





Project Hi-5

Harris Health System, Harris County, TX

Comprehensive outreach and treatment for people in Houston living with HIV and experiencing homelessness and who face substance use or mental health challenges

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HI-5 AT A GLANCE

Name of organization: Harris Health System

Geographic description: Harris County, TX including the City of Houston

Harris County is located in southeast Texas and encompasses 1,777 square miles. It is the third most populous county in the United States, with an estimated 4.44 million residents (U.S. Census Bureau, 2014). Most residents live within the county's 34 municipalities, with more than two million residents living within the City of Houston, the fourth largest city in the U.S.

Harris County is racially and ethnically diverse. In 2014, Hispanics, African Americans and other minority race/ethnicity groups combined accounted for 68.7% of the total population. Whites made up 31.3% of Harris County residents.

Main challenges: Many services are available in Harris County for people living with HIV, people with substance use or mental health problems, and people who are experiencing homelessness. Prior to Project Hi-5, no programs existed which encompassed all these areas of expertise to provide a true medical home for homeless, HIV positive individuals.

Focus population: People in the greater Houston area who are experiencing homelessness, living with HIV, and with mental health and/or substance use disorders

Description of the model: Based in the Thomas Street Health Center, the HIV clinic operated by Harris County's safety net health care system (Harris Health System), Project Hi-5 provides HIV primary and specialty care as well as mental health and substance use services to multiply diagnosed individuals living with HIV who are experiencing homelessness. Basic HIV care and linkage to other types of services also are provided at the network of clinics for the homeless operated by Harris Health System. These Health Care for the Homeless Program (HCHP) clinics are housed in homeless shelters throughout Harris County.

Medical home model staff: The Hi-5 team augments Thomas Street and HCHP clinical staff capacity with three medical case managers, one of whom serves as supervisor of the project, and two service linkage workers (navigators). Other members of the Hi-5 team include a program manager and data manager.

Clients served: 240

Impact: Health status and housing stability improved for participants in Project Hi-5. Overall, HIV clinic staff gained greater understanding and empathy for patients experiencing homelessness, and Health Care for the Homeless staff gained expertise in providing basic HIV care.

ABOUT THE SPNS INITIATIVE

Building a Medical Home for Multiply Diagnosed HIV-Positive Homeless Populations, 2012-2017

People who are experiencing homelessness are disproportionately affected by HIV, and those who are also living with HIV are more likely to delay entering care, have poorer access to HIV care, and are less likely to adhere to antiretroviral therapy. In 2012, the Health Resources & Services Administration (HRSA), HIV/AIDS Bureau through its Special Programs for National Significance (SPNS) Program* funded a national initiative with the goal of building a medical home for a vastly underserved population: those who are experiencing homelessness or unstable housing, living with HIV, and who face challenges of mental health or substance use disorders. Nine clinic and community-based organizations and one multisite coordinating center were funded to implement and evaluate service delivery models for this population. The two main goals of the models were to 1) increase engagement and retention in HIV care and treatment; and 2) improve housing stability. While each model was tailored to the environment in which it existed and the needs of the specific population served, the nine models all created a role of care coordinator/patient navigator who worked with clients to access a networked system of services among HIV, housing, and behavioral health care providers. To measure achievement of project goals, the nine programs are conducting a longitudinal multisite evaluation study of the models.

Harris Health System was one of the nine demonstration sites funded under this initiative. This manual describes their experience implementing and evaluating Project Hi-5.

For more information about the initiative, visit http://cahpp.org/project/medheart/

^{*}The Special Projects of National Significance (SPNS) Program is charged with the development of innovative models of HIV treatment, in order to quickly respond to emerging needs of clients served by Ryan White HIV/AIDS Programs. SPNS advances knowledge and skills in the delivery of health and support services to underserved populations diagnosed with HIV. Through demonstration projects such as the initiative that gave rise to the Hi-5 Project, SPNS evaluates the design, implementation, utilization, cost, and health-related outcomes of treatment models, while promoting dissemination and replication of successful interventions. Learn more at https://hab.hrsa.gov/about-ryan-white-hivaids-program/part-f-special-projects-national-significance-spns-program



The individual pictured here is now in a single-room occupancy housing program. His health is much better.

INTRODUCTION

Challenges Faced in Houston and Harris County

Although excellent HIV health care is available in Harris County, prior to Project Hi-5 there were no services focused specifically on individuals experiencing homelessness and living with HIV. It was estimated that, as a result, there was a low rate of diagnosis and linkage to care for this population.

About Project Hi-5

Project Hi-5 is based on a comprehensive outreach/ treatment (COT) model of care for engaging and treating hard-to-reach populations where patients are assessed and treated for a variety of conditions and then offered continued on-site evaluation and treatment.¹ Off-site follow-up is necessarily more focused and considered.^{2,3} Our aim is to provide HIV care to patients experiencing homelessness wherever they prefer to receive care and to integrate all facets of their health care, including substance use treatment, mental health services, and assistance in achieving housing stability.

Originally, Project Hi-5 was designed to offer a full range of HIV care to patients who are experiencing homelessness at the multiple shelter-based clinics operated by Health Care for the Homeless Program (HCHP), as well as at Thomas Street. This approach was based on the belief that patients would be more comfortable accessing HIV care at locations where they were familiar with receiving basic health care. In reality, patients have overwhelmingly preferred to receive their HIV care at Thomas Street. Providers and nursing staff

¹Milio N. (1976) A framework for prevention: changing health-damaging to health-generating life patterns. Am J Public Health. 66(5):435-9.

²Nuttbrock et al Nuttbrock L, McQuistion H, Rosenblum A, Magura S. (2003) Broadening perspectives on mobile medical outreach to homeless people. J Health Care Poor Underserved. 14(1):5-16.

³Marlatt G Marlatt GA, Tucker JA, Donovan DM, Vuchinich RE. (1997) Help-seeking by substance abusers: the role of harm reduction and behavioral-economic approaches to facilitate treatment entry and retention. NIDA Res Monogr. 165:44-84.

of the HCHP clinics were trained as part of Project Hi-5 to provide basic HIV care, which has helped them to be more comfortable working with their patients who are experiencing homelessness and living with HIV. However, likely due to challenges with obtaining HIV medications at the shelter-based clinics combined with the ready availability of many HIV-specific support services at Thomas Street, most patients experiencing homelessness and livinst with HIV have opted to receive their HIV care at Thomas Street.

About Harris Health System

Harris Health System is the nation's fourth largest public health care system. It is the safety net health care provider for Harris County, Texas, and includes 23 community health centers, five school-based clinics, a dental center and dialysis center, mobile health units, a rehabilitation and specialty hospital, and two full-service hospitals (Ben Taub General Hospital [BTGH] and LBJ General Hospital [LBJ]). Additionally, Harris Health operates a multisite HIV services program based at the Thomas Street Health Center (TSHC) with a satellite clinic at our Northwest



Harris Health's Thomas Street Health Center is the largest publicly funded HIV clinic in the nation. While the original approach was to offer a full range of HIV care to patients experiencing homelessness at multiple shelter-based clinics, patients have overwhelmingly preferred to receive their HIV care at Thomas Street.

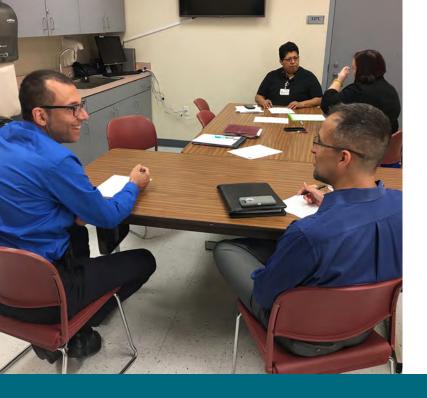
Community Health Center (NWCHC) and a Health Care for the Homeless Program, which operates in homeless shelters and mobile vans throughout the county.

In 2011, Harris Health's Health Care for the Homeless Program (HCHP) provided care to 6,049 of Houston's 13,000 patients experiencing homelessness at 11 shelter-based clinics and 33 outreach sites served by two mobile vans. In 2015, HCHP received Medical Home certification from the National Committee for Quality Assurance (NCQA). HCHP currently offers HIV testing and basic HIV care. HCHP staffs its shelter-based clinics with teams of a nurse practitioner (NP) and a licensed vocational nurse (LVN) or medical assistant (MA). A health educator, a licensed social worker, a nurse case manager, and a behavioral therapist rotate through the multiple clinics. The NPs are supervised by contracted physicians. A parttime physician provides medical services twice a week at one of the sites. A .4 FTE psychiatrist provides services at some of the clinics and receives referrals from the others. The medical team is supervised by the HCHP medical director. A 0.8 FTE dentist and two dental assistants provide dental services on a dental mobile unit. A 0.9 FTE podiatrist provides services at some of the sites. Pharmacy staff maintains Class D pharmacies at each location, which stock limited supplies of commonly prescribed medications. HIV medications are not allowed to be included in Class D pharmacies. Substance use treatment (excluding suboxone) and counseling are available through contractual agreements with other external agencies that are located in the Houston area.

Harris Health's Thomas Street Health Center (TSHC) is the largest publicly funded HIV clinic in Houston and in the nation. It provides primary HIV and specialty care for more than 6,000 patients living with HIV. Of these,

Originally, Project Hi-5 was intended to offer HIV care at primary health care clinics based in homeless shelters, as well as at Thomas Street, based on the theory that patients would prefer to receive HIV care at locations where they were familiar with receiving routine health care. However, these patients opted overwhelmingly to receive HIV care at Thomas Street.

approximately three percent are experiencing homelessness. The largest single portion of Harris County's HIV/AIDS patients is treated at TSHC. TSHC offers several specialty programs onsite including HIV case management, specialty care for women, peer-facilitated support groups, weekly Cocaine Anonymous meetings, and an adolescent/young adult clinic and support group. Mental health services are also available at the clinic. As a result of needs identified by Project Hi-5 staff at Thomas Street, a therapist from HCHP is now available at TSHC one day per week to meet specifically with patients experiencing homelessness. We also have onsite a Licensed Chemical Dependency Counselor (LCDC) who provides substance use counseling. An onsite pharmacy dispenses more than 600 prescriptions daily, including medications provided by AIDS Drug Assistance Program (ADAP). HIV primary care and OB/GYN care for pregnant females who are living with HIV also are available at a satellite site, Northwest Health Center (NWHC), which is one of Harris Health System's community clinics.



SETTING UP THE MEDICAL HOME MODEL

At TSHC, which achieved NCQA Medical Home status for HIV care in 2011, patients receive a full range of primary care, specialty, and supporting services. This continuum begins with Project RUSH, a routine HIV testing program funded by the CDC via the City of Houston Department of Health and Human Services. This program offers routine HIV testing in all Harris Health System emergency centers, community health centers, and HCHP clinic sites. Once identified through testing, case finding, referral, or other means, patients then receive expert HIV primary care at either TSHC or a satellite HIV clinic operated by Harris Health at its Northwest Community Health Center (NW).

Physicians at TSHC are all faculty or residents affiliated with Houston's two medical schools – Baylor College of Medicine and UT-Houston Health Science Center -- and participate in many NIH and pharmaceutical sponsored clinical trials. TSHC is a Local Provider Site for the Texas/Oklahoma Regional AIDS Education and Training Center (AETC).

Harris Health prepared for Hi-5 staff to work with all its homeless shelter-based clinics to provide services for clients who are experiencing homelessness and living with HIV. These shelters include: Harmony House, a residential facility with limited respite beds and a walk-in clinic and the Lord of the Streets center, an open-access clinic where any person experiencing homelessness can receive care. Staff and providers at all facilities were trained to provide care to patients experiencing homelessness and living with HIV and work with TSHC physicians to manage HIV-related issues. (See sidebar on the next page.)

Developing Partnerships

At the onset of the project, the Hi-5 team identified all internal and external stakeholders and informed them about the new model. Key partners at the onset of the project were Houston Healthcare for the Homeless (HHH), Houston Police Department, and the Salvation Army. HHH is a non-profit organization not formally affiliated with Harris Health System. At the time Project Hi-5 began, HHH was housed in a multiservice homeless day program in the downtown area where Harris Health also operated a free on-request HIV testing program. This co-location of HHH and Harris

Learning to Speak Each Other's Language

The Thomas Street Health Clinic had medical staff who were very familiar with working with patients with HIV. The Health Care for the Homeless Program comprised medical staff who were well-versed in working with people who are experiencing homelessness. Working with high-acuity clients who were both experiencing homelessness and living with HIV required the team to be skilled in both areas. So Hi-5 staff organized a series of trainings.

Thomas Street Health Clinic is a local provider site for the regional AIDS Education and Training Center (AETC); the team worked with the AETC coordinator to develop an HIV 101 curriculum for HCHP staff. Trainings in working with homeless populations for HIV care providers were led by Thomas Street's medical director. These trainings included a program overview and steps to follow when clients identified as HIV-positive were encountered by HCHP staff at one of the shelter-based clinics. The trainings included an overview of HIV, HIV treatment, and how to manage a patient living with HIV at the homeless shelter. Copies of the presentations and learning materials for the trainings on HIV treatment are included in the *Resources* section.

Health System's HIV testing program facilitated referrals and collaboration in locating and managing clients. HHH has recently moved to its own building.

Several existing informal partnerships with local homeless programs were in place prior to Project Hi-5. These partners included shelters, health care providers, housing agencies, transportation services, substance use treatment programs, and mental health agencies.

Our case management staff established new partnerships once Project Hi-5 was launched. These partnerships were developed based on the needs of the program and

included: the Salvation Army to provide emergency beds for clients experiencing homelessness, the Beacon day homeless shelter to facilitate HIV-testing among individuals experiencing homelessness and facilitate communication with existing clients outside of the clinic, Houston Coalition for the Homeless, Houston Healthcare for the Homeless for bus transportation, Houston Food Bank for food stamp enrollment, Houston Police Department Homeless Outreach Team (HOT) for temporary IDs, and Watch Over Me for journals and watches. Even though housing vouchers are not used in Texas, we worked with HOPWA to secure other types of housing assistance for clients.

The senior case manager for Project Hi-5 led efforts to inform and partner with stakeholders. Through his efforts, the Hi-5 program was able to partner with several agencies to provide needed services for our clients. Examples of these services include securing a guaranteed same-day emergency bed at the Salvation Army's Harbor available for those in need of immediate housing and the Salvation Army's Sally's House, a residential and substance use recovery program for women.



By partnering with the Salvation Army, Hi-5 staff was able to secure a guaranteed same-day emergency bed for those in need of immediate housing.

Funding Care for Hi-5 Clients

In addition to the grant money provided as part of the HRSA-funded medical home initiative, Harris Health System utilizes funds from several sources to provide primary care and other supporting services to Hi-5 patients and to supplement salaries of several staff members whose primary roles are with the SPNS project. Other funding for these salaries and fringe benefits totals \$189,750.

- Part A provides primary and specialty care at TSHC and NWHC and pays for .8 FTE of the 3 SPNS medical casemanagement positions (\$64,632) and 0.95 FTE of the two SPNS service linkage worker (SLW) positions (\$42,540)
- Part C provides 0.08 FTE of a SLW position (\$4,108)
- CDC Expanded Testing funds 0.95 FTE of the two SPNS SLW positions (\$47,396) and 30% of the data manager's salary (\$31,072)

Being able to use these other funding sources not only extends the capacity of the SPNS project, but enables us to more effectively integrate all the services our clinic provides. For instance, by using Part C funds to pay for a portion of a SLW's time, that individual is able to offer HIV testing at a multi-purpose homeless day center.

Because all our SPNS MCM and SLW staff are paid partially by Part A, they are able to bill Part A for time spent providing services to patients experiencing homelessness who are not enrolled in the SPNS study. Since the beginning of the SPNS project, we have provided monthly reports to the Ryan White Planning Council outlining progress of the study. We have also participated in their annual service planning activities. Through this ongoing education, we are working toward sustained targeted funding to support case management and service linkage for patients experiencing homelessness and living with HIV. Likewise with Part C and the CDC expanded testing funds, we plan to continue incorporating service linkage for the individuals experiencing homelessness into these grants.

Recruiting and Hiring Hi-5 Staff

Recruitment for Hi-5 positions was coordinated through the Harris Health System Human Resources Department. Initially the SPNS project manager was responsible for hiring the coordinator, who serves as the lead medical case manager (MCM) and who recruited and hired the additional case managers and service linkage staff. All case managers are Licensed Master Social Workers. Service linkage workers are required to have a college degree or experience working with HIV-positive clients. Prior experience working with homeless populations is preferred. Applicants with these qualifications were interviewed and hired through Harris Health System. The project manager and data manager were already employed by Harris Health System at the time the SPNS funds were awarded.

Our department maintains a policy of requiring all position descriptions to conform to Ryan White Part A personnel standards (at a minimum), regardless of funding source. This enables us to utilize different funding sources during the course of a year, if necessary, without concerns of possibly failing to meet any training or certification standards.

A policy of requiring all position descriptions to conform to Ryan White Part A Standards of Care enables us to utilize several funding sources without failing to meet any training or certification standards.

Our project coordinator has established a practice of recruiting social work interns from the University of Houston, which has contributed significantly to our capacity to extend services to the largest number of patients experiencing homelessness possible. We have typically had at least two interns assigned to our program at any given time.

Training Hi-5 Staff

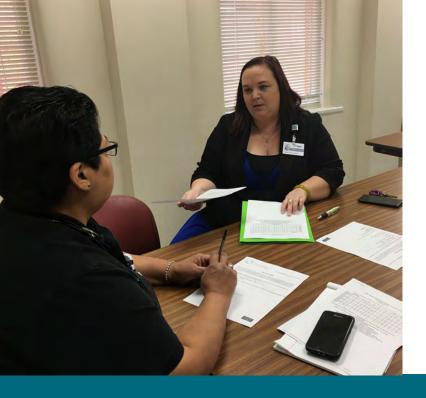
Upon hiring, case managers and service linkage workers participated in the Satori Alternatives for Managing Aggressive Behavior (SAMA) as well as on-the-job training. There is no specific requirement for the number of hours of training, and it varied based on experience. Frontline staff also took advantage of a series of online webinars and training sessions coordinated by Boston University. Staff from Boston Health Care for the Homeless presented a series of webinars on topics related to working with clients to secure and maintain housing. Boston University enlisted the Center for Social Innovation's t3 training division (http://us.thinkt3.com/ courses-offerings/Live-Online-Courses) to present several live specialized online courses on topics including motivational interviewing, tenancy support in the context of housing first, managing substance use, trauma informed care, and a harm reduction approach to client-centered behavior change. These topics are especially useful for delivering services to the Hi-5 program.

In addition, the HCHP staff is required to attend monthly meetings where they receive ongoing training on a variety of topics including substance use and motivational interviewing. The training is provided by a Baylor College of Medicine Clinician. Several clinical trainings were conducted for Harris Health staff and providers at TSHC and HCHP sites prior to implementation of the intervention. (See sidebar on pg. 10.)

A number of preceptorships were held where HCHP nurse practitioners shadowed Thomas Street physicians for a half day to learn more about working with the people served by the Hi-5 program.

Supervising Hi-5 Staff

The medical director at the Thomas Street Health Center is responsible for overseeing Baylor College of Medicine evaluation activities and all aspects of Project Hi-5 related to clinical care at TSHC. The medical director for Healthcare for the Homeless is responsible for overseeing all HCHP clinical activities throughout the HCHP shelter-based clinics. The program manager provides administrative oversight for Project Hi5, including supervision of the project coordinator (also the senior case manager) and data manager. The project coordinator is responsible for overseeing the Hi-5 case managers and service linkage workers at TSHC. He meets with Hi-5 case managers and service linkage workers weekly to discuss client issues as well as providing direct clinical supervision to staff. The Hi-5 case managers and SLWs meet on Monday mornings for administrative supervision. On Tuesdays, the entire Hi-5 clinical and research team meets, and on Fridays all Hi-5 medical case managers meet to discuss patients and their care. SLWs receive one hour of individual supervision from MCMs monthly: MCMs receive one hour of individual supervision from the Hi-5 supervisor monthly.



RECRUITING CLIENTS INTO PROJECT HI-5

Screening Procedures

All clients experiencing homelessness who are identified by Thomas Street staff as potentially eligible for the project were referred to Hi-5 case managers and service linkage workers to be screened for Project Hi-5. The initial screening assesses both substance use and mental health. The substance use assessment tool collects information on: frequency and duration of alcohol use, frequency and duration of non-prescription drug use, abuse of prescription drugs, perceived need for substance use treatment, and presence of depression/anxiety/posttraumatic stress disorder.

Clients who screened positive for substance use are referred for substance use treatment. The mental health assessment tool collects information on levels of depression, anxiety, and other mental health disorders. Clients who screen positive for mental health disorders are referred for a psychiatric evaluation. The screening instruments used for this program are included in the *Resources* section. We track the number of clients referred to our program who are screened using our dashboard summary report as described below in the *Evaluation and Quality Improvement* section.

Program Eligibility and Enrollment

To be enrolled in Project Hi-5, clients had to be:

- 1) 18 years or older
- 2) Living with HIV
- 3) Experiencing homelessness or unstable housing, and defined as one of the following:
- a) Literally homeless: an individual who lacks a fixed, regular, and adequate nighttime residence
- b) Unstably housed individual who:
 - Has not had a lease, ownership interest, or occupancy agreement in permanent and stable housing with appropriate utilities (e.g. running water, electricity) in the last 60 days; OR
 - Has experienced persistent housing instability as measured by two moves or more during the preceding 60 days; AND
 - Can be expected to continue in such status for an extended period of time.
- c) Individual fleeing domestic violence who:
 - Is fleeing, or attempting to flee, domestic violence;
 - Has no other residence: and
 - Lacks the resources or support networks to obtain other permanent housing.

- 4) Multiply Diagnosed: An individual living with HIV who has been screened by Harris Health System clinic staff and determined to need treatment services for one or more of the following co-occurring illnesses:
 - Mental Illness: Defined as any illness that significantly interferes with the performance of major life activities, such as learning, working and communicating, including, but not limited to: anxiety disorders such as post-traumatic stress disorder; and mood disorders such as major depression, bipolar disorder and dysthymia.
 - Substance Use: Defined as any use of illicit drugs or the abuse of alcohol, prescription or over-the-counter drugs for purposes other than those for which they are indicated or in a manner or in quantities other than directed by a prescribing health care provider.

Handling Referrals to the Program

Our program receives referrals from TSHC providers, the TSHC walk-in clinic, Houston Health Care for the Homeless (HHH), HCHP, Harris Health System hospitals, and other local hospitals. We also receive referrals from local agencies that provide services to people experiencing homelessness. In addition, we review out-of-care patient lists at TSHC to identify clients who are experiencing homelessness who may have an upcoming appointment or who show up at clinic, and make a priority of meeting with them if and when they arrive.

In addition, the Houston Homeless Outreach Team (HOT) of the Houston Police Department frequently contacts our program with new cases. When the Houston HOT identifies a client experiencing homelessness and living with HIV who is in need, they immediately contact our Hi-5 case management team and provide a location where the Hi-5 service linkage worker could meet the client to begin service delivery.

We also actively identify street dwelling persons through outreach efforts. Our staff accompanies SEARCH, a local non-profit homeless program, at least monthly to find people who are on the street, HIV positive, and out of care. SEARCH also assists our program with housing referrals as needed. We have a service linkage worker

available at the Beacon (a day shelter) one day per week to conduct HIV testing and provide on-site assistance to clients who are experiencing homelessness and living with HIV.

Internal referrals come in primarily via the EMR, e-mail, or by telephone. Requests from external agencies as well as internal TSHC staff come directly to the homeless case management staff. Follow-up on referrals can occur in person or by telephone. All interactions are documented in the EMR.

Managing the Flow of Participants

Managing the flow of clients experiencing homelessness can be challenging. Often clients arrive at the clinic without an appointment, or multiple clients arrive at the same time for services. Communication among intervention staff is essential. The *Resources* section includes a flow chart detailing how patients are identified, recruited, and move through the Hi-5 program.

When a client who is experiencing homelessness enters the clinic, especially in cases where there is no scheduled appointment, the front desk staff has been instructed to notify the Hi-5 case management team and provide

Often the clients arrive at the clinic without an appointment, or multiple clients arrive at the same time for services. All front desk staff have participated in clinic-wide training on the procedure to follow when a client experiencing homelessness enters the clinic.

them with the location of the client. All front desk staff have participated in a clinic-wide training on the procedure to follow when a client experiencing homelessness enters the clinic. Phone numbers for Hi-5 case managers and service linkage workers (SLW) are posted at the front desk for easy access.

The SLW then locates the client in the clinic, checks in with them about their status, and determines the purpose of their visit, if unscheduled. The SLW is the first person from the Hi-5 team to meet with the client. The SLW determines whether the client needs information only or medical case management. If medical case management is needed, the SLW communicates the client's needs to the senior case manager, who assigns cases to a medical case manager (MCM) based on several criteria, including age, gender, ethnicity, and need for substance use and/ or mental health treatment. A direct handoff is made between the SLW and the MCM; however, the SLW continues to be available as needed to support the MCM and client. The client's MCM then works with him or her on resolving any acute issues and follows up on the goals listed in the case management plan. Once the client is handed off to the MCM, the SLW is then available to meet with other clients experiencing homelessness who enter the clinic. If other clients experiencing homelessness arrive at the clinic and their case manager is with another client, the SLW waits with them until a direct handoff can be made with their MCM.



SERVICE DELIVERY MODEL

Services Provided

All Project Hi-5 services are available through the Harris Health System, including primary and specialty HIV care, case management, behavioral health, and substance use treatment. Behavioral health providers are available at TSHC as well as by referral. Mental health providers who are part of the HCHP staff are available to meet with clients experiencing homelessness at external locations. Clients also may be referred to various external providers. Psychiatry services are available at TSHC. Communication occurs between staff primarily via the EMR, however e-mail and telephone contact is also used. We tracked the total number of clients who received various services offered by our program using our Dashboard tracking system described in the *Evaluation and Quality Improvement* section.

The duration of program participation varies by client need. Clients are eligible for program services until the client is determined to be engaged in HIV care by the case management team, and all primary goals have been met. Clients can always re-enter the program if acute issues arise. The *Resources* section includes a flow chart detailing how clients are identified, recruited, and move through Project Hi-5, including transition to standard care.

Staff Activities

The Hi-5 medical case managers and service linkage workers are involved in all aspects of client management, from the initial assessment, referral for enrollment in the Hi-5 program, setting up a housing and care plan, accompanying clients to provider visits, and long-term follow-up. Patients' situations are unique and require varying numbers of visits. The level of health care management needed is assessed when the patient is initially enrolled in the Hi-5 program and at follow-up visits. The Substance Abuse and Mental Illness Symptoms Screener (SAMISS) used to assess the patient's acuity is included in the *Resources* section.

A health care plan, including patient goals, is developed jointly by the MCM and patient at the initial assessment. This visit takes approximately 60 minutes.

Initially, Hi-5 staff meets with clients weekly to address immediate needs and determine a timeline for meeting goals established at the initial assessment. The client service plan form used in this process, which is contained in the EMR, is included in the *Resources* section.

Subsequent visits depend on patient needs as well as whether visits occur in the clinic, shelter, or public location. Typically, fewer visits are conducted outside of the clinic setting due primarily to logistical issues, including the policy to send Hi-5 staff in pairs for safety reasons.

The MCM worked with the client to determine housing needs and develop a plan. SLWs supported housing efforts by helping clients with logistics such as completion of housing applications and making arrangements for moving.

Transitioning to Standard Care

Hi-5 staff continue to work with the client until all goals are met and their HIV is managed. The duration of this process varies among clients. The MCM assesses the client's progress toward meeting the agreed-upon goals at each encounter. Once the goals are met, clients may graduate from the intervention and medical case management will be closed.



One of our patients was living in the car at the back of this driveway. He is now housed.

When clients are stably housed, their unmet needs have been addressed, their HIV is well controlled, and all other goals are met, they become eligible to graduate from the program. Stably housed is defined as a client obtaining a lease for an apartment or being enrolled in a residential substance use program. No formal acuity tool is used for this assessment; the Hi-5 medical and case management team determines when the client meets the requirements for graduation from the program. The duration of this process is variable among patients. After being followed by the Hi-5 team for a 90-day probationary period following completion of the program, if the patient is stable, their case will be closed and they will graduate from the Hi-5 program. If acute issues arise or if their HIV-infection becomes uncontrolled after they have graduated, they can return to the HI-5 program for additional support.

Tangible Reinforcements

Depending on a client's needs, Hi-5 staff may provide material items that support their health These items include snacks, journals, watches, prepaid cell phones, emergency bus passes, transportation (taxi), bed at an emergency shelter, hygiene kits and, as available, clothing. Phones are available to clients through the Federal "Lifeline" Cell Phone program (http://www.lifelinesupport.org/ls/). Hi-5 staff will help clients complete the application for this program.

Communication among Program Staff

Project Hi-5 staff meet weekly to discuss new clients and unresolved client issues. On alternate weeks, a larger SPNS clinical staff meeting is held with HIV and behavioral health providers to discuss ongoing client issues. All TSHC case managers, service linkage workers, data manager, and project manager also meet monthly to communicate about general operational issues at TSHC. In addition, regular meetings are held with our HIV Services hospital-based HIV service linkage workers and the inpatient Infectious Disease Team to review HIV patients and assist with linkage to care. Hi-5 staff can communicate with clinicians either directly, by phone or

email, or via the EMR.

Harris Health System utilizes the EPIC Electronic Medical Record system throughout the organization. This enables physicians, case managers, and any other clinical staff involved to have immediate access to progress notes, lab test results, etc. for all clients. However, services that occur outside of Harris Health System are not captured. All Harris Health System clinical staff, including SLWs, can access EPIC.

Communication with the Community

Partnerships are maintained by continued communication between Project Hi-5 staff and key personnel at local service agencies. External communication about clients occurs primarily by telephone or e-mail. Information about upcoming meetings is communicated via e-mail. Communication with both internal and external partners is documented in the EMR.

Participation by the Hi-5 project manager and coordinator on several Ryan White Planning Council committees has enabled us to share information on the needs of patients who are experiencing homelessness and living with HIV and to encourage funding of additional resources for this population.

Documentation

All patient information is documented in the EMR. All patient interactions with clinic staff, including phone calls and in-person meetings, are recorded in the EMR. Care plans, patient goals, and case notes are also documented in the EMR. SPNS MCM and SLW staff can access patient care plans. Information about the encounter is recorded in the EMR immediately following contact.

The Harris Health System EMR is an Epic product. It is accessible through a secure internet connection on any computer. Researchers can review discharge summaries,

laboratory results, appointment schedules, and clinic progress notes. Mental health diagnoses are captured from the EMR and were abstracted under the guidance of the Thomas Street Health Center medical director. The EMR is the primary source of data for the TSHC and HCHP databases, described below. All databases are easily linkable by medical record number.

TSHC also has an HIV Services Database that consists of a suite of proprietary MS Access data tables and applications that both draw information from the Harris Health main computer data and accept direct input for data that does not exist in the mainframe computers, such as whether a patient new to the clinic is naïve to antiretroviral therapy. The database contains appointment, laboratory, pharmacy, and radiology data on all patients seen at TSHC or one of its satellite outpatient HIV clinics from March 2002 until the present. Data on clinic visits include date of visit and resource code (HIV primary care, obstetrics, gynecology, psychiatry, substance use counselor, etc.), and whether the visit was kept, missed, cancelled, or rescheduled. Dates of hospitalization at the two Harris Health public hospitals are also included. The database is on a secure server at TSHC housed in a locked data closet, and all data are backed up to a remote site every evening.

Success = More Than Viral Suppression

Dexter had been keeping his appointments at Thomas Street and regularly taking his medications, but he was constantly living on the brink of catastrophe when he came to the attention of Project Hi5.

After more than 20 years of incarceration, Dexter was released in 2011 and began receiving HIV medical care at Thomas Street. He was living in a halfway house for sexual offenders, and the agency regularly transported him to the clinic for his medical appointments and to pick up his medications. Although he is legally blind, developmentally delayed, and has severely impaired hearing, Dexter managed to adhere to his medication regimen and keep his viral load controlled. Because he was virally suppressed and did not fit the criteria for being assigned a case manager, he had not received help in obtaining other support services.

Once the Hi5 staff learned about him, they went to work on his behalf. They learned that the attorney who had been assigned to seek Social Security benefits for Dexter had not pursued his case, so Hi5 found another attorney who would do so. But, when Dexter finally went to court for his disability hearing, the judge became so frustrated that Dexter could not hear him in order to respond to his questions that he ordered him to leave and not come back until he could hear. With no income, obtaining a hearing aid seemed impossible, but Hi5 staff found a private donor who purchased an inexpensive, generic hearing aid for Dexter. Once he received his social security benefits, he was able to pay the co-pay to receive a custom-fitted pair. After Dexter was awarded social security benefits – the first time in many years he had income of his own --Hi5 arranged for Harris County to appoint a "payee" to manage these funds on his behalf.

Just when things seemed to be looking up for Dexter, he left the halfway house without permission, a parole violation which resulted in a warrant Just when things seemed to be looking up for Dexter, he left the halfway house without permission, a parole violation which resulted in a warrant being issued for his arrest.

being issued for his arrest. Once the Hi5 staff located him, they learned the reason he had left was because he was being sexually abused by other residents. Our Hi-5 case managers explained to Dexter that he would have to resolve the warrant, but they would help him through the process of turning himself in to law enforcement.....and then help him to be released from jail. Dexter trusted the Hi5 case managers throughout this process, and eventually they were able to place him in a personal care home where he is well cared for and safe. He was managing so well that he "graduated" from the Hi5 case management program.

Several months later, Dexter was involved in a serious accident resulting in a compound fracture of his leg. Even though he had "graduated" from Project Hi5, he reached out to his former case manager when he was hospitalized. The Hi5 staff made sure he received inpatient physical therapy following his hospital stay and then was able to move back into the personal care home.

Dexter's viral load is still under control. He also keeps up with his hearing aids and has money of his own to pay a modest fee for rent at the personal care home. And he still keeps in touch with his Hi5 case manager, even though he has "graduated" once again.



Hi5 in Action: Building a "Human Experience" Gets David Back on Track

The intensive case management services provided in the Hi5 program can mean the difference between victory and defeat for clients. Take David, for example. After years on the streets, addicted and without HIV treatment, he was finally starting to turn his life around. But the sheer number of challenges he was dealing with and the complexity of the health care system started to overwhelm him. He had several appointments scheduled and was committed to keeping them. But then, he lost the urine specimen container that was needed for a lab test prior to his physician appointment and couldn't get through on the phone to reschedule. In frustration, he deleted all his appointments and sat, upset, in the Thomas Street clinic pharmacy waiting area.

That's where Kristina, his medical case manager, found him. Because she had taken the time to build a relationship with David, she could see that he was frazzled and approached him to learn what was wrong. She took the time to listen to David's concerns, not the least of which was that he had

no access to a phone to schedule appointments, or check on referrals or medications. She helped him to schedule the care and obtain the medications he needed and broke down a seemingly tangled set of complex, sometimes contradictory, instructions into smaller steps he could follow.

"If you're living on the streets, you don't know where you're going to get your next meal...your next shower, you have to run by the rules of all these shelters and their different time commitments, it can be overwhelming," explained Kristin. "It's hard to think on the next level when you're trying to take care of your basic needs."

Her expression of caring cut through the fog of David's frustration. "I wanted to give up on treatment and just not deal with any of it, and then I remember Kristina. She was really concerned about getting me on track," said David. "Knowing that someone cared that much about me taking care of myself encouraged me to press through everything and accept the help she was giving and take care of myself. It was like a hand reached out for me and all I had to do was grab on and everything just kind of took off."

The Hi-5 program works with a population that often gets overlooked, who are often judged and stigmatized. Focusing on the person at the center of the medical treatments, shelter rules, and other services needed to meet basic needs allows for a "human experience," as Kristina calls it. David calls it something else: hope.

"It gave me the inspiration to trudge whatever road I had to face. There are still days that I want to give up. I know that I can call and say, this is where I'm at—what can we do? It gives me hope."

To hear more of David's experience, watch the Hi-5 video at https://youtu.be/Ku4VD8b9a_E



EVALUATION AND QUALITY IMPROVEMENTS

A summary of clients enrolled in the program was reviewed weekly. A dashboard summary report was created in Excel to track demographics, use of program services, referrals for substance use and mental health treatment, and improvement in study outcomes for clients enrolled in the program. Service use is calculated by dividing the number of clients who obtained the service by the total number of clients who requested the service. Outcomes were: housing status, HIV primary care visit in 6 months following enrollment, and viral load (VL) suppression at 12 months. Housing score is categorized using a scale from 0 (permanent housing) through 6 (street homeless) and is assessed at each client encounter. VL suppression is defined as VL less than 200.

Hi-5 staff reviewed this report at weekly meetings to monitor both enrollment and utilization of various services, as well as outcomes. As questions arose from the data, service linkage and case management staff were able to provide anecdotal information helpful to physicians in understanding barriers encountered by patients. Being able to see quantified data on improved housing status, engagement in care, and viral suppression was a valuable motivator for all staff.

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Another process for quality improvement is the Patient Advisory Council. TSHC has a standing Patient Advisory Council that meets regularly to discuss patient issues and provides input on improving the delivery of HIV care for all patients, including those who are experiencing homelessness.

SPNS - Building a Medical Home for Multiply Diagnosed Homeless HIV Patients

			#	%
LS		Approached	91	N/A
EN.		Eligible	78	86%
ALL PATIENTS		Enrolled	65	83%
L P		Deactivated (deceased/withdrawn/etc.)	0	0%
A		Active Enrolled	65	100%
	ER	Female	15	23%
	GENDER	Male	50	77%
	ЭE	Transgender	0	0%
		Asian	0	0%
		Black or African-American	46	71%
	RACE	Native American	0	0%
	RA	White	18	28%
		Biracial/Multiracial	1	2%
		Other/Unknown	0	0%
TS	Н.	Hispanic/Latino	6	9%
IEN	ETH	Not Hispanic/Latino	59	91%
ERNOLLED PATIENTS	CE	Harris Health Ambulatory Care	2	3%
DP		Harris Health emergency Center	1	2%
Ę		Harris Health In-Patient	2	3%
2	SOURCE	Health Care for the Homeless Program	5	8%
ER	SO	Outside Referral	9	14%
		Out of Care Thomas Street Clinic Patient	43	66%
		Walk In	3	5%
	ng	Literally Homeless	44	68%
	Housing	Unstably Housed	21	32%
	Н	Fleeing Domestic Violence	0	0%
	_	New Diagnosis	2	3%
	eris	New to Harris Health	7	11%
	Criteria	Out-of-Care (>=6 months)	49	75%
		Detectable Viral Load (>1000 Copies/ml)	7	11%

Services Provided After Enrollment			
	#	%	
Housing Referral	21	32%	
Cell Phone Application	2	3%	
Peer Mentoring	0	0%	
Medication Delivery	0	0%	
Mental Health Referral	8	12%	
Substance Abuse Referral	14	22%	
HIV Care at Shelter	1	2%	
THID visit	40	62%	

_		
	At enrollment	Most Recent
Mean Housing Score (lower is	4.2	3.2
better)		
Engaged In Care (HIV PCP Visit in	14 (22%)	36 (55%)
past 6 months)		30 (33%)
Virally Suppressed (VL <200	18 (28%)	21 (32%)
Conjes/ml in past 6 months)	10 (20%)	

OUTCOMES

OVERALL PROGRESS			
First Day to Enroll	9/1/2013		
First subject Enrolled (Harris Health)	10/17/2013		
Last day to Enroll	8/31/2015		
Enrollment to total proposed (200)	33%		
Enrollment time elapsed	50%		

Data as of: 9/2/2014

A dashboard summary report was created in Excel to track demographics, use of program services, referrals for substance use and mental health treatment, and improvement in study outcomes for clients enrolled in the program. It was updated weekly.



PROJECT IMPACTS

- Service coordination for clients experiencing homelessness has improved as a result of Project Hi-5.
- Synergistic partnerships among homeless providers, Harris Health System, and other local entities have been created through this program.
- More clients experiencing homelessness and living with HIV are being retained in care and are virally suppressed compared to before.

RESOURCES

The following resources from the Project Hi-5 model can be found on the Center for Advancing Health Policy and Practice website. All resources from the initiative Building a Medical Home for Multiply Diagnosed HIV-Positive Homeless Populations can be found on the web at http://cahpp.org/project/medheart/resources

Training presentation and materials for homeless providers about HIV antiretroviral therapy (.pdf): this presentation was used to cross train homeless providers on the medical care needs of people who are experiencing homeless and living with HIV

AETC training and education needs assessment (.pdf): used to assess gaps in knowledge of HIV care among HCHP staff

Flow chart of client movement through the Hi-5 program (.pptx): shows how clients may enter and progress through Hi-5 program

Client service plan for HIV services (.pdf): format for client service plan

SAMISS Substance Abuse and Mental Illness Symptoms Screener (.pdf): instrument used to assess client's substance use and mental illness

