Pathways to Health + Home
Final Program Evaluation Report
November 2017-December 2020

Prepared by Desert Vista Consulting | June 2021

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I. Introduction

In 2017, the City of Sacramento (City) applied to the State of California's Department of Health Care Services (DHCS) to become a lead entity in the Section 1115 Medicaid Waiver Whole Person Care (WPC) program. On June 12, 2017, DHCS formally accepted the City into California's WPC program, one of 25 Medicaid pilot programs being implemented across the state. The City's WPC pilot is known as Pathways to Health + Home.

Pathways to Health + Home (Pathways) was a four-year pilot to improve health, quality of life, and housing stability for Sacramento's most vulnerable individuals experiencing, or at risk of experiencing, homelessness. Led by the City, the program brought together local hospitals, community clinics, health plans, homeless services, housing providers, first responders, and community-based organizations to create an integrated system of care.

This final evaluation report has been prepared on behalf of the City to present evaluation findings about key aspects of Pathways and includes the following components:

- Introduction
- Program and Model Descriptions
- Data Sources, Methods, and Limitations
- All Program Enrollees Served (including demographics and characteristics)
- Pathways Services for Chronically Homeless Individuals
- Characteristics of Disenrolled Participants
- Outcomes: Housing, Psycho-social acuity level scores, and Health Care Utilization
- Lessons Learned from the WPC Pilot (care coordination success and challenges, outreach and engagement challenges, lessons for future CalAIM efforts)

Overarching Takeaways:

- Significant effort, resources and expertise is required to outreach and enroll this population into the program, and to maintain engagement in services. Financial investment in field-based outreach services is a vital component of programs targeting individuals experiencing homelessness.
- Program participants with complex health, behavioral health and social service needs often need frequent contact to build initial trust and understand the benefit of program involvement. Pathways Service Partners provided a tremendous volume of direct care management services to program participants.
- Program graduates have significantly improved levels of functioning across multiple life domains and significant decreases in use of high-cost health care services (e.g., ED visits, inpatient hospitalizations).
- The Care Management Database includes robust service tracking and documentation of enrollee demographics, goals, and outcomes. It facilitates communication across partners, reduces service fragmentation and duplication and is a rich source of data for analyzing program operations and outcomes.
- The Pathways program has successfully connected 969 enrollees **(disenrolled and active)** to housing. Housing services - assistance with the voucher application process, housing location, move-in and retention supports have been critical to long-term placement success.
- Care management supports from clinical and field-based teams have assisted clients in accessing much needed and often long awaited medical, behavioral health and specialty care.

II. Program and Model Descriptions

Program Description

Whole Person Care (WPC) is a State Medicaid program designed to increase coordination between housing, health, behavioral health, and social services in a patient-centered manner to address the needs of high users of multiple systems who continue to have poor health outcomes. WPC offers flexible funding to pay for infrastructure and services not otherwise covered or directly reimbursed by Medi-Cal to improve care for targeted populations. While each pilot is uniquely designed to meet the needs of their communities, all are required to form partnerships that work together to identify target populations, assess health and housing needs, share data across systems, coordinate services in real-time, and report and evaluate outcomes.

Pathways to Health + Home Model

The goal of Pathways to Health + Home was to increase capacity to serve individuals experiencing homelessness with complex health care needs through a more responsive, coordinated system of care. The care delivery model provided new services and coordination of existing services to stabilize and connect enrollees to the right care in the most appropriate settings. The centerpiece of the model was Community-Based Care Coordination, which promotes "co-management" between health, housing, and community-based partners to better align and manage health, behavioral health, social services, and housing services.

The **Community-Based Care Coordination** infrastructure leverages, integrates, and aligns clinical and service delivery expertise and capacities to provide the following 5 functions:

Community-Based Outreach and Care Management Entity

- Organization that employs Community Health Workers (CHWs), many with lived experience, with expertise working with the target population who provide field-based outreach to engage individuals to participate in the Pathways program.
- Upon entry to the Pathways program, CHWs use a psycho-social assessment to determine the types and levels of services that are needed. Once enrolled in Pathways, CHWs assess client needs using a psycho-social assessment, initiate the Shared Care Plan with client health, housing and social services goals, and facilitate connection to the social determinants of health.

Centralized Eligibility and Enrollment Entity

- Receives all referrals to Pathways, manages enrollee assignment to a clinical hub and care team and monitors Medi-Cal status to ensure ongoing eligibility in the program.

Pathways Hubs

- Serve as the "health home" and Care Team backbone, under the supervision of a Hub employed licensed Care Coordinator (e.g., LCSW, LMFT, PA, or RN).
- Pathways Hubs expedite access to health, mental health, and addiction treatment to high-acuity enrollees, provide ongoing medical care management, and coordinate access to specialty care when needed.
- Pathways Hubs collaborate with CHWs and housing navigators to create and implement a Shared Care Plan for each Pathways enrollee.

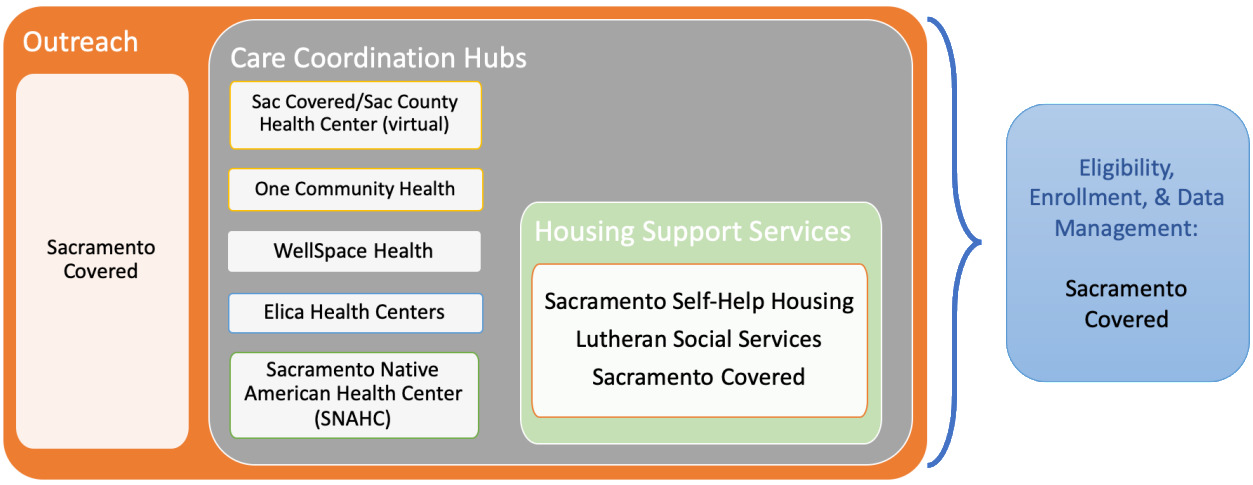
Pathways Housing Services Partners

- Organization(s) that provide housing navigation, coordination, and services to Pathways enrollees.
- Housing service partners work within the Coordinated Entry System (CES) to support enrollees through the entire housing voucher application process, assist with locating appropriate housing locations, create individualized housing support plans, and collaborate with landlords and tenants after placement to promote long-term housing success.
- Housing service partners also work to identify housing placements outside the CES for clients with medical and functional complexities that require a higher level of care.

Data Management Entity

- Organization that hosts the centralized care management platform and Shared Care Plan where Pathways partners track enrollee demographics, services, referrals, and enrollee health, housing, and social services goals.
- The care management platform is accessible to all contracted Pathways Service Partners through data sharing agreements, client consent, and secure and password protected log-in capability; it serves as a primary portal for multiple providers to communicate and share information about shared clients.

The following figure demonstrates the **Community-Based Care Coordination** infrastructure, which facilitates provider-to-provider communication to create seamless transitions, care continuity, and coordination between service partners and across settings. Pathways Service Partners developed cross-system workflows, engaged in routine "huddles" and case conferencing, and used the enrollee Shared Care Plan to optimize service delivery, reduce access and treatment barriers, and improve health, behavioral health, and housing outcomes.



In addition to coordination among the Pathways Service Partners, care coordination protocols and workflows were developed to improve communication and care management across key community partners including: the Complex Care Management programs implemented by the five Geographic Managed Care (GMC) plans; River City Medical Group Independent Physician Association (IPA), emergency department and inpatient discharge planners and social workers in the four hospital systems; City and County housing and social services programs; the crisis response system; and the IMPACT teams fielded by the City's Police Department to work with individuals experiencing homelessness.

III. Data Sources, Methods, and Limitations

The purpose of this evaluation was formative, and data were used throughout the evaluation to inform practice and policy and to initiate quality improvement initiatives, using the Plan Do Study Act (PDSA) improvement methodology. The study design was non-experimental, and the evaluation used multiple methods in which both quantitative and qualitative data were collected, analyzed, and synthesized.

Research Questions

1. What is the impact of care coordination and 'co-management' between Pathways partner organizations on enrollee health and housing outcomes? What factors contribute to enrollee engagement and success (e.g., number of services per week, length of enrollment, etc.)?
2. What is the role of temporary shelter placement on health and permanent housing outcomes? What, if any factors, influenced the housing outcome? What are the barriers and facilitators to connecting enrollees to health and housing resources?
3. What is the impact of the Pathways model on costs and cost-offsets for health plans and hospitals (e.g., inpatient days and ED utilization)?

Data Sources

- **Care Management Data Platform:** The Care Management Data Platform served as an integral tool for Pathways partners to maintain a shared record for each Pathways client. Pathways partners kept track of progress using the Care Management Data Platform, including program services and outreach efforts. In addition to being a crucial care coordination tool for Pathways service partners, data from this platform was also a main source for the evaluation, and included information about enrolled participants' demographics, client and program characteristics, and housing disposition at exit. The purpose of including these data was to understand the populations served and what, if any, disparities in outcomes existed between different sub-populations, (e.g., race, gender, age). This data was also analyzed to understand to what extent the level of engagement in the program (e.g., duration, service level, frequency of contact) contributed to health and housing outcomes.
- **Health Care Utilization Claims:** Through an external data request, utilization claims data were received from four health plans: Aetna, Anthem, HealthNet, and Molina. Data received included date and type of claim for Pathways enrollees with coverage between January 2016 thru May 2021. Health Plan Claims were analyzed to assess for utilization patterns prior to Pathways and to analyze pre and post utilization outcomes (i.e., the number of emergency department visits a program participant had in the six months prior to enrolling in the Pathways program compared to the number in the six months following disenrollment from the Pathways program).
- **Homeless Management Information System: Vulnerability Index – Service Prioritization Decision Assistance Tool assessment (VI-SPDAT):** Data for a portion of Pathways enrollees were entered into the Homeless Management Information Systems (HMIS). To further understand the complexity of a chronically homeless population, VI-SPDAT assessments were completed and included data from these enrollees, such as the length of time since the enrollee had stable housing and other contextual factors preceding involvement in housing support services.
- **Focus Group:** Throughout the evaluation, several challenges were identified, including difficulty capturing all services and activities in the Care Management Data Platform and engagement challenges resulting in a high number of enrollees with a disenrollment reason of '90 days of No Contact.' On January 30, 2020 a focus group with Sacramento Covered CHWs and Health Navigators was conducted to understand what, if any, services and activities were not captured in the Care Management Data Platform and what challenges they faced keeping enrollees engaged in the program. Responses from the focus group participants were included for the purpose of identifying ways future similar projects may be improved and what program engagement challenges are likely to come up when implementing interventions for a chronically homeless population.
- **Pathways Provider Survey:** A survey was administered to Pathways program providers in May 2021 to assess the level of care coordination, information sharing, and collaboration across health, housing, and outreach provider teams. Data from this survey are included in the section labeled 'Lessons Learned from the WPC Pilot.'

Analysis Methods

A mixed method analysis plan was utilized to assess both quantitative and qualitative data using descriptive, multivariate, and qualitative techniques. Client information from the Care Management Data Platform, Health Care Utilization Claims, and VI-SPDAT datasets were matched between datasets based on a unique identifier to enable analysis at the individual-level and determine what, if any, factors predict client engagement and success. Analyses were also conducted to assess to what extent the program has an impact on health and housing outcomes, with consideration for various demographic and characteristic differences among clients. The following factors were tested in a predictive model:

Enrollee Demographics:

- Race/ethnicity
- Gender
- Age

Enrollee Characteristics:

- Psycho-social acuity level at time of enrollment
- Co- or tri-morbidity (*mental health*, *substance use*, *physical health*)

Program Characteristics:

- Enrollment cohort
- Length of stay
- Weekly service level
- Hub assignment,
- Housing provider
- Primary referral source

Within this master dataset that details enrollee information, analyses were conducted to determine any differences between an individual's claims history (health care utilization) six months before enrollment in Pathways and six months after disenrollment in Pathways. To be included in these analyses, enrollees had to meet the following criteria:

- Disenrolled in Pathways before December 2020
- Enrolled in a Health Plan in all six months prior to enrollment in Pathways *and* in all six months following disenrollment in Pathways[1]

Pre and Post Design: Health Care Utilization

6	5	4	3	2	1	Enrollment in Pathways	1	2	3	4	5	6
Pre months (Sum of visits)							Post months (Sum of visits)					

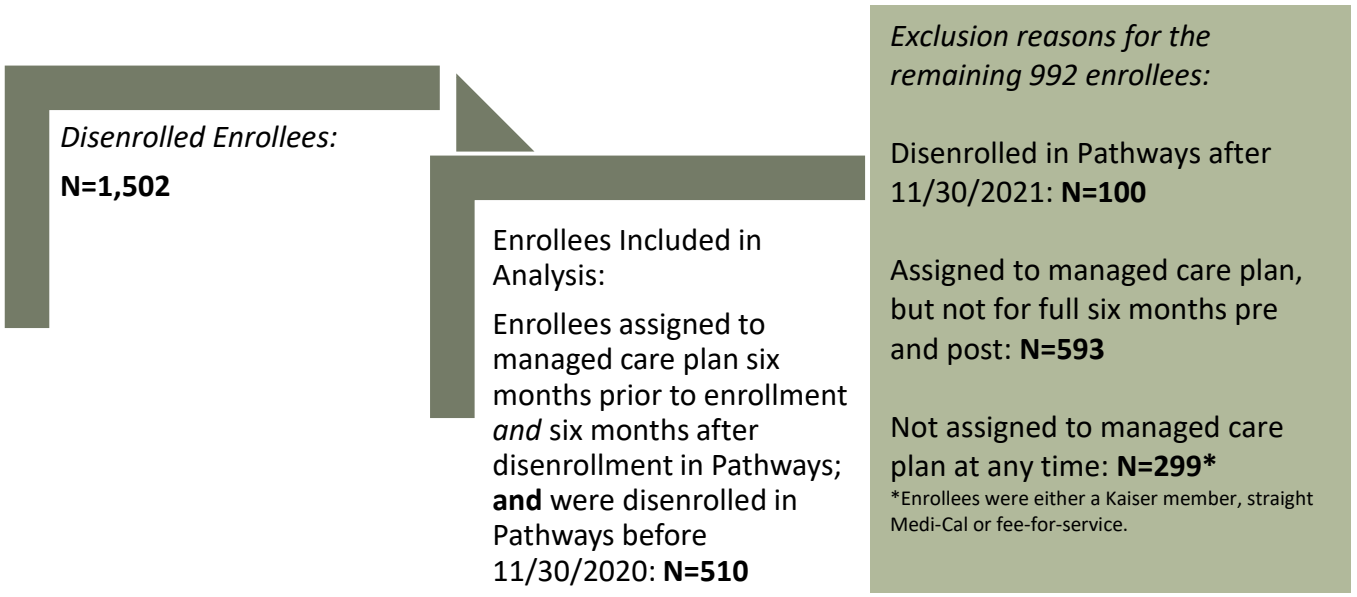
[1] Enrollment in a Health Plan allowed for a count of utilization, or a determination that a count of zero meant that the enrollee did not have any utilization, because if so, the health plan would have reported this.

In addition, housing outcomes were assessed by looking at housing disposition when a person exits from Pathways, using the following categories: Housed (temporary or permanent housing) versus Unhoused (Unsheltered or in shelter placement). Lastly, descriptive analyses and qualitative coding were used to review and interpret the Pathways Provider survey results. Descriptive statistics included comparing responses by type of provider (Hub, Housing Provider, Outreach Provider). The most common responses are reported.

Data Limitations

The analysis of health care utilization only includes enrollees who were assigned to one of the following Medicaid Managed Care Plans: Aetna, Anthem, Healthnet, or Molina. Consequently, analysis of health care utilization patterns for enrollees who were Kaiser members or whose Medicaid classification was "Straight Medi-Cal/fee-for-service" were not included in the analysis for this report.

To be included in the health care utilization outcome analysis, an enrollee had to have continuous health plan coverage six months before enrollment in Pathways and six months after disenrollment in Pathways (i.e., participants must have disenrolled in Pathways on a date prior to 11/30/2020 to allow for a full count of six months post). The last months for claims received in the data request was May 2021, therefore, several disenrolled enrollees were excluded from the analysis (N=992). Below is an overview of data availability for the pre and post health care utilization analysis for the 1,502 disenrolled enrollees:



Secondly, depending on the type of disenrollment from Pathways, the results for housing outcomes were unavailable; if an enrollee exited the program due to 90 days of no contact, being incarcerated, or death, there was not housing data following their disenrollment date.

IV. All Program Enrollees Served

The Pathways program served a total 2,369 individuals between November 1, 2017 and June 1, 2021 when the program stopped accepting new referrals in preparation for program sunset. For the purposes of the evaluation, we focused our analyses on the cohort of 2,216 individuals enrolled in the program between November 1, 2017 and December 31, 2020 to ensure a sufficient period to obtain complete claims data on enrollees. Of the 2,216 enrollees, 104 had more than one episode (i.e., enrollment period) in the program.[2] Overall, a total of 2,320 program episodes occurred in the reporting period. As of this report date, the Pathways program was still on-going, currently serving a total of 744 enrollees. A total 1,502 enrollees were disenrolled in Pathways by the end of this reporting period.

Below is an overview of the populations described in this report. Changes in population frequencies are due to missing data (see Data Limitations Section of the report). For example, in the available data, there were a total of 1,502 inactive enrollees. However, only a portion of these (N=510, 34%) were covered by the four included health plans for a duration that allowed for analysis of enrollee health care utilization *in the six months prior to enrolling in Pathways* and *in the six months following their disenrollment date from Pathways*.

However, a population sample over 500 is considered robust with more than sufficient analytic power to confidently determine program impact. Health care utilization outcomes reported tell the story of the effectiveness of the Pathways Program,[3] despite missing data for a portion of the population.

Table 1. Populations Overview

Population	Frequency
• Number Enrollees Served	2,216
• Number of Program Episodes	2,320
• Number of Disenrolled Enrollees	1,502
• Number of Enrollees for whom housing status at exit is known	536
• Number of Enrollees covered by a health plan continually six months pre and post Pathways	510
• Number of Enrollees with HMIS – VI-SPDAT data (active and inactive sample)	512
• Number of Enrollees whose disenrollment reason was deceased	102

[2] The demographics section of the report includes the unduplicated count of 2,216. However, for the outcome sections, all program episodes are included, which means that some enrollees are represented multiple times.

[3] Analyses were conducted to determine if populations were similar in terms of demographics and characteristics. No significant differences were found, which further the belief that the results reported here are generalizable.

Demographics and characteristics data in the report are presented for the Pathways population as a whole and in some cases by specific enrollment date cohorts. These cohorts are based on key phases in the program's history, where there was enough variability in program conditions and environmental context that it warranted isolated examination (e.g., the Covid-19 Global Pandemic timeframe). As detailed in the table below, the first cohort includes program participants enrolled during the program's "Early Engagement" phase, when Pathways partners were establishing their approach to co-management with a small subset of contracted service providers. The second cohort includes individuals enrolled during the program's first full year of implementation following the "Early Engagement" phase when all contracted partners were in place with established enrollee panels. The third cohort includes participants who enrolled during the Covid-19 Global Pandemic timeframe when the Pathways approach to outreach, temporary shelter, and health care services was responding to the immediate public health crisis.

Table 2. Enrollment Date Cohorts

Cohorts	Program Episodes	Episodes Frequency
Cohort 1	Program episodes with enrollment dates between November 2017 and May 2018 (Early Engagement Cohort [4])	453
Cohort 2	Program episodes with enrollment dates between June 2018 and February 2020	1,486
Cohort 3	Program episodes with enrollment dates between March 2020 and December 2020 (Covid-19 Global Pandemic timeframe[5])	381
Since program inception	Program episodes with enrollment dates between November 2017 and December 2020	2,320

Program Enrollee Demographics and Characteristics

The following section details the demographic characteristics of unique individuals enrolled from program inception in November 2017 through December 2020. For enrollees with multiple service episodes, data from their first service episode are included.

Gender, Age, and Race/Ethnicity

Of the 2,216 enrollees, the majority (62%) were male (See Figure 3). On the following page, Figure 1 shows the distribution of enrollee ages at enrollment and Figure 2 details the proportion of enrollees that identified into each race or ethnicity category. Approximately half of enrollees were between the ages of 50 and 64. The ages of enrollees ranged from 20 to 90

[4] Cohort 1 includes enrollees served in the early stages of the project at a time where not all Pathways Partners were active, and the model was not followed to fidelity.

[5] In March 2020, the world was hit with a global virus pandemic (the Covid-19 virus). To assess if the pandemic affected the Pathways Program, program enrollees during this time have been designated as Cohort 3 enrollees.

years old, and the average age[6] of a program enrollee was 51 years old (SD=12 years; median=53). Most enrollees identified as either White (46%) or Black/African American (33%).

Figure 1. Age categories – All enrollees

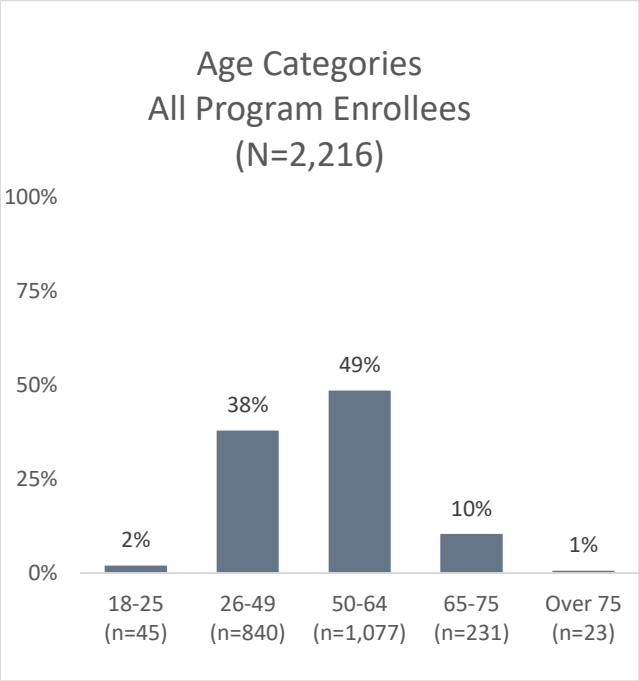
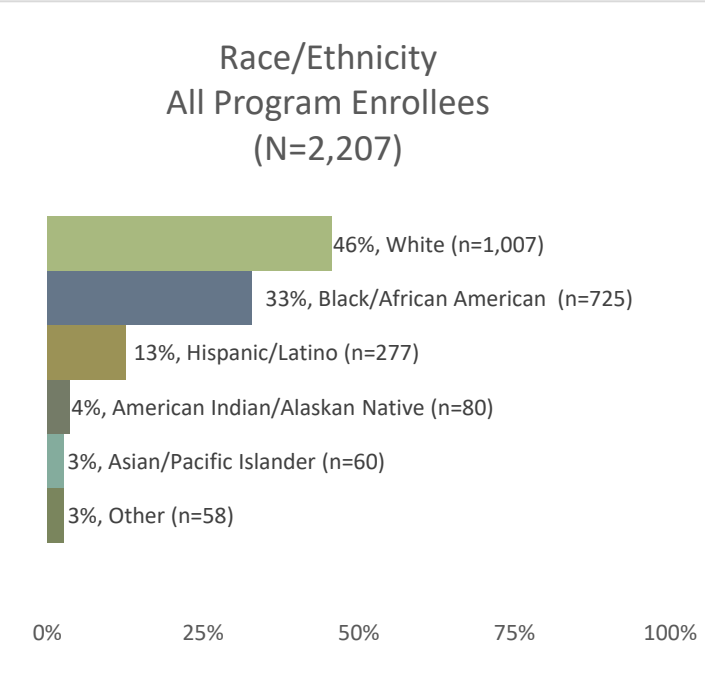
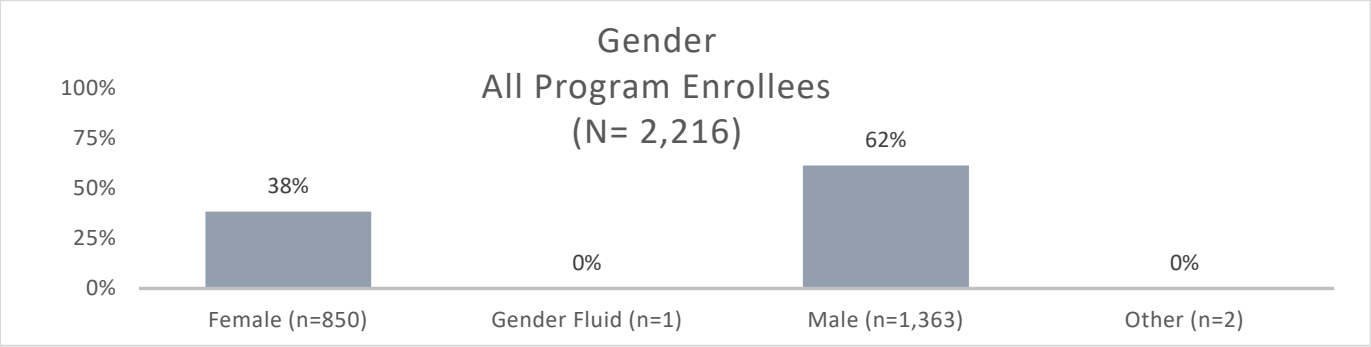


Figure 2. Race/ethnicity – All enrollees



Note: data missing for nine enrollees.

Figure 3. Gender – All enrollees



[6] For enrollees with multiple episodes, the age at their initial episode is reported.

Referral Source

By design, the program had a phased approach to referrals. Initially, the City Police IMPACT team was the primary referral source, expanding to clinic partners, hospitals, and health plans. Over the entire program period, the most common referral source was hospitals (38%), followed by the IMPACT team (27%). Over half of the IMPACT team referrals were made during the early engagement period (Cohort 1), while hospital referrals mostly occurred during the final enrollment periods (Cohort 2 and 3).

Figure 4. Primary Referral Source – All program enrollees

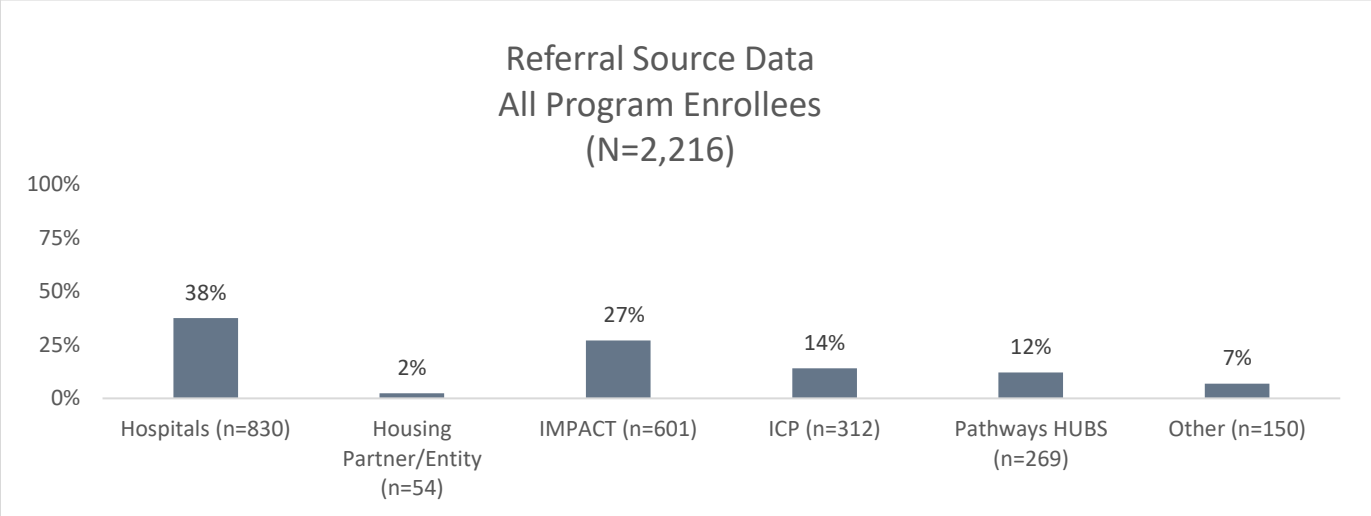
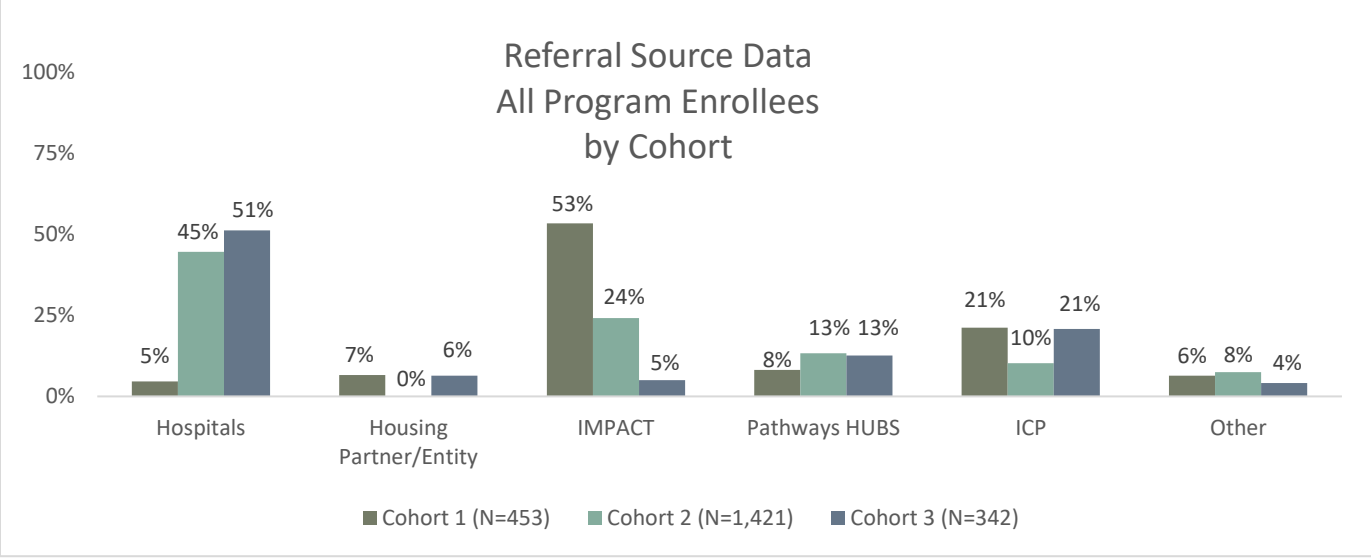


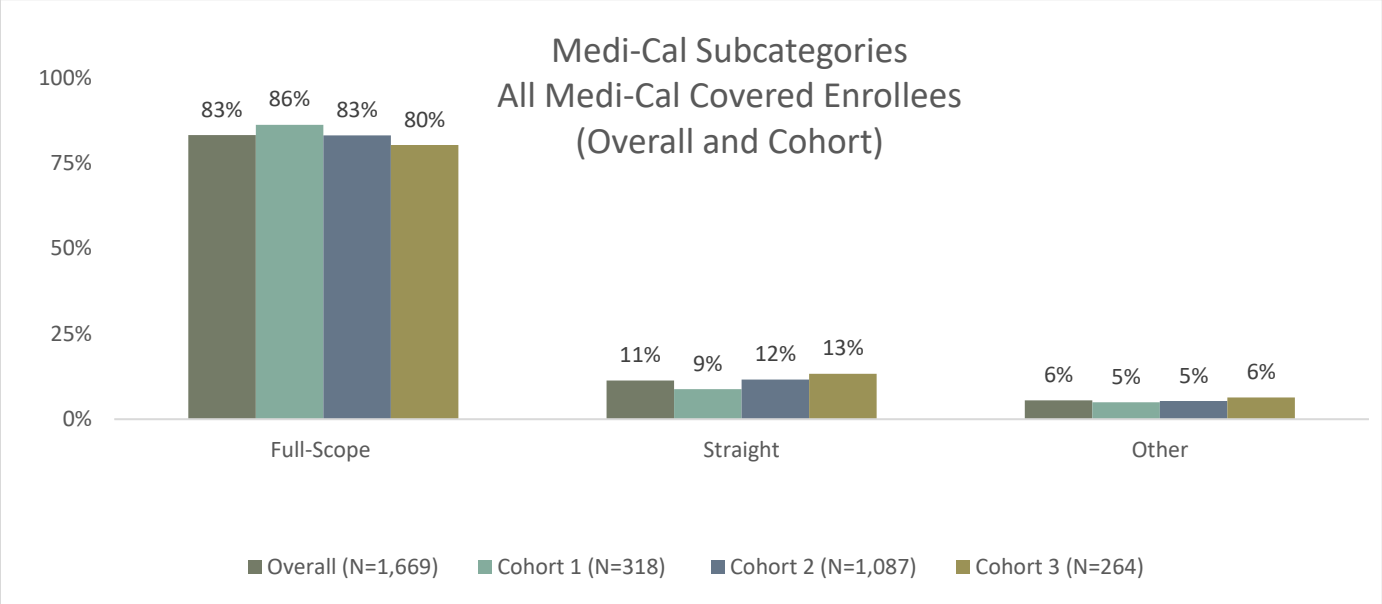
Figure 5. Primary Referral Source, by Cohort – All enrollees



Medi-Cal Status

Most enrollees (76%) were covered by Medi-Cal upon entry into Pathways. Of these, a majority were Full-Scope Medi-Cal, with a comprehensive benefit administered by a managed care plan, including a designated primary care provider (83%). A smaller but significant number of participants were enrolled in "Straight" Medi-Cal, meaning that they did not have a designated managed care plan with associated care coordination infrastructure and were not required to have a specific primary care provider (11%). The time period with the highest proportion of enrollees who had Straight Medi-Cal status was Cohort 3 (enrollment dates between March 2020 and December 2020).

Figure 6. Medi-Cal Subcategories, Overall and by Cohort – All Medi-Cal covered enrollees



Psycho-Social Assessment – Acuity levels at program entry

Upon entry into Pathways, CHWs used a psycho-social assessment to determine the types and levels of services that were needed. The assessment is rated on a scale from 1 to 4 with 4 indicating a high and urgent need for services and 1 indicating a limited/no need for services. Enrollees with an acuity score of 3 or 4 are considered "high acuity" and require contact from at least one of the services partners on a weekly basis. The care coordination needs for enrollees with "high acuity" are significant, as these individuals are not only experiencing homelessness, they often have untreated health, mental health and substance use conditions which require referrals to multiple service partners and ongoing care management. In the Pathways program, an overall acuity score of 1 means the enrollee can self-manage their health and social service needs and housing circumstances without ongoing support from their Pathways care team. At this point, graduation criteria are met and discussion with the program participant about a decrease in services and/or graduation is initiated.

Below are the 10 life areas that are rated and the description of a level 1 acuity (graduation criteria met).

Table 3. Psycho-social Assessment – Life areas

Life Area	Level 1 (graduation criteria met)
Basic Needs	• Food, clothing and other sustenance items available through client's own means or client has ongoing access to assistance programs that maintain basic needs consistently • Client is able to perform activities of daily living (ADL) independently
Transportation	• Client has own or other means of transportation consistently available, can drive self, or can afford private or public transportation
Risk Reduction	• Client abstains from risky behavior by safer practices and/or client has good understanding of risks
Health Insurance	• Client has insurance/medical care coverage. Circle coverage: Medi-Cal, PHC, Veteran's Administration, other or client has ability to pay for care on his/her/their own
Self Sufficiency	• Client independently always follows up on referrals or is able to complete forms independently • Client us able to live within financial means and never needs financial assistance • Client does not burn bridges and is able to access services he/she/they is/are eligible for and that are available
Housing/Living arrangement	• Client lives in house of choice which is a clean, habitable apartment or house and client's living situation is stable; not in jeopardy
Mental Health	• Client has no history of mental illness, psychological disorders or psychotropic medications or client has no need for counseling referral
Alcohol, Tobacco, and other Drugs	• Client has no difficulty with addictions including alcohol, illegal drugs and prescription drugs, client has no past problems with drugs or has been in recovery for more than a year, or client has no need for treatment referral
Medical Needs	• Client has stable health with access to ongoing medical care and receives lab work periodically, or is asymptomatic in medical care
Oral Health	• Client is currently in active dental care, has seen a dentist in the past six months, has no complaints of mouth, tongue, tooth, or gum pain and teeth and gums appear healthy as observed during assessments, or client reports practicing daily oral hygiene

The average psycho-social total score at enrollment for all enrollees was 3.3. Nearly 90% of participants were considered "high acuity" at enrollment, with 1,970 individuals having an initial acuity level score of 3 or 4.

Table 4. Acuity Levels at Enrollment – All program participants

Acuity Level at Enrollment	
Average Total Score	3.3 (SD = 0.7; median 3.0) (N=2,216)
Participants with a score of "1" at enrollment	0.3% (N=6)
Participants with a score of "2" at enrollment	11% (N=240)
Participants with a score of "3" at enrollment	51% (N=1,129)
Participants with a score of "4" at enrollment	38% (N=841)

Figure 7 shows enrollees who entered Pathways with co- or tri-morbid mental health, substance use disorder, and/or chronic medical conditions. These enrollees had "high acuity" level scores (a score of 3 or 4) at enrollment in two or all three of the following life areas: substance use disorder (SUD), Mental Health (MH), and Chronic Medical Conditions (Medical).

This sub-population of enrollees represent the highest need, most complex individuals, often requiring a high intensity of interaction, communication, and care coordination across the CHW, health hub and housing navigator.

Figure 7. Co-Morbid and Tri-Morbid Conditions at Enrollment – All program participants

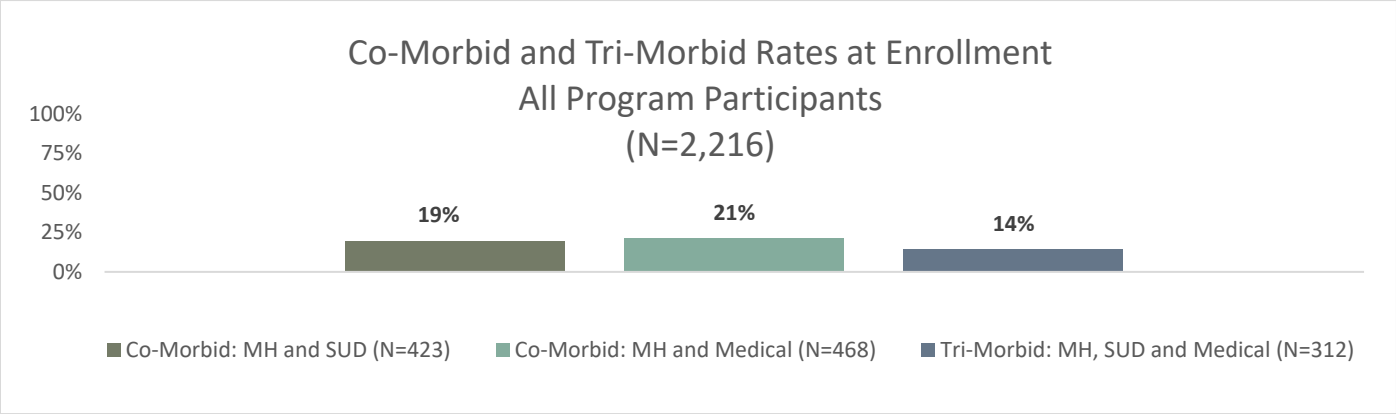


Table 5 provides an overview of the frequency and types of life area challenges assessed at enrollment. As illustrated, enrollees had the most needs in the housing and basic needs domains. The domain with the lowest needs level was health insurance.

Table 5. Number of Enrollees with an Acuity Rating of 3 or 4 at Enrollment, by life area

Psycho-social Assessment Life Area	Frequency	Percentage
Housing	2,204	100%[7]
Basic Needs	1,800	81%
Transportation	1,526	69%
Medical Needs	1,391	63%

[7] Percentage is 99.5%, which is rounded up to 100%.

Psycho-social Assessment Life Area	Frequency	Percentage
Self Sufficiency	1,186	54%
Substance Use Disorder (SUD)	1,098	50%
Oral Health	1,040	47%
Risk Reduction	781	35%
Mental Health	649	29%
Health Insurance	522	24%
Overall	2,216	100%

V. Pathways Services for Chronically Homeless Individuals

Serving the Pathways population required an array of service types, including attending appointments to retrieve documents needed for housing vouchers, responding to health crises, assisting with transportation, and serving as liaisons with landlords, to name a few. The Pathways program served not only mostly chronically homeless individuals[8] but also individuals with very complex needs and histories.

A review of VI-SPDAT assessments from a sample of Pathways enrollees (N=512), showed that ***83% had been without stable housing for over a year and 76% reported mostly sleeping in a place not meant for human habitation***. The average total VI-SPDAT Assessment score was 11, which comes with a recommendation of 'an assessment for permanent Supportive Housing/Housing First' service. In addition to housing challenges, VI-SPDAT data showed that 82% of the sample had a history of being in jail and 68% had police encounters in the six months prior to the assessment.

Over the course of the Pathways program, ***a total of 394,699 services were logged in the Care Management Data Platform.*** The magnitude of services illustrates the tireless efforts of the Pathways staff and the resources required to address the needs of the Pathways population.

During a focus group session held on January 30, 2020 Sacramento Covered CHWs and Health Navigators were asked to describe their experiences providing services to the Pathways population. In this discussion, three themes emerged – the first one being the challenging and time-consuming nature of building trust and rapport with a population that often has distrust of service providers. This speaks to the second theme of the emotional toll the work can take on the staff who are faced with multiple, complex service goals related to both health and housing needs. In addition to the complex needs of the enrollees, staff can experience frustration trying to access services, shelter, and housing where demand far exceeds supply. Finally, a theme emerged about the time-consuming nature of the work in general and how the almost 400,000

[8] https://www.govinfo.gov/content/pkg/FR-2015-12-04/pdf/2015-30473.pdf. The U.S. Department of Housing and Urban Development (HUD) defines chronic homelessness as an individual or family that is homeless and resides in a place not meant for human habitation, a safe haven, or in an emergency shelter, and has been homeless and residing in such a place for at least 1 year or on at least 4 separate occasions in the last 3 years.

services documented do not always adequately reflect the time and resources that go into this work. Below are staff responses that highlight these themes.

In addition to the responses above, staff provided examples of the types of services and activities that go beyond what is documented:

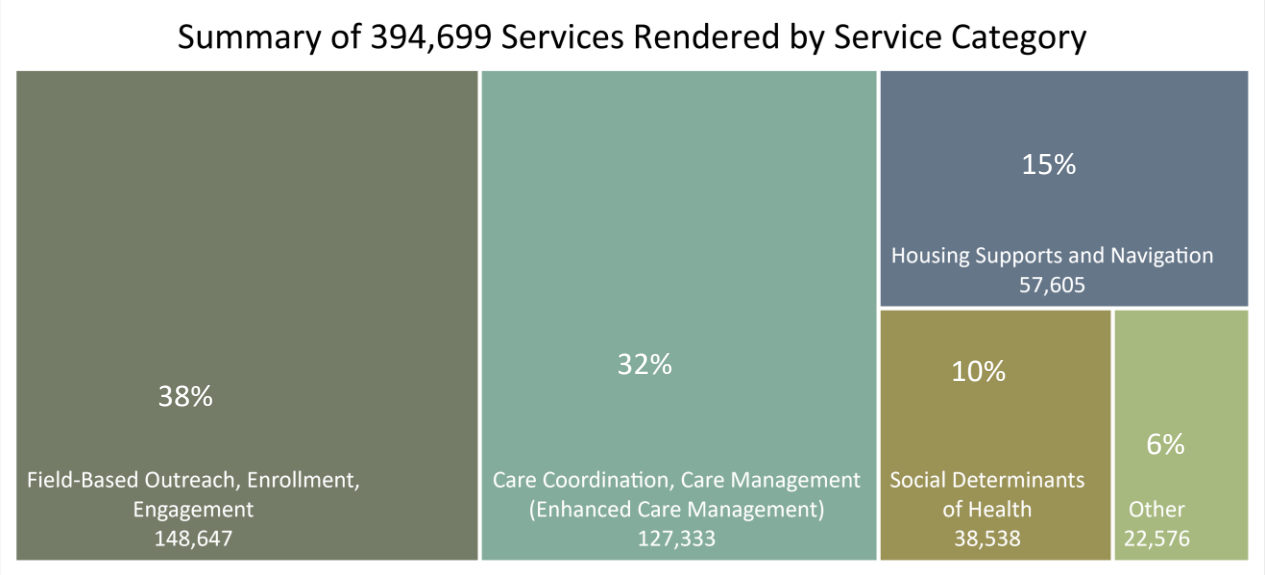
Table 6. Services and Activities Not Captured in Documentation – Staff responses

Administrative Services/Activities	Client Services/Activities
• Internal team communication and coordination about program participants • Supervision and training hours • Advocacy on behalf of homeless people with clinical providers, landlords, businesses • Online research on housing options • Verifying client status with Medi-Cal office during health plan or PCP change requests • Time spent on the phone with the health plan scheduling/authorizing specialty care appointments • Training new partners/staff on Pathways model and practices • Data entry/documentation	• Time spent waiting at Social Security office • Time spent waiting at client medical appointments/hospital • Time spent at the DMV to obtain a Driver's License • Distribution of hygiene kits in community settings • Responding to calls/inquiries from homeless individuals who are not enrolled in Pathways (e.g., heard about the program from a friend) • Client move-ins • Safety planning

Below is a summary of the services and activities documented in the Care Management Data Platform. Over the course of the program, a total of ***394,699 services and activities were logged*** across the following four categories:

1) Field-based Outreach, Enrollment and Engagement
2) Care Coordination and Care Management
3) Housing Supports and Navigation
4) Social Determinants of Health

Figure 8. Summary of All Services



Tables 7 through 10 detail the specific types of activities conducted within each service category and present the frequency and percent within the category in which these actions occurred.

Table 7. Services – Field-based outreach, enrollment, engagement categories

Field-Based Outreach, Enrollment, Engagement	Frequency	Percentage
Program enrollment and acuity assessment	16,947	11%
Engagement attempt	65,018	44%
Engagement contact	66,682	45%
Total	148,647	100%

Table 8. Services – Care coordination, care management (enhanced care management)

Care Coordination, Care Management (Enhanced Care Management)	Frequency	Percentage
Shared Care Plan (development and updates)	15,099	12%
Coordination across Pathways service partners	53,037	42%
Coordination with non-Pathways service partners	10,379	8%
Case conferencing	18,762	15%
Appointment scheduling	17,123	13%
Appointment accompaniment	3,704	3%
Expedited access to clinical services (Primary/SUD and MH)	2,393	2%
Health education	720	1%
Education (general)	309	0%
System navigation/care transitions	5,807	5%
Total	127,333	100%

Table 9. Services – Housing supports and navigation

Housing Supports and Navigation	Frequency	Percentage
Service and supports to access housing:	41,267	72%
• **Document retrieval/voucher application**	23,215	56%
• **VI-SPDAT/HMIS documentation**	2,701	7%
• **Housing location services/shelter placement**	14,610	35%
• **Housing education**	742	2%
Services and supports to retain/maintain housing:	16,338	28%
• **Tenant/Financial support**	14,969	92%
• **Landlord interventions**	1,369	8%
Total	57,605	100%

Table 10. Services – Social determinants of health

Social Determinants of Health	Frequency	Percentage
Connection to insurance/Health Plan/Clinic assignment	2,620	7%
Medi-Cal retention (includes Medi-Cal verification)	10,933	28%
Transportation:	20,075	52%
• **Transportation – General**	17,642	88%
• **Transportation – Medical**	2,433	12%
Connection to public benefits & other resources	4,910	13%
Total	38,538	100%

VI. Characteristics of Disenrolled Participants

This section of the report examines program outcomes for enrollees who are no longer receiving services from the program (N=1,502). The demographics and characteristics of this population are similar to the entire enrolled population with most identifying as male, White or Black/African American, and with an average age of 51 years old.

Length of Stay in Program

The average time in the program for the 1,502 enrollees who were disenrolled from the program was 9 months. For enrollees with a disenrollment reason of 'graduation', the average time in the program was one calendar year (12 months). The shortest length of stay was less than a month and the longest length of stay was 32 months. While the program aimed to have a minimum length of stay of 90 days, some enrollees were considered inactive earlier than 90 days if they were disenrolled by client request, moved out of the county, or no longer met Medi-Cal program eligibility criteria.

Reasons for Disenrollment

Below are reasons for disenrollment among the 1,502 enrollees who were disenrolled from the program. Enrollees had a mandatory 90-day engagement phase in the program where Pathways service partners attempted to contact and engage them in services. Following three months of no contact with repeated contact attempts, staff disenrolled enrollees from the program in order to open their caseloads and take on new referrals.

Figure 9. Reasons for Disenrollment – All disenrolled program enrollees

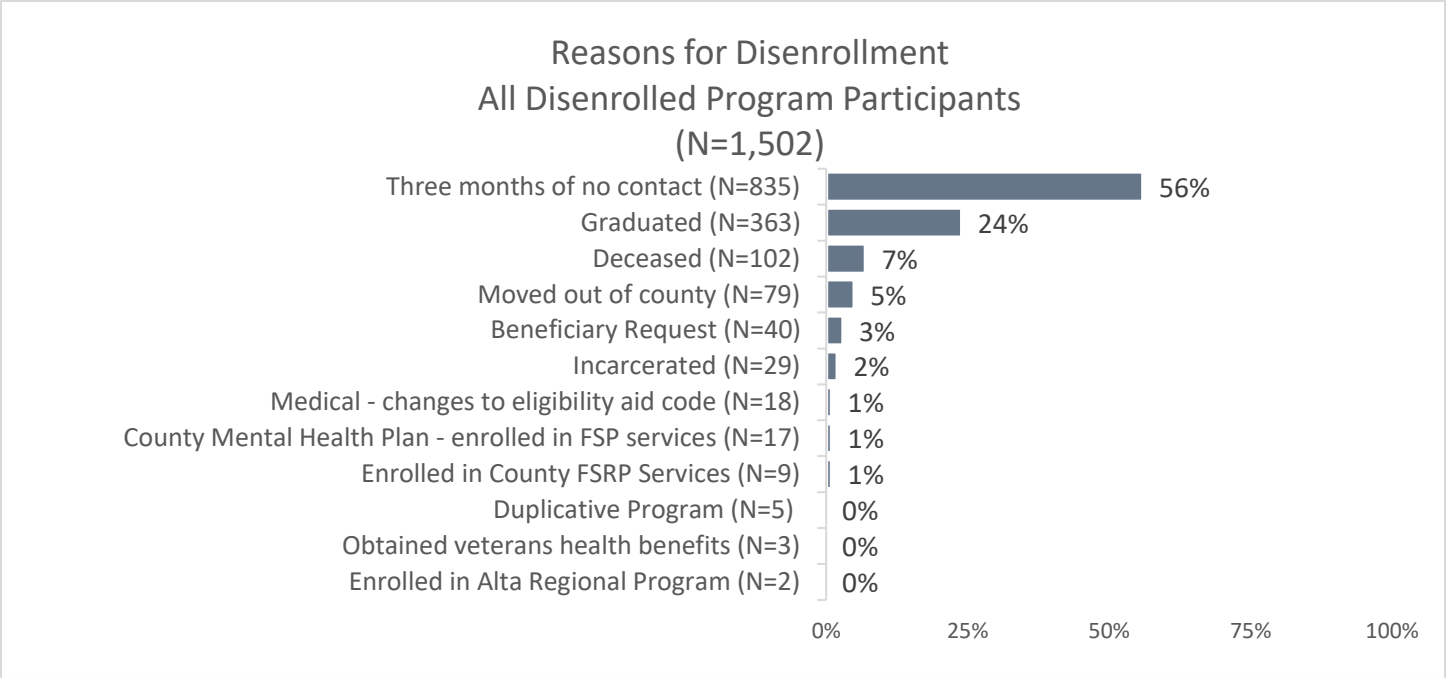


Table 11. Service Levels – All inactive program enrollees

Low Service Level	Medium Service Level	High Service Level
27% (N=398)	46% (N=694)	27% (N=410)

Deceased Enrollees

Throughout the Pathways program, a total of 102 enrollees (7% of disenrolled enrollees) died. Causes of death are not available. Demographics for this population are similar to the overall Pathways population with most enrollees identifying as White (48%) or Black/African American (32%), and mostly male (65%).

Although this population also had similar psycho-social acuity level scores at enrollment, a higher percentage of the enrollees who died had a 3 or 4 in the Medical Needs Domain (77% vs. 63%). Illness-related data were available from HMIS from a small sample of the deceased population (N=19). For this sample, 90% showed signs of a serious health condition and reported having a problematic drug or alcohol condition.

In addition, 95% reported mostly sleeping in a place not meant for habitation such as street, sidewalk or doorway, car, van or RV, beach, riverbed, or park. The average length of stay in the program for the deceased population was 8 months, and half received a high service level while enrolled, which means they received an average of three or more services per week.

The relative high percentage of enrollees who died (7% of disenrolled enrollees) speaks to how important the Pathways program is and how, despite a high level of engagement and service coordination, some chronically homeless individuals had health and behavioral health

conditions so severe they did not survive. Enrollees with few protective factors such as health, income, housing stability, and strong social support networks were served, which means that treatment plans included multiple complex needs and goals. For Pathways enrollees, the reality is that mortality is a real risk they live with on a daily basis. This is important context for front line staff, health plans, hospitals, community and health service providers, government officials and other stakeholders implementing similar interventions for individuals experiencing homelessness.

VII. Outcomes

The following section shows outcomes for individuals no longer enrolled in the program. This includes a total of 1,502 enrollees who at the time of this report were no longer enrolled in Pathways. Although this population constitutes the disenrolled population for this report, it should be noted that at the time of this report, Pathways was still on-going***. Of all Pathways enrollees served between inception and July 2021, 969 have been permanently or temporarily housed***.

Housing Placement at Exit – Housed vs. Unhoused

Connecting individuals to stable housing was a key outcome of the Pathways program and a goal in the service plan for each enrollee. According to Pathways staff, this included working with enrollees to address multiple barriers to achieving stable housing, including severe physical illness, behavioral health and/or substance abuse issues, and chronic homelessness (e.g., living in places not meant for habitation such as on streets or sidewalks) for extended periods of time, often several years.

Below are housing disposition outcome data for 536[9] enrollees. As can be seen, a majority of these enrollees (75%) were housed at the time of exit (permanent or temporary housing).

Main Finding:

Predictors of a positive housing outcome:

- Length of service of six months or longer
- Average weekly services of three or more

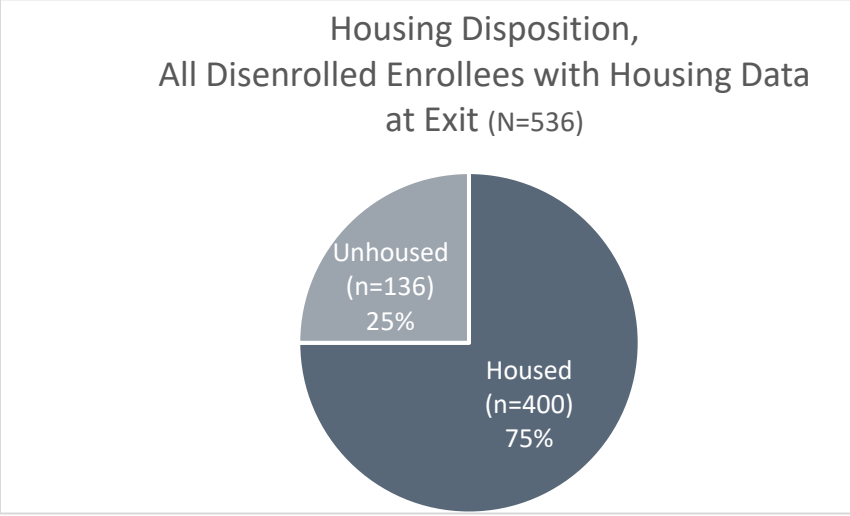
When examining different demographics and program characteristics, two factors were found to predict a positive housing outcome (housed at exit).[10] Enrollees who were in Pathways for at least six months *and* enrollees with a high service level (an average of three or more services per week) were more likely to be housed at exit than enrollees who were in Pathways less than six months or who received a low service level (an average of less than one service per week).

[9] The housing disposition at exit was recorded for 536 program participants. The remaining 966 enrollees exited the program without program staff knowing their housing disposition (e.g., disenrolled due to 90 days of no contact).

[10] A binary logistic regression model was developed to test for predictive factors. The strongest predictor of being housed at exit was length of stay in the program recording an odds ratio of 6.12 followed by a high service level (compared to a low service level) which was recorded at 2.0.

Below is a figure that shows the housing outcomes for all disenrolled enrollees with housing data at exit, followed by two tables that show the difference in housing outcomes for enrollees by the length of time they were in Pathways and by the average number of services they received on a weekly basis.

Figure 10. Housing Placement – Disenrolled program enrollees with housing data



"I was able to house one of my clients who has been incarcerated for most of his life. The client has received his SSI benefits, [has] been connected to primary care and specialist services, and [was] permanently housed with a Housing Choice Voucher because of the Pathways program."
- Pathways Outreach Provider

Table 12. Housed vs. Unhoused at Exit by Length of Service (N=524[11])

LOS Category	Housed	Unhoused
Five months or less (N=145)	47% (N=68)	53% (N=77)
Six months or longer (N=379)	86% (N=324)	14% (N=55)

Table 13. Housed vs. Unhoused at Exit by Service Levels (N=524)

LOS Category	Housed	Unhoused
Low Service Level (N=94)	63% (N=59)	37% (N=35)
Medium Service Level (N=199)	75% (N=149)	25% (N=50)
High Service Level (N=231)	80% (N=184)	20% (N=47)

[11] N= 524 due to missing data.

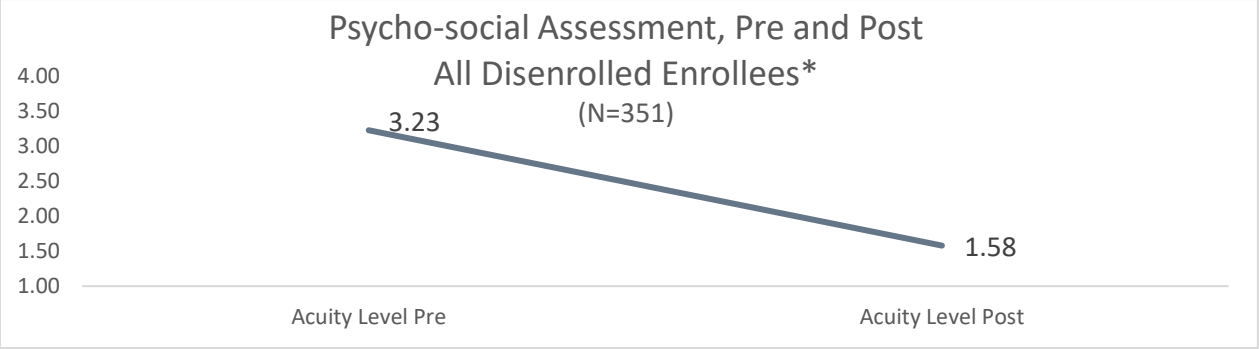
Successful Housing Story

"I have a client that's been enrolled in Pathways since 2018. They've lived in their car for years and suffered multiple heart attacks. There was an opportunity for the client to obtain hotel vouchers through the Sacramento Department of Human Assistance. I completed an HMIS (Homeless Management Information System) assessment with the client, who was able to go inside the following day. I notified the client's housing provider, who completed the client's housing choice voucher, which SHRA (Sacramento Housing and Redevelopment Agency) approved later that week. The client also found a place with her voucher and didn't have to move back into her car. The client has been housed since March." – Pathways Outreach Provider

Psycho-Social Assessment – Acuity levels pre and post

Figure 11 shows an analysis of psycho-social assessment data collected at enrollment (pre) and at disenrollment (post) for program participants. A paired-sample t-test was conducted to evaluate the change in acuity levels from pre to post and results show that there is a ***statistically significant decrease in acuity level scores from enrollment to disenrollment*** (See results in footnote below). Given the complexity of the Pathways participants across multiple life domains at enrollment, this finding represents a significant and positive outcome for the program. It is notable that 99% of enrollees included in this analysis graduated successfully from the Pathways program.

Figure 11. Acuity levels pre and post – All disenrolled program enrollees



Change statistically significant.
*Includes all enrollees who had both a pre and post assessment.

Health Care Utilization – Before and after enrollment in Pathways

The following section includes analyses conducted to assess if the Pathways program had an impact on hospital utilization, including Emergency Department visits and Inpatient visits. This section includes the following areas:

- For disenrolled participants, a comparison of health care utilization pre and post enrollment in the Pathways Program, where *pre* refers to the total number of services used in the six months prior to their Pathways enrollment date and *post* refers to the total number of services used in the six months following their Pathways disenrollment

date. Pre and post analyses are presented for each of the following categories of utilization:
    - Emergency Department (ED)
    - Inpatient (IP)
    - Chronic High-Cost (e.g., skilled nursing facilities, nursing facilities, end stage renal disease treatment facilities)
    - Outpatient
- Pre and post analyses of 'High Utilizers' were also conducted, including analyses of ED Visits that align with the CalAIM definition for adult high utilizers.[12]

Pre and Post Comparisons – Health care utilization

A total of 510 enrollees are included in the following analyses (See Data Limitations section of report for review of inclusion criteria).

The table below shows the sum of all services used among the 510 inactive enrollees included in the analysis.

Main Finding:
Statistically significant decrease in health care utilization for all enrollees from pre to post program enrollment

As Table 14 shows, there was a decrease in the sum of services used in all categories. The change in three categories, ED visits, IP stays, and Chronic High-Cost visits, were statistically significant at the .05 level.

Table 14. Service Utilization – By category – All inactive enrollees (N=510)

Utilization Types	Pre	Post	Difference	% Difference
• **ED Visits**	2,866	2,120	746	26% decrease*
• **IP Visits**	375	218	157	42% decrease*
• **Chronic High-Cost**	451	233	218	48% decrease*
• **Outpatient**	2,526	2,268	258	10% decrease

*Statistically significant decrease at the .05 level.

The table below shows the sum of services used among 'high utilizers.' We applied the same definition of 'high utilizers' being used by the Department of Health Care Services for CalAIM, which includes enrollees with five or more emergency departments visits in the six consecutive months prior to enrolling in Pathways.

[12] "Five or more emergency room visits in a six month period" (See https://www.dhcs.ca.gov/provgovpart/Pages/CalAIM.aspx.)

Main Finding:
Statistically significant decrease in health care utilization for '**high utilizers'** (enrollees with five or more ED visits at pre)

As Table 15 shows, there was a decrease in the total services used in all of the claims categories. The change in all categories were statistically significant at the .05 level.

Table 15. Service Utilization – By Category – 'High utilizers' (Five or more ED visits at pre)

Utilization Types	Pre	Post	Difference	% Difference
• **ED Visits (N=174)**	2,578	1,320	1,258	49% decrease*
• **IP Visits (N=20)**	251	60	191	76% decrease*
• **Chronic High-Cost (N=26)**	345	75	270	78% decrease*
• **Outpatient (N=160)**	2,204	1,480	724	33% decrease*

*Statistically significant decrease.
Note: Although a paired samples t-test showed statistically significant change from pre to post in the IP and Chronic High-Cost categories, the small sample sizes in these categories should be noted (N=20 and 26, respectively).

Although the evaluation did not have access to actual cost or charge data from the hospitals, we used data from a national study conducted by Hospital Pricing Specialists in 2020 that collected billing data from 4,500 hospitals nationally to gauge the average price of a the most common type of visit in each state, including ED room charges, lab and radiology tests, pharmacy and supply costs, and other hospital fees, including hospital staff. The California average was $2960 for an ED visit. While this may not reflect actual charges in Sacramento, it serves as a proxy charge to demonstrate the magnitude of change in pre-post charges for Pathways enrollees. Table 16 shows an estimated 26% decrease in ED visits for all Pathways enrollees and a 49% decrease for the high utilizers.

Table 16. ED Visit Charges for All and High Utilizers

ED Visit Charges	Pre	Post	Difference	% Difference
• **ED Visits – All Enrollees (N=510)**	$8,483,360.00	$6,275,200.00	$2,208,160.00	26% decrease
• **ED Visits – High Utilizers (N=174)**	$7,630,880.00	$3,907,200.00	$3,723,680.00	49% decrease

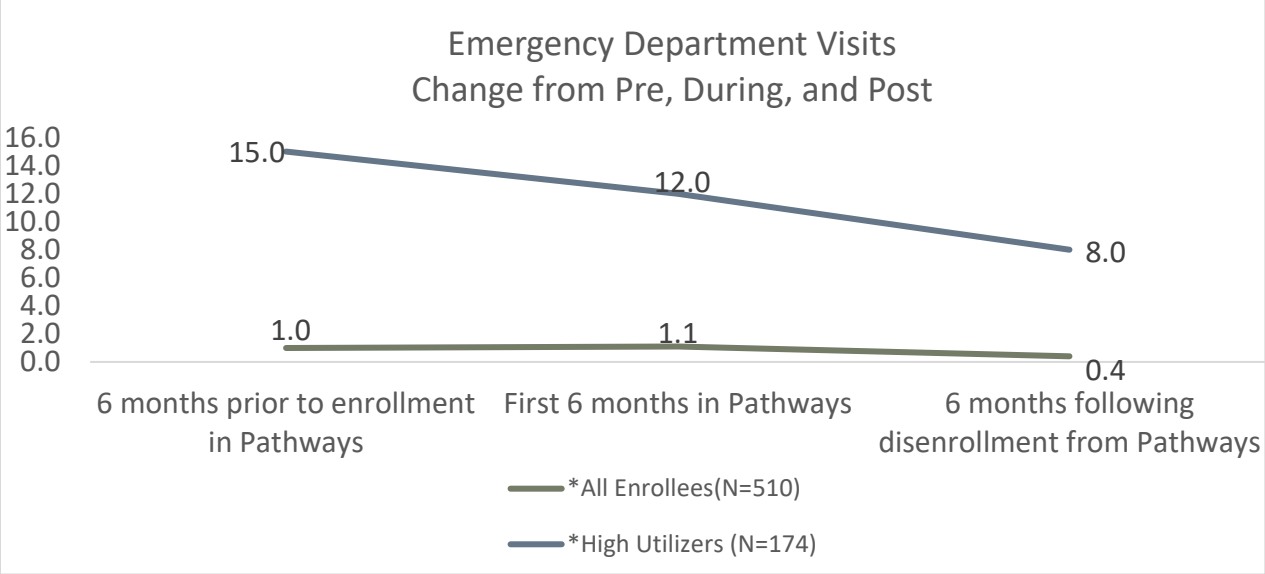
Average Emergency Department Visits – Pre, During, and Post

The figure below shows the average number of ED visits among all enrollees and 'high utilizers' at three points in time: (1) pre, in the six consecutive months prior to enrollment in Pathways; (2) during, in the first six months of enrollment in Pathways; and (3) post, in the six months following disenrollment from Pathways. As can be seen, there was a decrease in the sum of ED visits from pre to post for all enrollees and for 'high utilizers.'

As with the housing outcome, several demographics and characteristics were examined to determine if any of these were predictive of a decrease in ED visits from pre to post. Based on

these analyses, none of the factors tested were identified as being predictive of a decrease in ED visits.

Figure 12. Emergency Department Visits – Pre, During, and Post

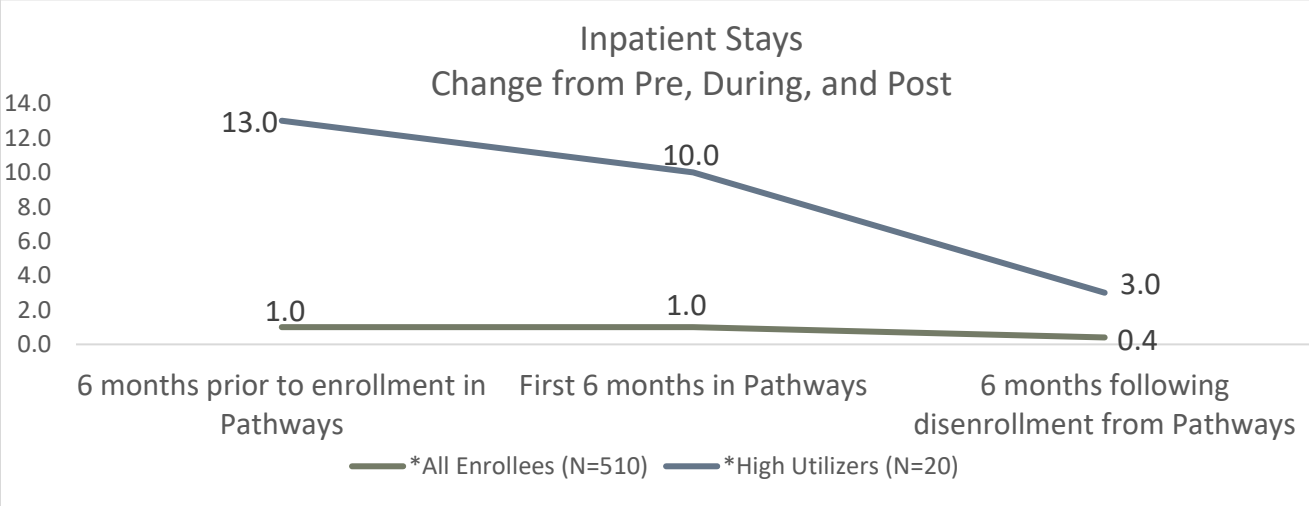


*Statistically significant decrease.

Inpatient Stays – Pre, During, and Post

The figure below shows the average number of inpatient stays among all enrollees and 'high utilizers' at three points in time: (1) pre, in the six consecutive months prior to enrollment in Pathways; (2) during, in the first six months of enrollment in Pathways; and (3) post, in the six months following disenrollment from Pathways. As can be seen, there was a decrease in the sum of inpatient stays from pre to post for all enrollees and for 'high utilizers.'

Figure 13. Inpatient Stays – Pre to during to post



*Statistically significant decrease.

Note: Although a paired samples t-test showed statistically significant change from pre to post in the IP stays, the small sample size should be noted for the high utilizer population.

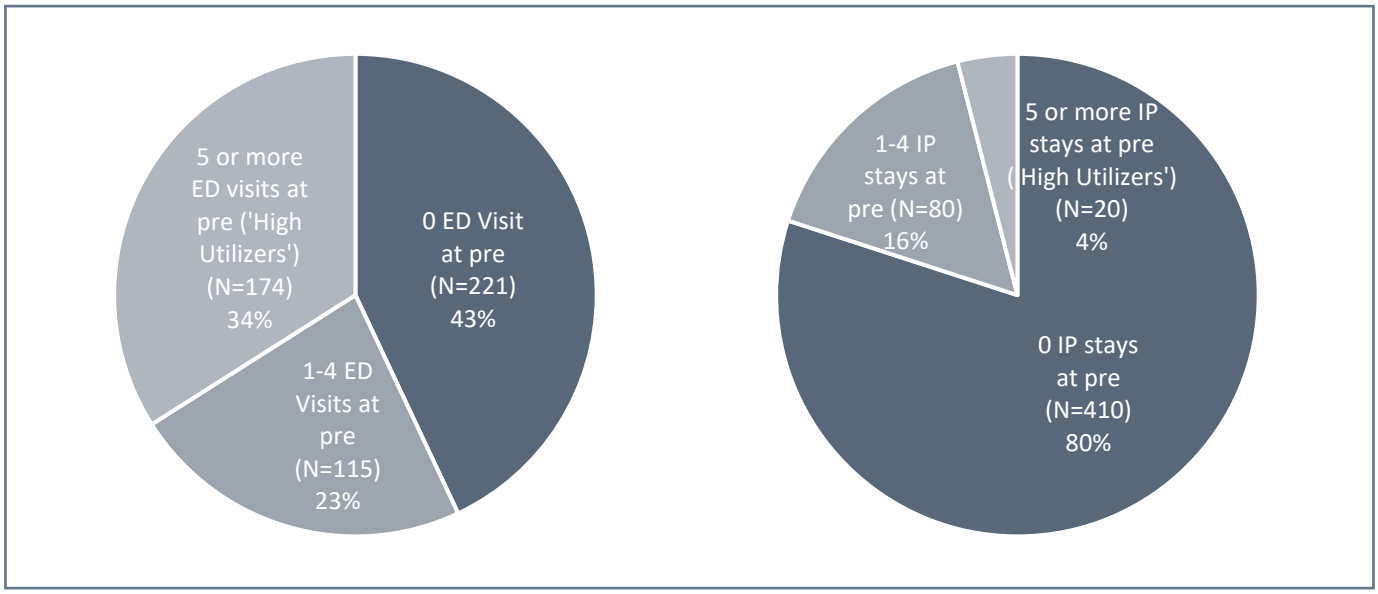
Emergency Department Visits & Inpatient Stays – Pre-Post Change

The following section is included to further our understanding of the pre and post utilization patterns for different populations of enrollees based on pre utilization rates.[13] Because a number of enrollees *did not* have ED visits and/or IP stays prior to referral and enrollment in Pathways, it is important to understand if this population maintained this low utilization trend after they exited the program.

In addition, for enrollees *who did* have ED visits and/or IP visits at pre, it becomes equally important to understand how many of these had a decrease or an increase from pre to post, and, in particular, to understand the patterns of change for 'high utilizers.'

Figure 14 show the percentage of inactive enrollees who had zero ED or IP visits prior to Pathways enrollment, who had between one and four visits before enrollment, and those who were considered 'high utilizers,' with five or more ED or IP visits in the six months prior to Pathways enrollment. Nearly half (43%, N=174) of Pathways disenrolled enrollees were 'high utilizers' of emergency departments, meaning these enrollees had five or more ED visits in the six months prior to enrolling in Pathways. This number was much lower for IP stays (4%, N=20).

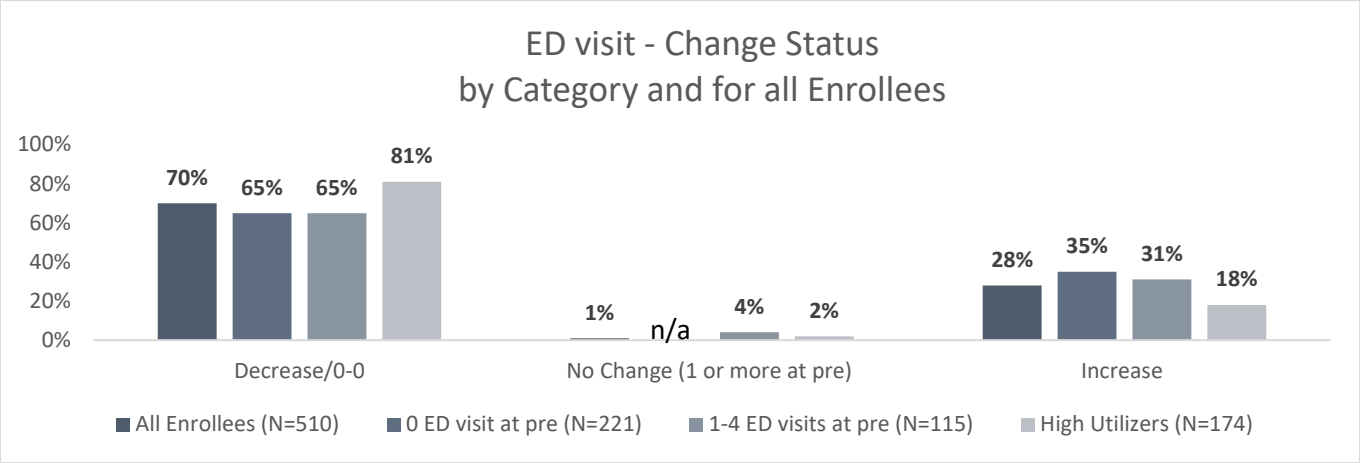
Figure 14. Pre ED and IP utilization rates – Enrollees with pre and post utilization data (N=510)



While there was great variability in the pre-Pathways ED utilization patterns of Pathways enrollees, most high utilizers (81%) showed a decrease in utilization at the end of the program. And those with no utilization prior to the program maintained low level of ED utilization after leaving the program.

[13] As with previous analyses of health care utilization, 'pre' refers to utilization enrollees had in the six months prior to enrollment in Pathways.

Figure 15. ED Utilization Outcome – Change status (N=510)



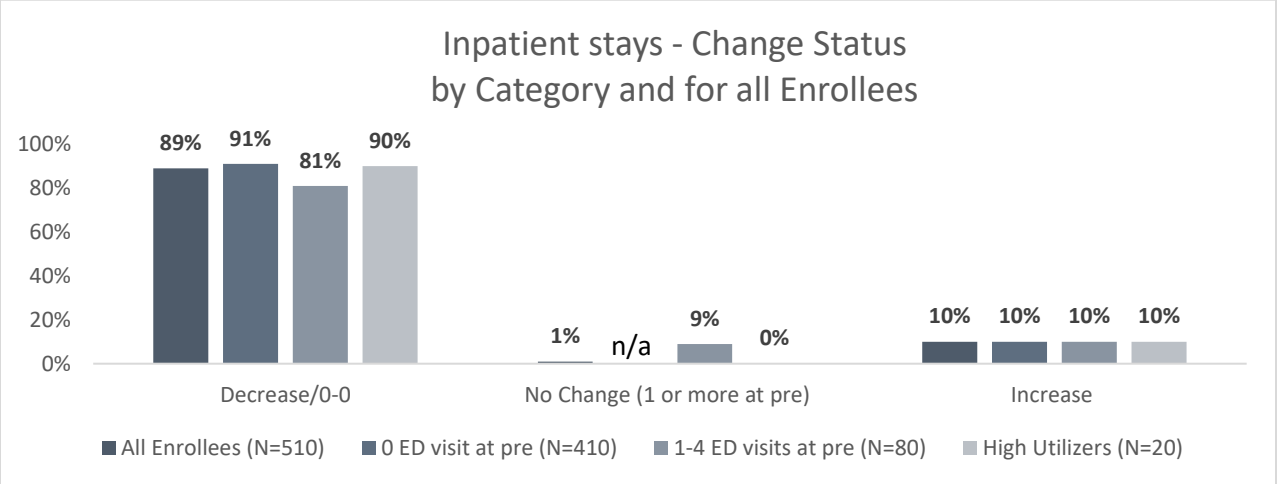
As shown in Table 17, of the 221 enrollees with no ED visits in the pre-enrollment period, 65% maintained this low utilization level at the end of the program, which is a positive outcome given the acuity and complexity of this population.

Table 17. Pre-Post Utilization among Enrollees with No ED Visits at Pre (N=221)

	Frequency	Percentage
No Change (0-0)	143	65%
Increase	78	35%

As Figure 16 and Table 18 show, most enrollees, regardless of their pre-Pathways inpatient utilization, experienced a decrease in or low inpatient utilization after leaving the program.

Figure 16. Pre-Post Inpatient Utilization Change (N=510)



A majority of enrollees (80%, N=410) had no inpatient stays prior to entering the program and more than ninety percent of these had no inpatient utilization at the end of the program.

Table 18. Pre-Post Inpatient Utilization Change (Enrollees with No Pre-Period Inpatient Stays (N=410))

	Frequency	Percentage
No Change (0-0)	371	91%
Increase	39	10%

VIII. Lessons Learned from the WPC Pilot

Cross-Sector Communication Among Pathways Service Providers

A major program component of the Pathways to Health + Home model is communication and coordination of care across health care, housing services and field-based outreach provider teams. Prior to Pathways, health and housing service providers rarely had knowledge of or communicated about shared clients. The Pathways to Health + Home model created an opportunity for providers from different sectors and organizations to engage in routine and frequent communication about shared clients, and to share information to address challenges and achieve positive outcomes on common goals.

To understand provider experiences, successes and challenges related to care coordination encountered throughout the program period, a survey was administered to staff across all contracted Pathways service partners.

The goal of the survey was to gain insight into the staff members' perceptions and experiences of cross-sector communication and information sharing and to identify any challenges or continued barriers to care coordination (both internal and external). In addition, the survey was designed to shed light on program successes that staff directly linked to the result of enhanced coordination of care between health, housing, and outreach workers.

"Sometimes our patients are difficult to connect with and communicating with the CHWs and Housing Locators helps the Care Managers locate patients and get them the healthcare they need."
-Pathways Outreach Provider

A total of 42 staff completed the survey and an overview of respondent characteristics is provided below. Most of the respondents (45%, N=19) were outreach workers (from Sacramento Covered) or program staff from the health care Hubs (Elica Health Centers, One Community Health, Sacramento Native American Health Center, or WellSpace Health) (38%, N=16).

Table 19. Pathways Partner Respondents – Provider types

Respondent Characteristics (N=42) – Provider Types		
Hubs	Housing Provider	Outreach Providers
38% (N=16)	17% (N=7)	45% (N=19)

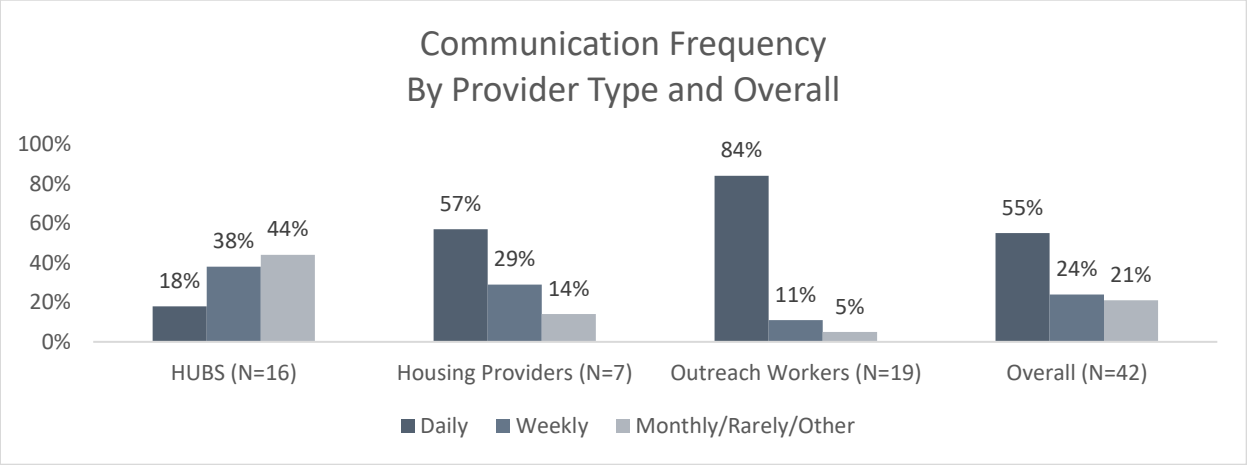
Table 20. Pathways Partner Respondents – Program roles

Respondent Characteristics (N=42) – Provider Types			
Case Manager	Community Health Worker (CHW)	Supervisor/Director/ Executive Director	Other*
29% (N=12)	38% (N=16)	17% (N=7)	17% (N=7)

*Other includes housing (unspecified), housing locator, primary care provider, nurse, retention specialist.

Frequency of communication. Figure 17 shows the frequency of communication with other service providers. On average, across all provider types, 55% of respondents reported daily communication, although there was variation across provider types. Outreach workers overwhelmingly reported communicating on a daily basis (84%). Among Hub respondents, 18% reported daily communication, the lowest rating between the different provider types.

Figure 17. Pathways Partner Respondents' Perceptions of Communication Frequency



Value of communication for care coordination. Table 21 presents responses to questions about the value of communication in care coordination. Data are reported overall and by program role. To rate the value of communication with other partners, respondents were asked to select a response to the following question on a 4-point scale (Scale: (1) *extremely valuable*, (2) *valuable*, (3) *somewhat valuable*, (4) *not at all valuable*):

Question: 'How would you rate the benefit of having regular (i.e., weekly) communication among Pathways partners to coordinate services for clients?'

Most respondents (Hubs 88%, Housing 88%, and Outreach95%, respectively) found communication to be extremely valuable or valuable. None of the respondents found communication to be 'not at all valuable.'

Table 21. Pathways Partner Respondents – Value of communication – by Provider type

Value of communication rating – By Provider Type			
Provider Type	**Extremely valuable/ valuable**	**Somewhat valuable**	**Not at all valuable**
Hubs (N=12)	88% (N=14)	13% (N=2)	0% (N=0)
Housing providers (n=7)	88% (N=7)	0% (N=0)	0% (N=0)
Outreach Workers (N=18)	95% (N=18)	5% (N=1)	0% (N=0)
All	93% (N=39)	7% (N=3)	0% (N=0)

Examples of how communication leads to improved care coordination. In addition to rating the value of communication, respondents were asked to explain their ratings using examples from client experiences. The most common themes include: communicating changes in client status and location; working collaboratively on housing and health goals rather than in silos; creating a unified front with the client to reinforce messages and eliminate miscommunication; and updating partners on changes to services, programs, shelter openings available in the community.

Below are selected responses that illustrate concrete ways that communication between Pathways partners enhanced service delivery.

"The value of regular communication with Pathways partners facilitates reaching client housing goals in several ways such as providing assistance with documentation (CA ID, social security cards), finding clients that may be MIA and regular communication maintains vital information and updates on client status."

- Respondent from Housing Provider

"It's vital to have regular communication among Pathways partners because the client's wellbeing depends on cooperation between partners. Housing, medical, and outreach have to work together to ensure the client's needs are met, which is why communication is crucial!"

- Respondent from Outreach Provider

"I feel working together created a unified front for the client and also eliminates miscommunication and provides benefits and correct goal setting if we all work together with what the client is expressing as goals they are ready to achieve."

- Respondent from Hub

"There is constant changes and updates in programs so communicating weekly allows us to be updated on new changes and provide the updated services to our clients."

– Respondent from Housing Provider

Pathways increased communication between health and housing providers. In addition to rating their own experiences in Pathways, respondents were asked to share their perceptions of whether or not the Pathways program increased communication between housing and health providers in general. Respondents were asked to rate the following statement on a 5-point scale (Scale: (1) *agree*, (2) *somewhat agree*, (3) *Don't know*, (4) *somewhat disagree, (5) disagree*):

Statement: 'Pathways has increased the communication and coordination between health and housing providers.'

Overall, a large majority either agreed or somewhat agreed with the statement (83%). Responses to this statement varied more than responses to previous statements (See above). A small majority of housing provider and outreach workers (57% and 53%, respectively) agreed that Pathways has had a lasting impact by increasing the communication between partners. Several Hub respondents somewhat disagreed with the statement above (20%, N=3).

Table 22. Pathways Partner Responses – 'Pathways has increased the communication and coordination between health and housing providers' – By provider type and overall

Communication as a result of Pathways – By Provider Type					
Program Role	**Agree**	**Somewhat agree**	**Don't know**	**Somewhat disagree**	**Disagree**
Hubs (N=15)	40% (N=6)	27% (N=4)	13% (N=2)	20% (N=3)	0% (N=0)
Housing Providers (N=7)	57% (N=4)	29% (N=2)	14% (N=1)	0% (N=0)	0% (N=0)
Outreach Workers (N=19)	53% (N=10)	42% (N=8)	5% (N=1)	0% (N=0)	0% (N=0)
All	49% (N=20)	34% (N=14)	10% (N=4)	7% (N=3)	0% (N=0)

Note: one case manager did not respond to this question.

Effectiveness of the Pathways to Health + Homes Model

Providers were asked about the effectiveness of the Pathways model in helping individuals achieve their health and housing goals. The following statements about the effectiveness of the Pathways to Health + Home model were rated by respondents.

Statements:
- 'Pathways is an effective approach to help individuals experiencing homelessness access health and behavioral health care services.'
- 'Pathways is an effective approach to help individuals experiencing homelessness to stabilize or improve their housing situation.'

The vast majority (83%) of providers across the three provider types believe that the Pathways model is an effective approach to helping individuals access health and behavioral

health services and 76% agree the model is an effective approach to stabilize or improve an individual's housing situation.

Table 23. Pathways Partner Responses – *Effectiveness – accessing health and behavioral health services* – By provider type and overall

Communication as a result of Pathways – By Provider Type					
Program Role	**Agree**	**Somewhat agree**	**Don't know**	**Somewhat disagree**	**Disagree**
Hubs (N=16)	81% (N=13)	19% (N=3)	0% (N=0)	0% (N=0)	0% (N=0)
Housing Providers (N=7)	71% (N=5)	14% (N=1)	0% (N=0)	0% (N=0)	14% (N=1)
Outreach Workers (N=19)	90% (N=17)	11% (N=2)	0% (N=0)	0% (N=0)	0% (N=0)
All	83% (N=35)	14% (N=6)	0% (N=0)	0% (N=0)	2% (N=1)

Note: one case manager did not respond to this question.

Table 24. Pathways Partner Responses – *Effectiveness – stabilizing/improving housing situation* – By provider type and overall

Communication as a result of Pathways – By Provider Type					
Program Role	**Agree**	**Somewhat agree**	**Don't know**	**Somewhat disagree**	**Disagree**
Hubs (N=16)	69% (N=11)	19% (N=3)	0% (N=0)	13% (N=2)	0% (N=0)
Housing Providers (N=7)	71% (N=5)	14% (N=1)	0% (N=0)	14% (N=1)	0% (N=0)1)
Outreach Workers (N=19)	84% (N=16)	16% (N=3)	0% (N=0)	0% (N=0)	0% (N=0)
All	76% (N=32)	17% (N=7)	0% (N=0)	7% (N=3)	0% (N=0))

Note: one case manager did not respond to this question.

Care Coordination Successes

Pathways service providers were asked to share an example of how care coordination and communication across organizational partners led to a client success. Some of the themes that emerged from these client experiences included: Coordination around hospital discharge and transitions between care settings; expediting access to medical and behavioral health services; coordinating medical follow up and logistics following surgery to ensure continuity and quality of care; and coordination between shelter moves during the COVID pandemic.

Care Coordination Success Story

"A client who is assigned to Sacramento Covered for housing was in the hospital and we were unable to place him in a Room + Board (R+B) at the time. Myself and his WellSpace Health CHW were in constant communication both over-the-phone and through our notes in the Shared Care Plan portal so we always knew how things were going with the client at the hospital. I was gone when the client was discharged, but because his WSH CHW was aware of his health and housing situation at the time, she was able to work with the discharge staff at the hospital to get the client placed at a R+B. The client is very happy living there temporarily and feels much less isolated than when he was staying with family who neglected him. He has great housemates who look out for him and provide opportunities to socialize with others." – Pathways Outreach Provider

Care Coordination Success Story

"During our morning Pathways Huddles, a patient needed to see medical services immediately. After the call was over, we were able to see the patient within 2 hours and get all the services they needed that day: medical, case management, and referrals as needed for Alcohol and Drug treatment. We were able to expedite the service since we were all on the same call and working together to accomplish the goal."– Hub Provider

Care Coordination Success Story

"I had a client who was in a Covid Temporary shelter and needed surgery and had to have someone there with him after surgery for 24 hours. The client had no telephone, but I was able to talk with his housing coordinator and find out when he was scheduled to move shelters because they moved clients every two weeks to different locations. We needed to know where to send transportation to pick up the client and get Pre Covid testing before surgery over the weekend. He also had to quarantine -- his CHW was able to get him a phone and I was able to get all the transportation arrangements made. His Housing coordinator also was able to get client into a room and board so he was able to meet the criteria of having someone there with him 24 hours post surgery. The client was able to get his surgery and is doing well."
– Pathways Outreach Provider

Care Coordination Challenges

Pathways service providers were asked to share some of the biggest challenges they encounter trying to coordinate care and access to services for Pathways clients. Some of the themes that emerged include lack of affordable housing, PSH placements and shelter; barriers to shelter/housing placements for individuals with mental health and substance use issues,

criminal justice involvement or physical disabilities; having a dedicated point of contact for care coordination with health plans regarding specialty care authorization and referral follow up.

Care Coordination Challenges

"People cannot maintain hygiene and health standards without housing. There is just not enough housing available to meet the needs. So, no matter how much health care we give patients, it will usually go to waste when they go back outside to live, and their health conditions get out of control again because they have no choice."
– Hub Provider

Care Coordination Challenges

"This is a complex question because Sacramento has many challenges. From a housing perspective, we do not have enough program housing to address the special needs of the community which include individuals with mental health and addiction issues, co-occurring disorders, 290 status (felony sex offenders), and the physically disabled. We do have Permanent Supportive Housing (PSH) programs, but the needs of the current population are high and more staffing is needed. Also PSH, they don't have an exit strategy to make room for households that need the services. There is a percentage of clients in PSH who are high functioning with income but due to the housing market and waitlist, they stay in PSH. I also strongly believe we need stabilization/retention services once a household is housed. Once a household is housed, staff need to visit and be in communication regularly to create a stabilization plan and monitor any possible barrier. Having the rehousing fund has been helpful when they owe money due to do financial irresponsibly."– Housing Provider

Care Coordination Challenges

"Transportation and navigating Medi-CAL. Specifically navigating PCP referrals and insurance plans. We often don't have connections to follow up on medical referrals efficiently with clients."
– Outreach Provider

Outreach and Engagement

The Pathways population is comprised of individuals with complex health and housing histories including many being chronically homeless, living unsheltered, and changing locations frequently. One of the most significant components of the Whole Person Care projects is the significant financial investment in field-based outreach and engagement. These services account for almost 40% of all services provided during the course of implementation, and a longer length of stay in the program and higher levels of service engagement are associated with improved outcomes. However, maintaining contact with a chronically homeless population proved to be a persistent challenge. This resulted in staff losing contact with 835 enrollees (56%), prompting efforts to better understand this phenomenon.

On January 30, 2020, a focus group was conducted where Pathways staff helped shed light on the difficult task of initially engaging enrollees, maintaining contact with them, and addressing the complex needs that often stand in the way of keeping enrollees engaged, such as health crises, legal issues, missing contact information, frequent moves, etc. In conversations with the staff, it became clear that a variety of factors contributed to loss of contact, many of which were out of the control of the staff. Below are the most common reasons for loss of contact that Pathways staff shared in the focus group.

Table 25. Focus Group Responses – Loss of contact population

January 20, 2020 Focus Group Discussion – Loss of Contact Population
Disenrollment after 3 Months of No Contact. During the January 30, 2020 focus group, the following question was asked of the CHWs: "When people see that 50% of Pathways clients are disenrolled from the program due to no contact for 90 days, what do you want them to know and understand about this finding?"
Several responses were provided by focus group participants. CHWs explained two groups of clients that fall into this category of disenrolled due to no contact: 1. *Lack of initial engagement:* If the staff lose contact with a program participant before services have begun, the following barriers can lead to a '90 days of no contact' result: 1) Inaccurate/outdated or insufficient contact information provided during the referral process (i.e. phone number, living location), 2) Rapport with the program participant has not yet been established so even if staff are able to contact the program participant at a later time, the lack of service history makes re-engagement difficult. 2. *Enrollees who had previously been engaged and active in the program, but contact was lost:* The program participant may have found temporary housing (i.e. with friend or family member). Other examples of reasons include: incarceration with no determined release date, shelter placement (where staff cannot get access to the program participant), or relapse into substance use. One participant summed up the responses the following way: "There are as many reasons for clients discharging due to lack of contact as there are reasons for people becoming homeless." 3. Outreach CHWs disputed the idea that most enrollees with a '90 days of no contact' result had never been engaged in the program and instead explained that it is possible for enrollees to disappear even after being fully engaged in the program and receiving services. They further emphasized that they do not initiate disenrollment due to 90 days without contact until all options to identify the program participant have been exhausted. This includes searching for client activity and location via HMIS, clinic and hospital partners, IMPACT team, shelters, Loaves and Fishes, etc.

In addition, according to Pathways staff, many individuals in the 90 days of no contact population had at some point in time been engaged in the program. This proved to be correct,

as the average length of stay for this population was 7 months and most (52%) had a medium weekly service level (an average of one to two services per week).

Main Finding: 4 Loss of Contact Predictors:

1) Under age 50
2) Psycho-social acuity level of 3 or 4 at pre
3) Enrolled less than six months
4) Low service level (less than 1 service/week)

The following four factors[14] were found to predict loss of contact: (1) Under age 50, (2) acuity level of 3 or 4 at enrollment, (3) enrolled in Pathways less than six months, and (4) a low weekly service level (an average of less than one service per week). In addition, the loss of contact population included a higher percentage of males, although gender was not found to be a predictor.

Below are demographics and population data for the loss of contact population, compared to enrollees with other disenrollment reasons, including the various factors, listed above, that made this population differ from other disenrolled enrollees.

Figure 18. Gender – All program participants

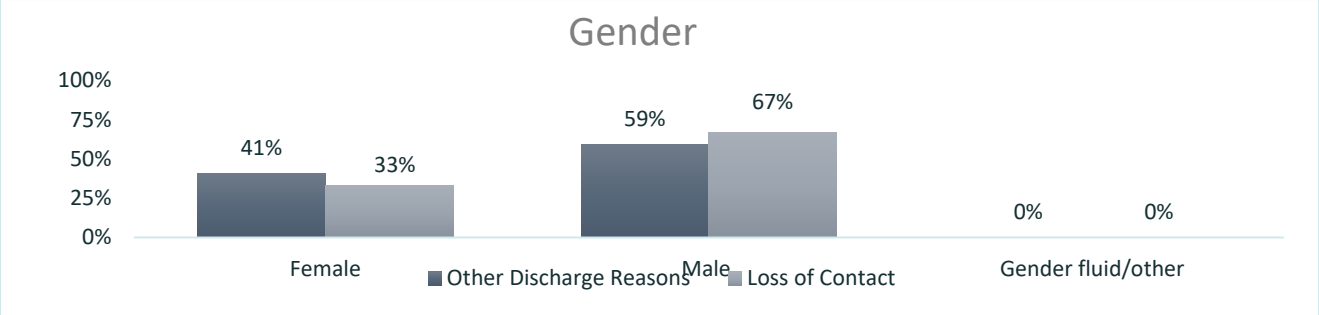


Table 26. Loss of Contact Vs. Other Discharge Reason – by Age (N=1,502)

Age Category	Loss of Contact	Other
18-49 years old (N=628)	63% (N=394)	37% (N=234)
50 years or older (N=874)	50% (N=441)	50% (N=433)

Table 27. Loss of Contact Vs. Other Discharge Reason – by Acuity level at intake (N=1,502)

Acuity Level at Enrollment	Loss of Contact	Other
Level of 1-2 (N=160)	41% (N=66)	59% (N=94)
Level of 3 or 4 (N=1,342)	57% (N=769)	43% (N=573)

[14] A binary logistic regression model was developed to test for predictive factors. The strongest predictor of loss of contact was length of stay in the program recording an odds ratio of 6.12 followed by a high service level (compared to a low service level) which was recorded at 2.0.

Table 28. Loss of Contact Vs. Other Discharge Reason – by Length of service (N=1,502)

LOS Category	Loss of Contact	Other
5 months or less (N=568)	64% (N=366)	36% (N=202)
Six months or longer (N=934)	50% (N=469)	50% (N=465)

Table 29. Loss of Contact Vs. Other Discharge Reason – by Service level (N=1,502)

Service Level	Loss of Contact	Other
Low (less than 1 service /week)	72% (N=286)	28% (N=112)
Medium (1-2 services/week)	63% (N=436)	37% (N=258)
High (3 or more services/week)	28% (N=113)	72% (N=297)

Disenrollment for '90 days w/no contact' does not mean poor outcomes. Although housing outcome data were not available for the loss of contact population, many (N=300) were continually assigned to a health plan six months prior to and following enrollment in Pathways. Below are emergency department visit pre and post data for the no contact population. As can be seen, a pre and post test revealed a statistically significant decrease in the number of emergency department visits for this population. Length of stay in the program, with a sufficient "dose" of intervention was sufficient to yield positive health care utilization outcomes despite program disenrollment.

Table 30. Emergency Department Visits – Pre and post – Loss of contact population (N=300)

Loss of Contact Population (N=300)	Pre	Post	Difference	% Difference
ED Visits	374	121	253	67% decrease*

*Statistically significant decrease.

IX. Summary of Findings

Pathways aimed to enroll at least 3,250 unduplicated individuals experiencing homelessness or at-risk of experiencing homelessness from November 1, 2017 to June 30, 2021. As of December 2020, a total of 2,216 enrollees had been served. In addition, at the time of this report, Pathways was still serving 744 enrollees, 153 of whom were admitted after January 2021 (and thus not included in this report). This means that Pathways has served a total of 2,369 enrollees to date, which is 881 enrollees short of the goal.

Main Findings:

Enrollees 	• **2,369** enrollees have been served as of July 2021
	• **394,699** face-to-face services provided
	• **89%** had a psycho-social acuity score of **3 or 4** at enrollment
	  ○ *Requiring contact from at least one of the services partners on a weekly basis*
	• **60%** Co-morbid or Tri-morbid
	  ○ *High acuity scores in two or all three of the three life areas:* ***Substance Use Disorder, Mental Health, Health***

Housing 	• 969 enrollees housed to date
	• **2 Predictors** of being housed at exit:
	  ○ Length of stay of six months or longer
	  ○ An average weekly service level of 3 or more services
	• **No disparities** in housing outcomes based on enrollee demographics and characteristics (such as race and gender)

Psycho-social acuity Scores	• **Statistically significant** decrease in psycho-social assessment scores from pre to post for enrollees who graduated
Emergency Department Visits 	• **Statistically significant** decreases in ED visits from pre to post - **For all enrollees and high utilizers** • **Statistically significant** decreases in IP stays from pre to post **- For all enrollees and high utilizers** • **No disparities** in health care utilization outcomes based on enrollee demographics and characteristics (such as race and gender)

Of the 1,502 disenrolled enrollees, housing outcome data were available for 536 individuals. Of these 536 participants, 75% (N=400) exited to a temporary or permanent housing situation. The remaining 966 disenrolled enrollees exited to unknown housing locations.
Two factors were found to contribute significantly to a positive housing outcome: **(1) at least six months of enrollment in Pathways** and **(2) a weekly service level of three or more services**. Other factors, including demographics and program characteristics such as race and gender, were assessed as possible predictors of a positive outcome. **These analyses indicated no disparities in housing outcomes based on enrollee demographics and characteristics**.

Nearly 90% of all Pathways enrollees served were considered “high acuity” at enrollment, with 1,970 individuals having an initial acuity level score of 3 or 4 (89%). For disenrolled enrollees

with pre and post psycho-social acuity assessment data (N=351), there was a **statistically significant decrease** in scores from pre to post.

Health care utilization outcomes data were available for 510 disenrolled enrollees, which included a count of claims in the six months prior to enrollment in Pathways (Pre) compared to the count in the six months following disenrollment from Pathways (Post).**There were statistically significant decreases in three of the four categories:** Emergency Department Visits, Inpatient Stays, Chronic High Cost (e.g., skilled nursing facilities, nursing facilities, end stage renal disease treatment facilities), with the percent difference ranging from 26% (Emergency Department Visits) and 48% (Chronic High Cost)[15]. In addition, decreases for enrollees with five or more ED visits in the pre-period ('High Utilizers') were statistically significant in all categories with the percent difference ranging from 33% (Outpatient) and 78% (Chronic High Cost). There were no factors identified as being predictive of a decrease in health care utilization, indicating no disparity based on enrollee demographics such as race, gender, age, thus **indicating no disparity in outcomes.**

A total of **394,699 face-to-face services and activities were logged** in the Care Management Data Platform. Most services were field-based Outreach, Enrollment, and Engagement services or Care coordination, Care Management services. Pathways staff identified three overarching themes regarding the experience of providing services to Pathways enrollees: (1) **Engagement: Trust and Rapport** (difficult, time-consuming), (2) **Effects on Staff**: Emotionally draining work (celebrating success and self-care are important), (3) **Field-based services**: Time-consuming activities (allocate time for attending appointments, housing background research, etc.)

Overarching Takeaways from Pathways to Health + Home Implementation

In addition to providing significant evidence that the Pathways program generated positive outcomes on the health, housing, stability and lives of individuals served, the evaluation provides several lessons learned that can (and should) be applied to future programs aimed at improving care coordination and outcomes for individuals experiencing homelessness. The CalAIM program is scheduled to launch in January 2022, with an expectation that knowledge about outreach, engagement, care coordination and service delivery from earlier Medicaid pilots such as Whole Person Care will be brought forward to inform implementation and support long-term success. There are numerous takeaways from the Pathways program that can be leveraged as cross-sector stakeholders prepare for the next phase of collaborative work under CalAIM.

Key Takeaways:

- The Pathways to Health + Home program was supported by a broad set of external stakeholders and partners including all four major hospital systems, four Medicaid Managed Care health plans, the City of Sacramento, County Behavioral Health Services, Sacramento

[15] Although there was also a decrease in outpatient claims from pre to post, the decrease was not found to be statistically significant.

Housing and Redevelopment Agency, and the Mayor's Office. **There was collective agreement that addressing the health, behavioral health, housing, and social service needs of a complex population experiencing chronic homelessness takes collaboration, resource investment and leadership across multiple systems of care.**

- Significant effort, resources and expertise is required to outreach and enroll this population into the program, and to maintain engagement in services. **Financial investment in field-based outreach services is a vital component of programs targeting individuals experiencing homelessness.**
- **Program participants with complex health, behavioral health, and social service needs often require frequent contact to build initial trust and understand the benefit of program involvement.** Pathways Service Partners provided a tremendous volume of direct care management services to program participants.
- **Communication, coordination, and data sharing on a regular basis between health, housing, and field-based outreach teams was at the vital core of successful engagement and outcomes with Pathways clients.** Data sharing and service tracking in a centralized database across 8 different service providers was unprecedented and widely regarded as valuable to frontline providers implementing the Pathways program.
- **The Care Management database includes robust service tracking and documentation of client demographics, health and housing goals, services, referrals and outcomes.** It facilitates communication across partners, reduces service fragmentation and duplication, and is a rich source of data for analyzing program operations and outcomes.
- **Care management supports from a clinical and field-based team have assisted clients in accessing much needed and often long awaited medical, behavioral health, and specialty care.** Despite this effort, a small portion of enrolled clients continue to use high-cost services and some died during the program.
- **The emotional toll this intensive care management work takes on frontline workers cannot be overstated.** Investments in ongoing training, supervision, self-care and taking time to celebrate success is vital to supporting the individuals helping such a vulnerable population within the community.

X. Appendix

Psycho-Social Assessment

The psycho-social assessment used in the Pathways Program was adapted from the psycho-social assessment developed by Oregon DHS.
https://apps.state.or.us/Forms/Served/de8397.pdf