativity than other styles of case management. In addition, Case Managers themselves felt CTI requires more administrative documentation and reporting, especially

during the initial phases. Finding staff that have the clinical expertise and administrative skills to succeed at CTI may require substantial time and effort.

- **Carefully delineate the roles of Property Managers and Case Managers, and ensure everyone is educated and knowledgeable about the CTI model.** According to the experts we interviewed, one of the factors that contributed to DWC's successful implementation was the work they did up front to create clear roles for Property Managers and Case Managers. This was important so that CTI clients could openly discuss challenges with their housing and house rules with Case Managers. In turn, the efforts that the clinical team made to ensure everyone from property management understood the CTI approach allowed the two teams to work effectively together. Property Managers knew that if they were experiencing challenges with a CTI client, they could communicate with the Case Manager to support a positive resolution for everyone.

- **Strong linkages to services outside the home organization can make or break CTI.** DWC has a very comprehensive Day Center which includes a mental health team and Women's Health Clinic that specializes in primary care, which meant that the CTI program and clients had access to many services, programs and resources that would likely have to be garnered externally by organizations with less comprehensive offerings in-house. Organizations considering implementation of the CTI model should carefully assess their resource and referral networks prior to initiating CTI.

Appendix A

Evaluation Measure Completion Rates

Exhibit A1. Evaluation Assessments by Time Period					
	Client Interviews	CTI Domains	Self-Sufficiency Matrix	Focus Groups	Staff/expert Interviews
Intake	X	X	X		
Phase 1	X	X	X		
Phase 2	X	X	X		
Phase 3	X	X	X		
Twelve Month Follow up (3 months post-CTI)			X	X	X

Evaluation measures were collected at five key points throughout the program: Intake (to establish baseline data), Phase 1 (at three months of CTI enrollment), Phase 2 (at six months of CTI enrollment), Phase 3 (nine months of CTI enrollment), and a 12 month follow up (three months after the termination of CTI services). Client data was collected by Case Managers via one-on-one interviews. Interviews were conducted by a CTI Case Manager who was not assigned to the client to reduce the potential for bias and discomfort for clients. As noted earlier, evaluation assessments were intentionally conducted at the ends of the distinct phases of CTI to track the status of women as they transitioned through CTI, while the one-year follow-up was intended to capture change, either positive or negative, three months after the end of CTI to determine if gains were maintained in the short-run.

Due to the decision to change evaluation teams early in the study and subsequent decisions to alter the original evaluation plan and measures, some participant's interviews were conducted too far after the target date (more than 30 days late) to be included in final analyses; in those cases an interview was considered invalid and the data from that interview was not included in analysis. The CTI Domains and Arizona Self-Sufficiency Matrix were completed by CTI Case Managers. CTI Domains were assessed regularly as a part of the case management process. Exhibit A2 provides a summary of the percentage of interviews that were conducted for each time point and the percentage of those interviews that were completed within a tight enough time period to be of use. Participation in evaluation activities is voluntary, so on occasion women declined to participate in the interview. The percentage of women who declined to participate is noted for each time point.

Exhibit A2. Measure completion rates by CTI Phase

Data collection point	Client Interviews (all percentages based on 80 possible)			CTI Domains	Self-Sufficiency Matrix
	% Completed	% Within timeframe	% Declined	% Completed	% Completed
Intake	94%	94%	5%	99%	100%
Phase 1	48%	30%	6%	96%	98%
Phase 2	56%	33%	6%	96%	96%
Phase 3	90%	31%	8%	95%	98%
Follow up	46%	41%	0%	NA	96%

Overall less than 10% of clients declined to participate in interviews at any period. The most common challenge to data collection was completing client assessments within the appropriate 30 day window. Since CTI moves quickly, it was often difficult to capture information, especially during several periods where the program experienced turnover and was down a Case Manager. Intake assessments had the greatest number of valid completes, followed by Phase 3 and Follow up. The least amount of valid data was available for Phase 1 and Phase 2 assessments, so findings utilizing these time points were interpreted cautiously.

Appendix B

Demographic Comparison of CTI Clients at Intake by Housing Site

There were no statistically significant differences among clients from the housing sites included in this evaluation in terms of race/ethnicity, age or marital status.

Exhibit B1. Client Demographic Information by Housing Site at Intake

	DWC Los Angeles Street Home (N=24)		DWC San Pedro Street Home (N=34)		The Ford Hotel (N= 13)		Scattered sites (N=7)	
Race/Ethnicity	African American	54%	African American	53%	African American	73%	African American	57%
	White	8%	White	17%	Hispanic/Latino	9%	White	14%
	Hispanic/Latino	17%	Hispanic/Latino	15%	Other/mixed	9%	Hispanic/Latino	28%
	Other/mixed	17%	Other/mixed	9%	Asian	9%		
	Asian	4%	Asian	6%				
Average Age	51 years		50 years		49 years		47 years	
Marital Status	Never Married	42%	Never Married	67%	Never Married	46%	Never Married	43%
	Divorced	54%	Divorced	31%	Married	9%	Divorced	29%
	Widowed	4%	Widowed	3%	Divorced	36%	Widowed	29%
					Widowed	9%		

There were no significant differences in lifetime housing history among women based on housing location.

Exhibit B2. Housing History by Housing Site at Intake

	DWC Los Angeles Street Home	DWC San Pedro	The Ford	Scattered sites
Mean age at first homeless episode	37 years	42 years	36 years	32 years
% Homeless during 3 months prior to program entry	100%	100%	100%	100%
% Chronically homeless at program entry	100%	100%	100%	100%
Ever in jail	67%	53%	40%	83%
Drug/alcohol program during 3 months prior to program entry	4%	6%	0%	0%
History of mental health diagnosis	100%	100%	100%	100%

Appendix C

Housing Site Characteristics

Exhibit C1. Housing Site Characteristics

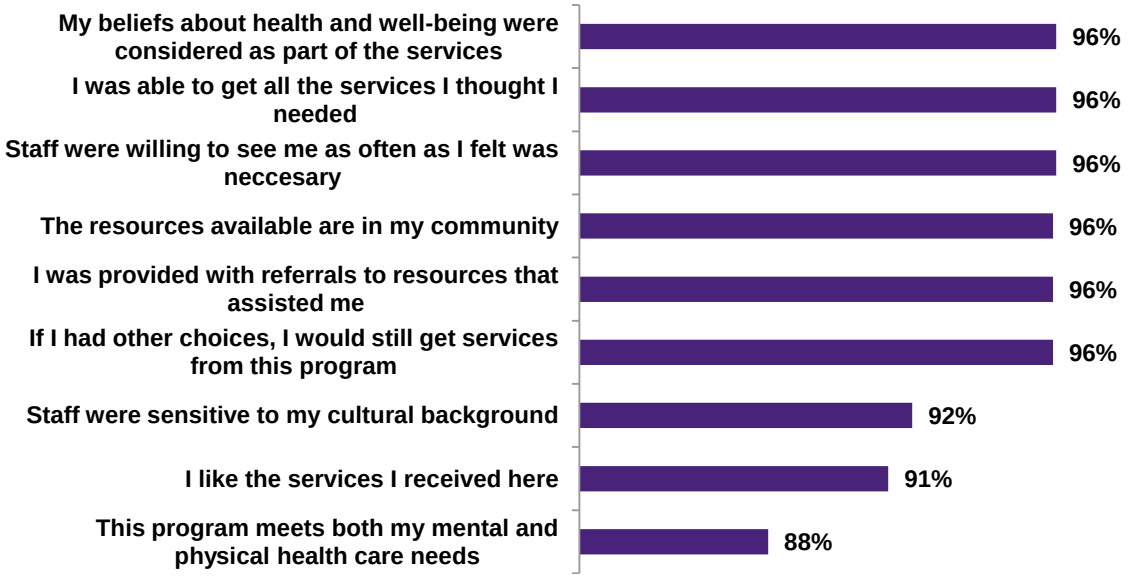
Characteristics	San Pedro Street	The Ford Hotel	Los Angeles Street
# CTI clients	35	14	24
Residence Administration	DWC	SRO Housing Corp	DWC
Resident Characteristics	All women; Mix of (newer) CTI clients and long-term clients	Mixed gender SRO	All women; All chronically homeless
Apartment Characteristics	Private bathroom and kitchen	Private bathroom and kitchen; shared computer room and lounge	Shared bathroom/kitchen
Case Manager Staffing	Case Manager present on-site	Case Manager present on site but accessible to only some clients	Case Manager present on- site
Property Management [17]	1 during regular business hours about half time	1 working 24 hours a day, 7 days a week	1 during regular business hours about half time
Post-CTI Case Manager	1 Case Manager	1 Case Manager	1 Case Manager
Co-location of services	Most services available to CTI clients on-site in DWC Day Center	Located .6 miles from DWC Day Center	Some services provided on site; located .3 miles from DWC Day Center

[17] DWC has one resident manager that works in both Los Angeles Street Home and the San Pedro Street Home location.

Appendix D

Client Satisfaction

Exhibit D1: Percent of CTI Participants Who Agreed/Strongly Agreed with Each Statement at Nine Months (n=24)



Appendix E

Potential Economic Impact Resulting from Downtown Women's Center Implementation of Critical Time Intervention

The Evaluation Team conducted several exploratory analyses to investigate potential economic impacts resulting from Downtown Women' Center's Implementation of Critical Time Intervention (CTI) relative to outcomes of more traditional permanent supportive housing (PSH) approaches. While the evaluation was not specifically designed to support formal cost savings analysis, we used recently published metrics developed for costs related to homelessness and PSH in Los Angeles to create estimates. These estimates can be used to suggest trends and provide direction for future work.

Housing retention and public cost savings

One year after graduation from CTI, 99% of DWC CTI participants were stably housed in permanent supportive housing. In comparison, the Economic Roundtable recently reported that 38% of women living in PSH in Los Angeles Skid Row exited PSH prior to one year.[i]

Table 1. CTI and average PSH housing retention compared

	Retention	Departures
Downtown Women's Center CTI (N=80)	99%	1%
Where We Sleep Analysis PSH (females)	62%	38%

This suggests that DWC may have retained housing for approximately 30 women[ii] via CTI that would not have otherwise remained in PSH at one year. In a follow–up analysis of more than 700 PSH residents who exited tenancy ("leavers"), Economic Roundtable found that about one-half of those who leave PSH do so for negative reasons – this includes disappearing, incarceration, lease violations and non-payment of rent.

Estimates of the public costs incurred by leavers range from $735 per month for all leavers (which includes those who leave for other than negative reasons) to $1,111 for "problem" leavers. This includes costs related to law enforcement, Probation, Los Angeles Homeless Services Authority (LAHSA), General Relief (GR) Housing Vouchers, Los Angeles County Department of Public Social Services (DPSS) Housing Vouchers, DPSS Food Stamps, Paramedics, Public Health, Mental Health, Emergency Room (ER) for private hospitals, ER for Health Services, Health Services outpatient clinic, private hospital inpatient and Health Services inpatient. The highest reported costs are for months spent in homelessness by "problem" leavers (which includes individuals who have serious unresolved mental health, medical and/or substance abuse concerns and leave PSH for negative reasons).[iii]

These costs for leavers were used to estimate possible monthly cost savings attained by CTI for a number of scenarios. Row one of Table 2 utilizes the most conservative estimate of public costs of leavers. It assumes that all 30 women retained by CTI would have "average" public costs of $735 per month and results in an average monthly savings of $7,380. Row two of Table 2 includes public cost estimate for months in which all leavers returned to homelessness. This calculation suggests that CTI results in an average monthly savings in public costs of $15,240. Row three includes a cost-savings estimate assuming all 30 women were "problem" leavers for months spent in homelessness. This estimate results in a cost savings of $18,660. Given the finding that only about one-half of leavers experience negative outcomes, row four includes an estimate assuming that 15 of the 30 women would

have been problem leavers who spend time homeless and 15 women have only "average" public costs. This approach results in an average monthly cost savings of $13,020.

Table 2. Estimates of possible public cost savings of CTI

Assumption	Average monthly cost to public agencies	Average monthly cost to public agencies when housed ($489)	Monthly CTI Savings
Using average monthly cost of all leavers ($735 per month)	$22,050	$14,670	$7,380
During months in homelessness, all leavers ($997 per month)	$29,910	$14,670	$15,240
During months in homelessness, problem leavers ($1,111 per month)	$33,330	$14,670	$18,660
Assuming half of CTI participants are problem leavers and return to homelessness; half do not and incur only "average" costs (15 women at $1,111 and 15 women at $735 per month)	$27,690	$14,670	$13,020

Based on these analyses, CTI is likely to have resulted in an average monthly public cost savings somewhere between $7,380 and $18,660 per month, centered closer to $13,020 per month. Over a six month period, this would range from $44,280 to $111,960; over a twelve month period the saving range from $531,360 to $1,343,520.

Increased income and benefits

Prior research has shown that moving individuals from General Relief to Supplemental Security Income (SSI)/Social Security Disability Insurance (SSDI) increases the pool of subsidies available to provide PSH. Table 3 was reproduced from the Economic Roundtable's *Where We Sleep* report and shows the difference in subsidy for PSH tenants who received General relief versus SSI.

Table 3. Rent and rent subsidies for supportive housing residents[iv]

	Average Monthly Rent	Resident's Average Monthly Rent	Average Monthly Rent Subsidy	Rent Subsidy as a Percent of Monthly Rent
All residents	$499	$138	$361	72%
Residents receiving SSI	$497	$229	$268	54%
Residents receiving General Relief	$497	$61	$436	88%

Source: Skid Row Housing Trust Data for 497 residents

In this particular case, the average monthly subsidy was $168 a month less for PSH residents receiving SSI as compared to resident's receiving General Relief.

Over the course of CTI, DWC was able to assist 35 women to move from General Relief to SSI/SSDI. We calculated an estimated cost-savings of this outcome using current rental subsidy data for DWC's San Pedro Street Residence.

Table 4. Rent and rent subsidies for DWC San Pedro Street supportive housing residents[v]

	Average Monthly Rent	Resident's Average Monthly Rent	Average Monthly Rent Subsidy	Rent Subsidy as a Percent of Monthly Rent
All residents[18]	$970	$236	$734	76%
Residents receiving SSI	$970	$255	$715	74%
Residents receiving General Relief	$970	$58	$912	94%

Source: Downtown Women's Center, July 2014

Given the difference in subsidy required by GR recipients and SSI recipients illustrated in Table 4, this is likely to have resulted in the availability of $197 more in GR rental subsidies per woman who was transitioned per month, or cumulatively, about $6,895 per month. Over the course of 12 months, this may have resulted in a net reduction in rental subsidies of $82,740 – or put differently – DWC's ability to move 35 CTI participants from GR to SSI freed up more than $82,000 of rental subsidies to fund PSH for other individuals.

Additionally, CTI supported 45 women to maintain their SSI/SSDI benefits and 16 women to increase their income via employment (who did not also apply for SSI). Seven women from the San Pedro Street Residence paid an average of $352 a month in rent, receiving subsidy of only 63% compared to the 94% subsidy required by GR recipients. (This includes women who have income from employment as well as one woman who has no income from any source.)

Summary and Future Directions

The post-hoc cost savings analyses of CTI suggest that this intervention has the potential to significantly reduce costs to public agencies via CTI's demonstrated ability to support increased housing retention among chronically homeless individuals in permanent supportive housing. These savings are likely to off-set the increased costs of implementing CTI, which requires relatively lower case loads, highly skilled case managers, and ongoing clinical supervision.

While the current evaluation was limited to assessing stability across the first twelve months of housing, future evaluations that continue to follow CTI clients for longer periods of time would be useful for understanding the longer-term impact of CTI on costs. For example, the Economic Roundtable reported that housing costs for PSH residents typically decrease over time, with costs decreasing significantly following the first four quarters (one year) of tenancy. If CTI is effective at increasing the number of residents who experience tenancy beyond twelve months, where costs of maintaining PSH become considerably lower, there may be an even larger benefit of the approach.

Finally, CTI proved effective at moving formerly homeless individuals from General Relief to SSI/SSDI, which potentially creates a larger pool of rental subsidizes to provide services to more individuals. We

were unable to locate relevant comparison data in order to determine if CTI clients move from General Relief to SSI in greater numbers or more quickly than clients in PSH in general. This evaluation did not, but future evaluations may want to consider these types of comparative analyses to determine if CTI is especially effective in increasing and/or maintaining benefits and income.

[i] Economic Roundtable (2009). *Where We Sleep: Costs when Homeless and Housed in Los Angeles*., p. 39.
[ii] 38%-1%=37% increased retention; 37% of 80 = 29.6; rounded up to 30.
[iii] Economic Roundtable (2009). *Where We Sleep: Costs when Homeless and Housed in Los Angeles*., pp. 42-43.
[iv] Table taken from Economic Roundtable (2009). *Where We Sleep: Costs when Homeless and Housed in Los Angeles*., p. 34.
[v] Table taken from Economic Roundtable (2009). *Where We Sleep: Costs when Homeless and Housed in Los Angeles*., p. 34.