Community Integration Services: Rapid Cycle Assessment 2023-Q1

MAY 26, 2023

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Overview

This brief report represents the 2023 Quarter 1 (Q1) Rapid Cycle Assessment (RCA) for Community Integration Services (CIS). This RCA report intended to examine data submitted by Health Plans (HPs) on April 30, 2023 covering the reporting period January 1, 2023–March 31, 2023. However, due to continuing data quality issues, external consulting company, Public Consulting Group (PCG) worked with HPs to revise reports to meet data standards. The University of Hawai'i evaluation (UH) team did not receive data until May 22, 2023, which was not in time to incorporate into the RCA presentation and report.

To fulfill the RCA requirement and facilitate ongoing program implementation improvement discussions, the UH team presented preliminary findings from its overall 1115 Waiver evaluation, which covers the entire course of the CIS program. During the RCA meeting, the evaluation team shared findings from various data sources, primarily focusing on compiled RCA data, H Code status data from Cognos, and Quality measures. Additional data sources for the RCA and evaluation include "data dumps" from HPs collected in Spring 2023, Homeless Management Information System (HMIS) data, interview data, and homeless service provider data.

The RCA presentation, held over Zoom on May 26th at 9am, also included implementation and reporting updates from the MQD CIS Core Team and MQD Health Analytics Office, a review of the CIS logic model, and questions from both the UH team and HPs. The next RCA presentation is scheduled for August 25, 2023, at 9am.

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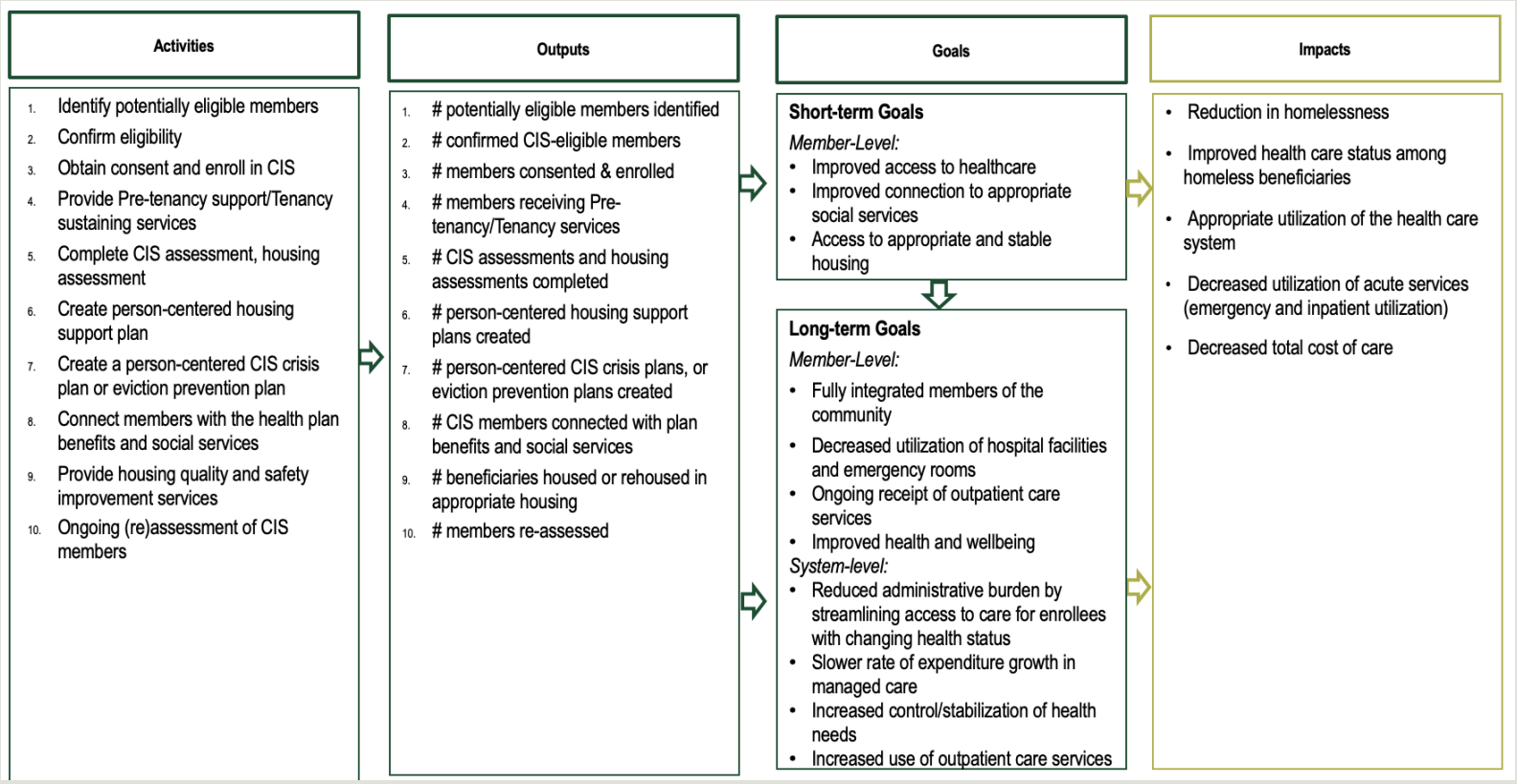
Updates from 1115 Evaluation

Each RCA and the overall 1115 Waiver evaluation is grounded in the CIS logic model (Fig. 1), developed by the UH team and MQD in 2020. This logic model details originally intended activities, outputs, goals, and impacts.

At this point in CIS implementation, the evaluation team is only able to report on "outputs" rather than long-term goals and system-level impacts of the program. The focus on process-related outputs–rather than outcomes– is an appropriate approach given the stage of program implementation, the newness of the program, and the fact that long-term goals and impacts by their very nature have delayed impact. Additionally, understanding if the program is operating as intended and documenting necessary changes are important prerequisites to understanding outcomes Thus, this RCA focuses on outputs, such as members identified as eligible, those who received services, those who exited, and characteristics of these members.

Fig. 1. CIS Logic Model



CIS Members

Using H Code status data available through Cognos, the evaluation team examined members who have been identified for CIS between 2020 and 2023. H Codes designate the status of the member in CIS and are submitted by HPs daily (See Table 1). The expectation is that members will move through H Codes, often rapidly, as they are identified as eligible, contacted, consented, and provided services (See Fig. 2).

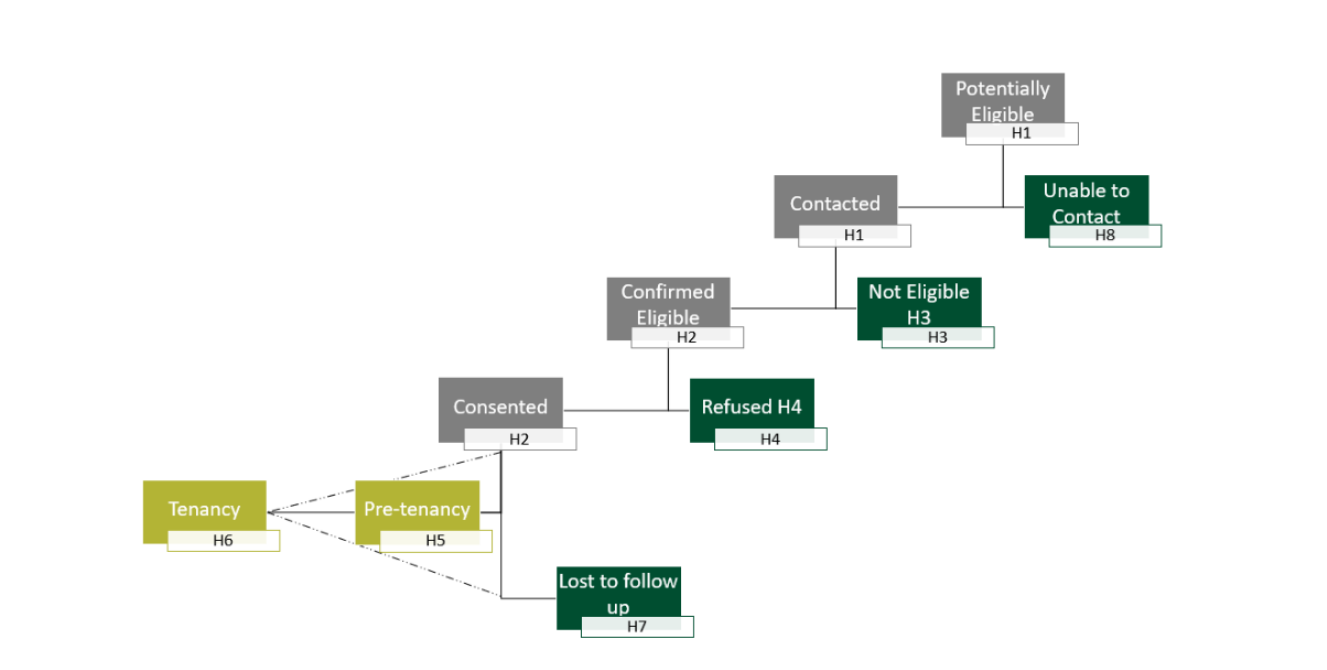
Table 1. CIS H Code Status Code Descriptions

H Code	Status Description
H1	Potentially Eligible
H2	Contacted - Eligible
H3	Contacted - Not Eligible
H4	Contacted - Eligible but Refused
H5	Consented - Receiving Pre-tenancy Services
H6	Consented - Receiving Tenancy Services
H7	Consented - Lost to Follow Up
H8	Potentially Eligible, Unable to Contact

When designing the program, MQD assumed that all members would begin at H1—potentially eligible. Members would then be contacted and confirmed eligible (H2) or ineligible (H3) or they may be unable to be contacted (H8). Once confirmed eligible, members would either consent to or refuse services (H4). For those who consented, the assumption was that these members would move into (or between) pre-tenancy (H5) and tenancy (H6). For those who received tenancy or pre-tenancy services, the only disenrollment status code was H7—lost to follow up. See Figure 2 for anticipated H Code flow.

Examining H Codes reported from 2020-2023 allowed the UH team to understand how members were flowing through the program in practice and not just in theory.

Fig. 2. CIS H Code Status Flow Chart



Initial H Codes

The evaluation team examined the flow through H Codes and found that while most CIS members (88%) did initially begin in H1–potentially eligible, 6% entered directly into Pre-tenancy (H5), 3% entered directly into confirmed eligible (H2), 2% entered directly into Tenancy (H6), and <1% entered directly into refused (H4) and Lost to follow up (H7) respectively.

Table 2. CIS Members by Initial and Final H Code (N = 4,656)

CIS Members by Current Status Code	Initial H Code		Final H Code	
	Frequency	Percent	Frequency	Percent
H1: Potentially Eligible	4,101	88.08	1,754	37.67
H2: Contacted - Eligible	127	2.73	275	5.91
H3: Contacted - Not Eligible	27	0.58	415	8.91
H4: Contacted - Eligible but Refused	10	0.21	71	1.52
H5: Consented - Pre-tenancy	259	5.56	850	18.26
H6: Housing Tenancy - Receiving Services	92	1.98	464	9.97
H7: Consented but Lost to Follow-up	7	0.15	52	1.12
H8: Potentially eligible but unable to contact	33	0.71	775	16.65
Total	4,656	100.00	4,656	100.00

Member Characteristics

In addition to understanding pathways into CIS, the evaluation team examined the characteristics of those members identified for CIS in order to determine if the program was reaching the intended population. Matching H Code status data to Quality measures, UH assessed average risk points, risk scores, and ER visits in the CIS member population as compared to the non CIS MedQUEST member. For all three measures, members enrolled in CIS in any H Code scored higher on averge than non-CIS Medicaid recipients (Fig. 3). Additionally, the team calculated the percentage of CIS members who reported homelessness and were to have high psychatric vulnerability compared to the non-CIS Medicaid recipients. CIS members reported much higher percentages of these characteristics than the average Medicaid recipient (Fig. 4). This evidence suggests that CIS is reaching the intented population–high utilizers of ERs, those experiencing mental health concerns, and those experiencing homelessness or at risk of homelessness.

Fig. 3. Average Risk Scores and ER Visits by CIS Member Status

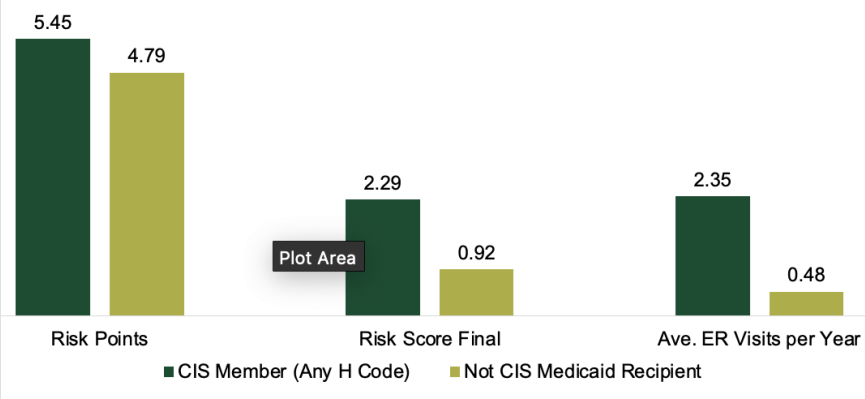
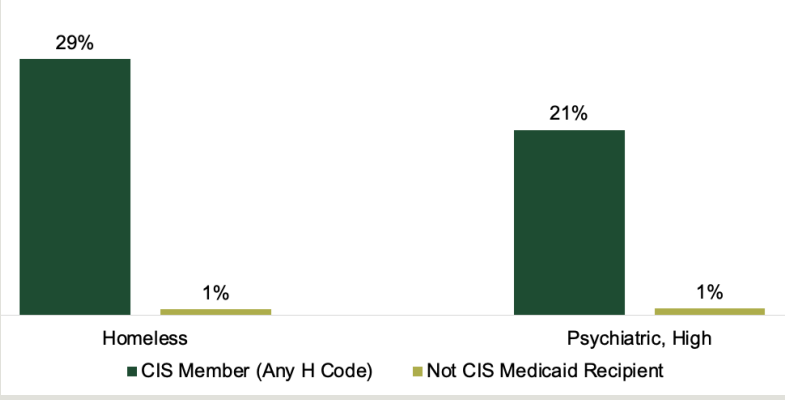


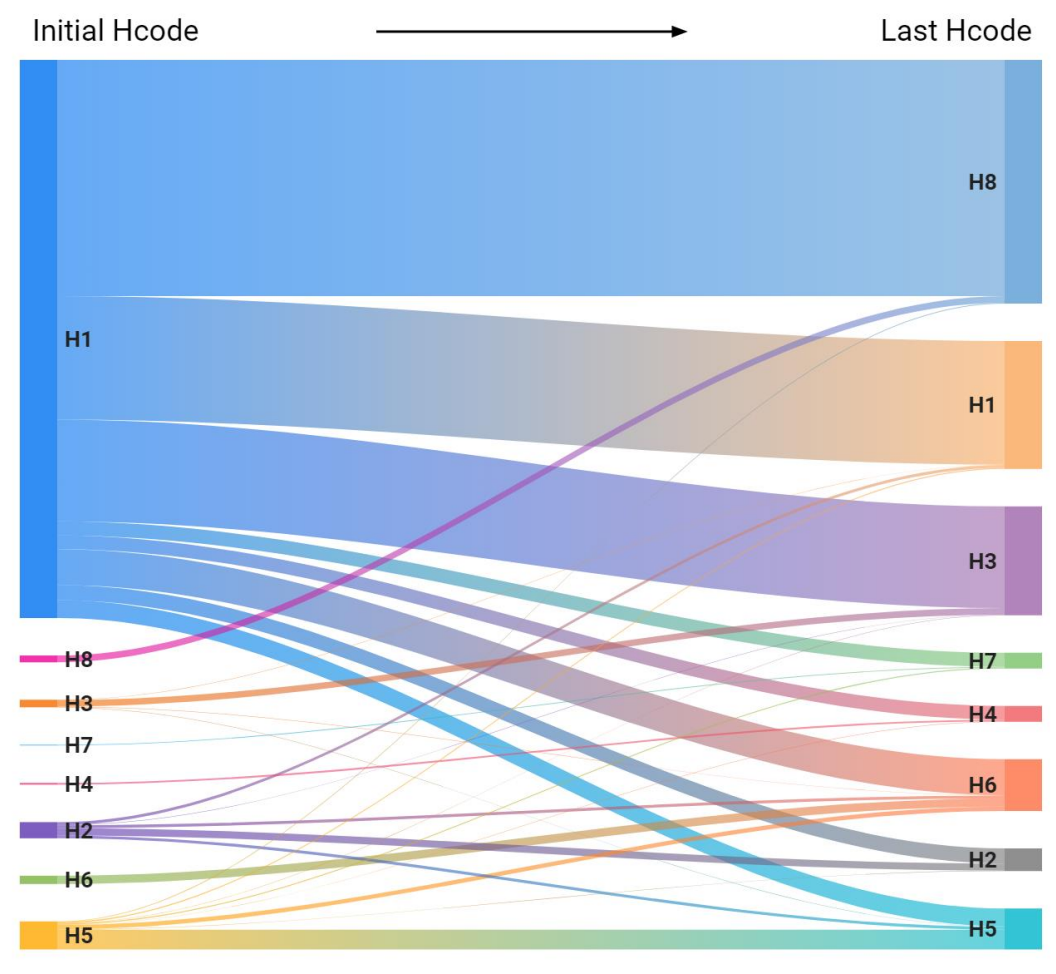
Fig. 4. % of Members Reported Homeless Status and "Psychiatric High" by CIS Member Status



Exited Members

Of the total 4,656 members identified for CIS services, 1,746 had closed H codes as of March 2023, meaning they presumably exited. A "closed" H code refers to an H code that has a listed end date for the member within COGNOS and no H Code with a start date but no end date. We examined the pathways of exited members by looking at the first and last H codes assigned to each member ever assigned an H Code (Fig. 5).

Fig. 5. Exited CIS Members by First and Last H Code (*n* = 1,746)*

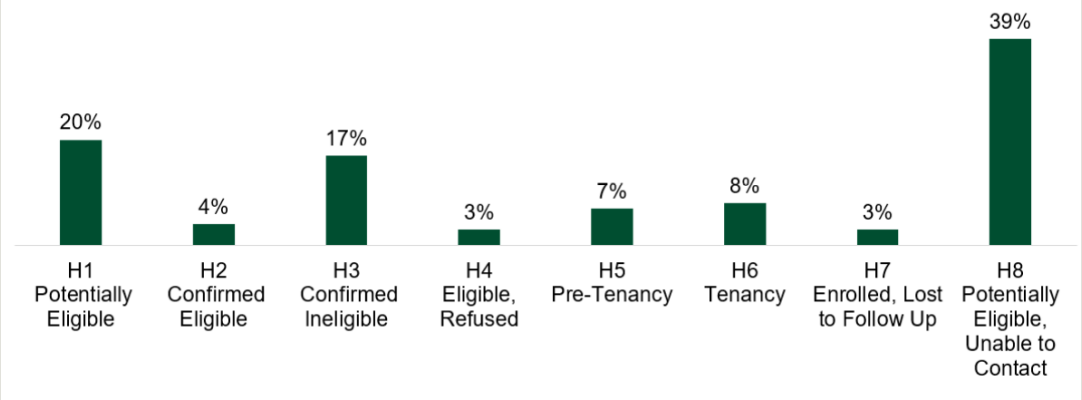


***Note that some members may have received other H code statuses while enrolled; this pathway only outlines their first and last listed H Code. The average number of H Code transitions was 1.98.*

The largest percentage of members entered in H1 ("potentially eligible") and exited either still in H1 or having moved into H8 ("unable to contact"), which is reflective of the backlog noted by HPs in both interviews and RCA reports. The largest percentage of members *exited* CIS in H8 (unable to contact, 42%). This finding lines up with previous interviews and report submissions in which HPs noted their difficulty outreaching this hard-to-reach population. Additionally, 18% of members exited as determined ineligible (H3).

Interestingly, 22% of exited members' final H Code was H1, "potentially eligible." It is unclear why a member would exit in H1 and whether this issue is reflective of a data entry error, a lag in reporting, or a change in protocol. Based on current H Code flow assumptions, members should be exiting when confirmed ineligible, they refuse services, are lost to follow up, are unable to be contacted, or have received and no longer need Tenancy services (not currently a status code). It is possible these members who begin and end in H1 were determined by HPs to be ineligible prior to being contacted. Thus, a discussion may be necessary on whether to amend H Codes to reflect what happens in practice.

Fig. 6.Percent of Exited CIS Members by Final H Code (*n* = 1,746)



Of exited members who had been in pre-tenancy, 45% were enrolled in pre-tenancy at exit, and 33% had transitioned to tenancy at exit (Table 3). It is unclear what happened to these members once they exited (i.e., were they housed at exit?). Homeless service providers indicated that only "a few" members had exited once receiving services and that these members exited because they were lost to follow up, which matches numbers showing that only 3% were lost to follow up at exit. Taken together, these findings suggest that these Final H Codes represent a lag in reporting and not actual status at exit.

Table 3. Exited CIS Members Who Reached Tenancy/Pre-Tenancy by Final H Code

		Final H Code																
		H1:Potentially Eligible		H2:Confirmed Eligible		H3: Not Eligible		H4: Eligible but Refused		H5: Housing Pre-Tenancy		H6: Housing Tenancy		H7: Lost to Follow-up		H8: Unable to Contact		Total
		n	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*
Reached H5: Pre-tenancy	No	$349_{a,d}$	23	$61_{a,d}$	4	$298_{a,d}$	20	40_{a}	3	0^{1}	0	44_{b}	3	27_{c}	2	672_{d}	45	1491
	Yes	$7_{a,d}$	3	$2_{a,d}$	1	$5_{a,d}$	2	4_{a}	2	114^{1}	45	100_{b}	39	17_{c}	7	6_{d}	2	255
	Total	356	20	63	4	303	17	44	3	114	7	144	8	44	3	678	39	1746
Reached H6: Tenancy	No	$354_{a,d}$	22	63^{1}	4	$302_{a,d}$	19	$42_{a,c}$	3	114^{1}	7	1_{b}	0	40_{c}	3	677_{d}	42	1593
	Yes	$2_{a,d}$	1	0^{1}	0	$1_{a,d}$	1	$2_{a,c}$	1	0^{1}	0	143_{b}	93	4_{c}	3	1_{d}	1	153
	Total	356	20	63	4	303	17	44	3	114	7	144	8	44	3	678	39	1746

Note: Values in the same row and subtable not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. Tests assume equal variances.
1. This category is not used in comparisons because its column proportion is equal to zero or one.
2. Tests are adjusted for all pairwise comparisons within a row of each innermost subtable using the Bonferroni correction.

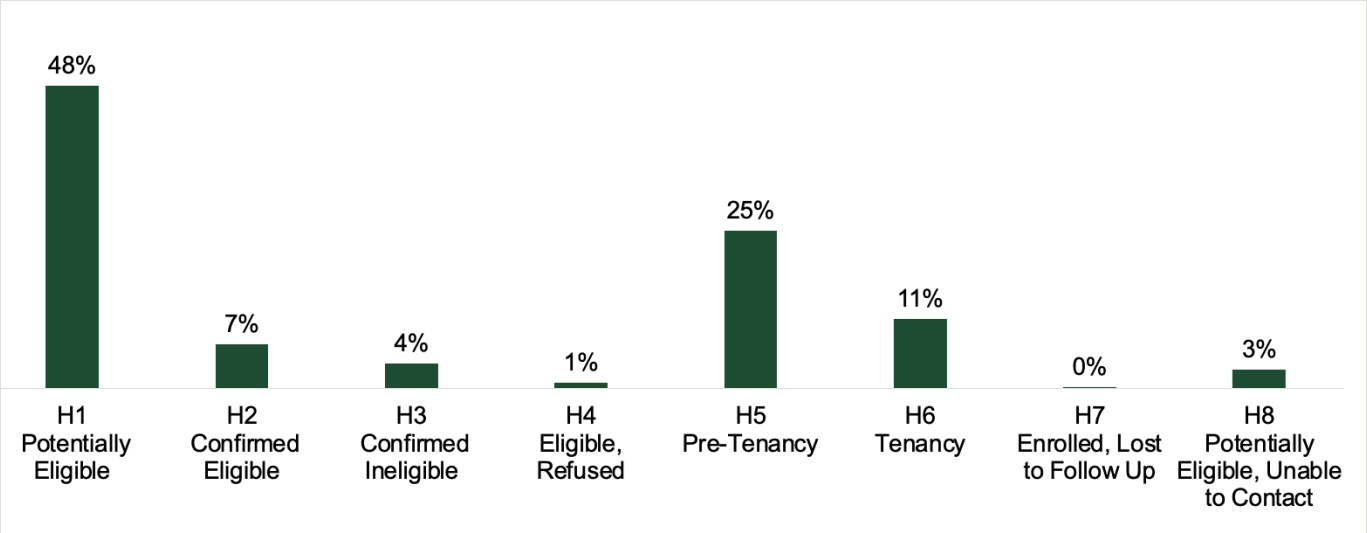
Current Members—March 2023

The evaluation team also examined CIS members with "open" H Codes as of March 2023. An "open" H Code refers to an H Code with no listed end date for the member within COGNOS. We assume these members are currently identified for or receiving CIS.

Of the total of 4,656 members identified for CIS services, 2,910 had an open H Code as of March 2023.

The majority of these members' last H Code was H1 "potentially eligible" in March 2023 (48%; see Fig. 7). Additionally, 25% were in H5 "Pre-Tenancy," and 11% were in H6 "Tenancy." Thus as of March 2023, of members with open H Codes, over a third were receiving CIS, either tenancy or pre-tenancy.

Fig. 7. Percent of Current CIS Members by Last H Code (*n* = 2,910)



CIS Recipients

Finally, evaluators used H Codes to understand how many members had received services through CIS. Between January 1, 2020, and March 2023, a total of 4,656 members were identified for CIS services (defined as being assigned any H Code during the period). Of these members, 1,396 (30%) were at some point enrolled in CIS, which the evaluation team defined as being assigned to H5 (Pre-Tenancy status) or H6 (Tenancy status; see Fig. 8).

The largest percentage of members who received services received "pre-tenancy" services. Of all CIS members, 20% had recieved *only* Pre-tenancy services (*n* = 916), 3% had recieved *only* Tenancy Services (148), and 7% had recieved *both* Pre-tenancy AND tenancy services (*n* = 332; see Fig. 9).

Fig. 8. Percent of Members with Any H Code who Received CIS Services (*N*=4,656)

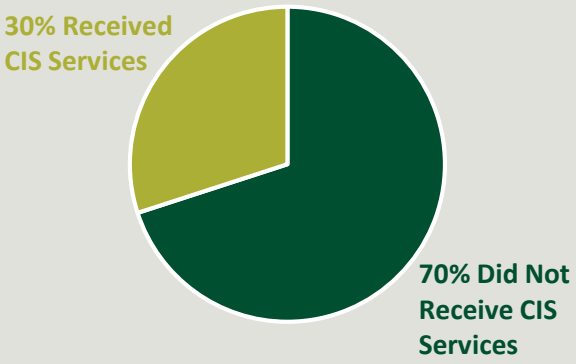
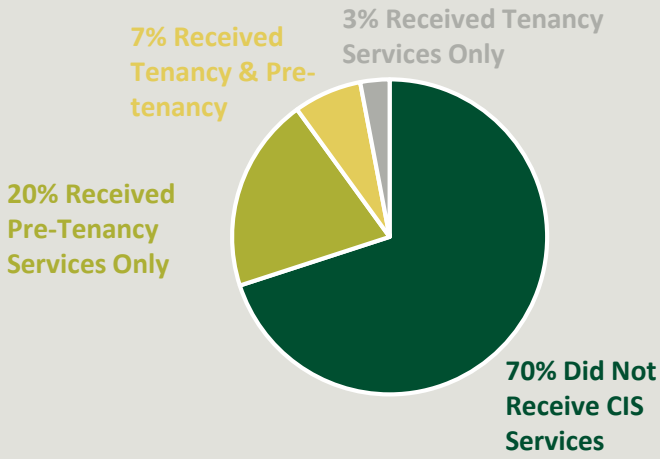
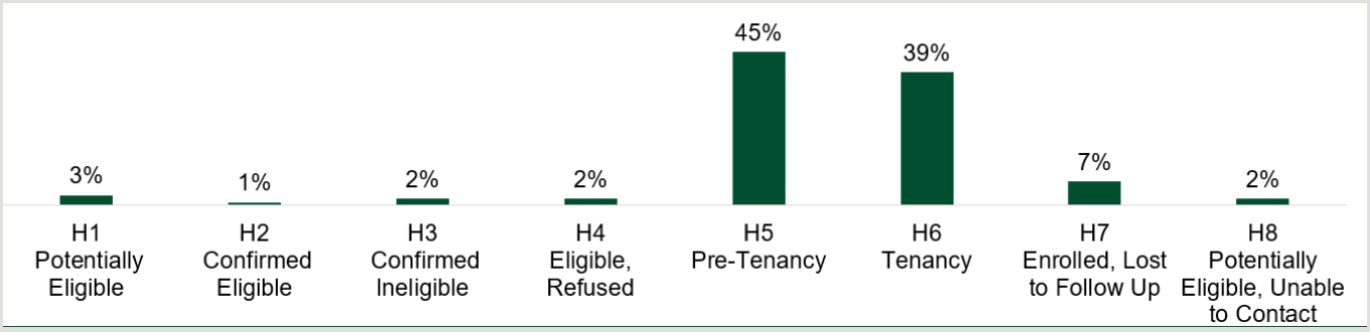


Fig. 9. Percent of Members with Any H Code who Received CIS Services by Service Type (*N*=4,656)



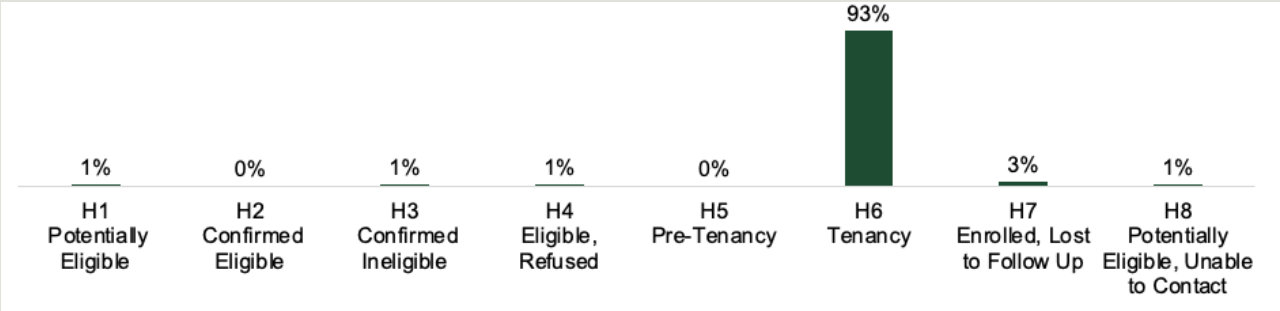
Of all members who had recieved pre-tenancy services (*n* = 1,248), 20% (n = 255) have exited CIS. Upon exit, 45% were in Pre-tenancy (H5) as their final H Code, while 39% were in Tenancy (H6) as their final H Code.

Fig. 10. Percent of Exited Pre-Tenancy Members by Final H Code (*n* = 255)



Of all members who had recieved tenancy services (*n* = 480), 32% have exited CIS. The majority (93%) were listed in Tenancy (H6) upon exit from the program.

Fig. 11. % of Exited Tenancy CIS Members by Final H Code (*n* = 153)



Recipients with Assessment Data

Of the 1,396 members who have received tenancy or pre-tenancy services, only 335 have some sort of assessment data (first assessment, reassessment, or both). Of those, 228 have first assessment data and 144 have re-assessment data. Of these, 152 have substntial missing data or data missing on key indicators for measuring CIS.

Zooming in on the reassessment data, 99 have substantial missing data for key indicators for measuring CIS. Concerningly, 83 of the 144 members with reassessments do not have any first assessment data. The evaluation team does not know whether this is an error in labeling (data was actually first assessment but labeled as reassessment), error in reporting (first assessment was completed but not logged or submitted to evaluation team), or another error in data reporting or implementation.

Fig. 12. % of CIS Recipients with First Assessment Data (*n* = 1,396)

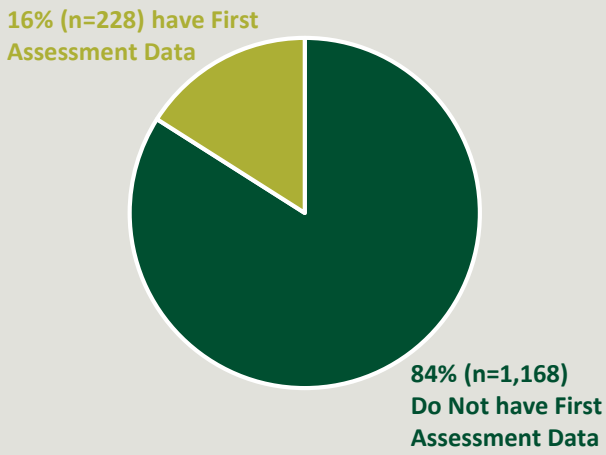
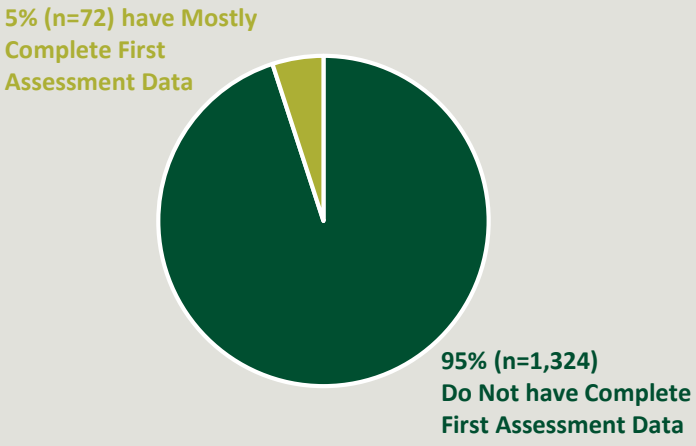


Fig.13. % of CIS Recipients with Complete First Assessment Data (*n* = 1,396)



CIS Member Characteristics

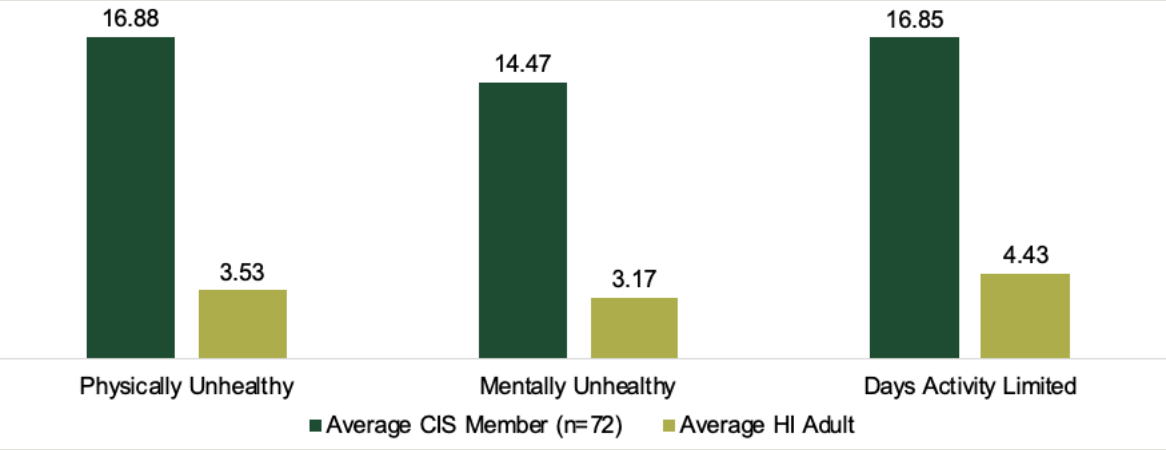
Self Reported Health

To understand self-reported health of CIS members, the evaluation team analyzed self-reported Healthy Days data captured in the CIS Assessment. Because Healthy Days data is collected at the state and national levels, the evaluation team is able to compare the average CIS member to the average Hawai'i or U.S. Adult.

This RCA examined the number of unhealthy days reported by CIS members at the time of their first assessment compared to the average Hawai'i adult. For the average CIS member, in the previous 30 days, they reported feeling mentally and physically unwell approximately half of the days and indicated that their activity was limited due to these health concerns for 16.85 days on average. These averages were much higher than the average Hawai'i adult, who report on average 3-4 unhealthy days in the last 30 days.

These numbers further suggest that CIS seems to be reaching the intented population: those with severe physical or mental health conditions who are likely to be high utilizers of emergency services.

Fig. 14. Average Number of Unhealthy Days Reported by CIS Recipients in Last 30 Days at First Assessment Compared to Average Hawaii Adult*



*U.S. Centers for Disease Control. (2021). Behavioral Risk Factor Surveillance System (BRFSS) 2021.

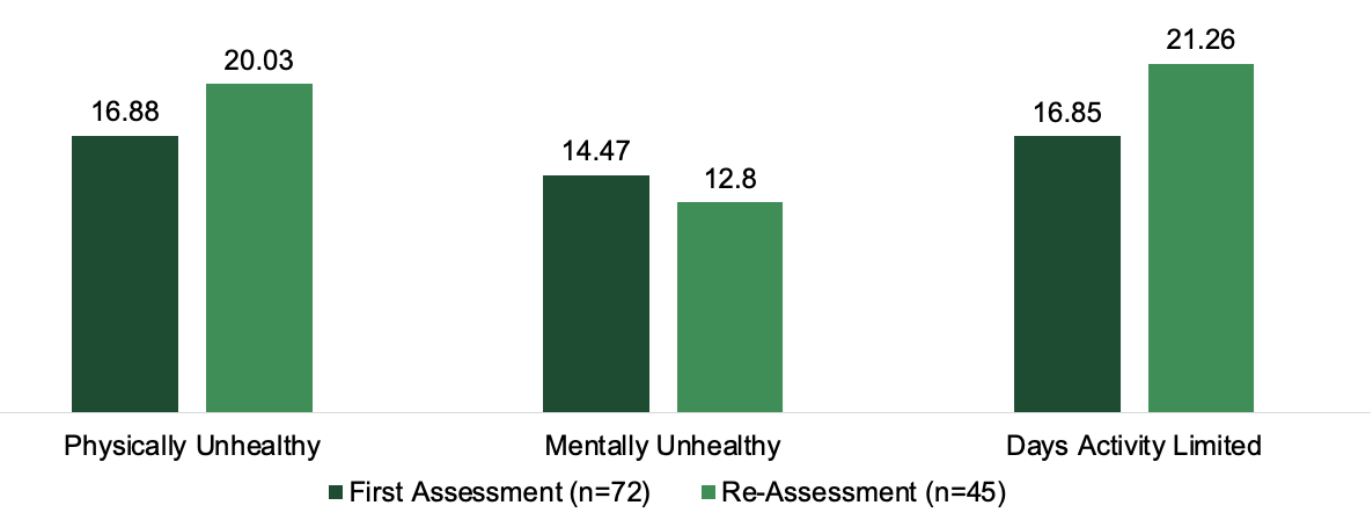
Changes in Self Reported Health

Healthy Days measures also allow the evaluation team to assess changes over time for CIS members receiving services and quarterly assessments. Although the numbers of reassessments were low, and the data was of questionable validity, the team presented changes in self-reported health between a CIS member's first assessment and their re-assessment to demonstrate what could be done with these type of data (Fig. 15).

This data suggests that physical health, on average, slightly increased (approximately 16 out of 30 days to approximately 20 out of 30 days) for members between first assessment and reassessment. Mental health slightly decreased (approximately 14 out of 30 days to approximately 12 out of 30 days) for members between first assessment and reassessment. Finally, members reported slightly more unhealthy days limiting activity (16 out of 30 days to 21 out of 30 days) between first assessment and reassessment.

Because of data validity concerns and vast amounts of missing data, the evaluation team **emphasizes that the inclusion of this graph is merely to demonstrate the importance of data completion, reliability, and validity.** The more reliable the data, the more it can accurately assess the impacts of CIS on members' health over time.

Fig. 15. Average Number of Unhealthy Days Reported by CIS Recipients in Last 30 Days at First and Re-Assessments



Summary

1. Data suggests that CIS is identifying members with complex physical and mental health needs who are high utilizers of emergency services and are homeless or at risk of homelessness—the program's intended population.

2. Data submitted through RCAs, COGNOS, and Quality Measures suggest that about 30% of people potentially eligible for CIS end up receiving Pre-Tenancy services, Tenancy services, or both.

3. Members who receive tenancy (H6) tend to stay housed as seen through member's final H Code upon exit. A small percentage of those in pre-tenancy (H5) have moved into tenancy services (H6) prior to exiting the program. Data suggests about 45% of pre-tenancy members exit without stable housing meaning their final H code upon exit is H5. However, it is unclear if these closed H Codes actually reflect exits or a lag in reporting. Perhaps most importantly, these H Codes do not give us more detailed information about exit destinations or housing status at exit.

4. At this time, it is Unclear what, if any, impacts CIS is having on health, emergency services utilization, and housing outcomes. Much of the data received by the evaluation team is incomplete and of questionable quality. Additionally, the program has not been running long enough to assess the long-term impacts and goals of CIS.

Recommendations

The CIS Team noted specific issues with data quality and submission that would help us to evaluate the progress of the CIS program. Notably:

1. Clarifying H-Codes: The current assumptions of the H Code status flow do not seem to reflect what occurs in practice. This discrepancy limits our ability to measure certain KPIs such as the percentage of people confirmed eligible that receive services because not all members go through all H Codes in the anticipated order.
2. Collecting Exit Location Data: Currently, the program does not have a system for measuring two important indicators—housing status (was the member housed?) and exit destination (where did the member exit to and why?). For example, if a member is exiting in H5 (pre-tenancy) we do not know if they are exiting because they found housing and no longer need to be enrolled in CIS or if they disenrolled for another reason. This information is crucial to understanding program success given that stable housing is an assumed outcome.
3. Missing Assessment Data: In the assessment data that has been submitted through the RCAs and Data Dumps, only a small number of members have any assessments and an even smaller amount have completed assessments. Additionally, some members only have re-assessments with no first assessments. This missing data makes it difficult to evaluate change in member health status over time and thus, the impact of the program on health.

By continuing to improve upon the data quality and submissions from HPs, the evaluation team will be able to accurately report on both program outputs and outcomes, which can be used to inform program implementation for some of the State's most vulnerable Medicaid members.