Familiar Faces: An Illustrative Study Regarding the Cost of Homelessness in Linn County

Linn County Public Awareness Committee & Willis Dady Homeless Services

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The scope of this study required us to obtain information from a wide variety of agencies and organizations. For some of these providers, it took a considerable amount of time and effort to acquire the appropriate data. We appreciate their willingness to overcome these barriers. Special thanks goes to:

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- Area Ambulance
- Cedar Rapids Police Department
- Community Health Free Clinic
- Ecumenical Community Center
- Foundation 2
- His Hands Free Clinic
- Horizons
- Linn County MH/DS
- Salvation Army
- UnityPoint Health

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- Cedar Rapids Community School District
- City of Cedar Rapids
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- Eastern Iowa Health Center
- Four Oaks
- Hawkeye Area Community Action Program
- Linn County General Assistance
- Mercy Medical Center
- Waypoint Services
- Willis Dady Homeless Services

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Executive Summary

Linn County, Iowa, has been tracking the number of individuals and families experiencing homelessness for years. This is the first study that looks directly at the costs of persistent homelessness locally. The study finds that for some individuals the costs of being homeless can be extraordinarily expensive. However, with appropriate housing interventions, these costs can dramatically decrease.

This project explores the financial costs associated with persistent homelessness by studying the lives of eight individuals in Linn County. Researchers worked with participants who had primarily lived in Linn County from July 2013 to June 2018, and who experienced a minimum of one year of homelessness during that period. Through interviews, researchers established participant's monthly housing history and gained access to participant's medical and social services records.

In total, for all eight participants during the study's timeframe, it cost the local community over **$1,200,000** (Figure 4) to provide services for individuals while they were experiencing homelessness. This amounts to an average of **$5,017** per person per month (Figure 5). However, when these individuals were stably housed the costs associated with their service utilization only averaged to **$263** per person per month. This is a decrease of an average of **$4,754** per person per month.

When participants' housing situations improved to stable housing, not only did the average cost per month drop, but the average cost per interaction within three major systems – medical, legal, and housing – dropped as well (page 12). The only exceptions to this are long-lasting interactions with services, such as time spent incarcerated and time spent in transitional housing. Both of these interactions can last for months to years at a time, and are more expensive interactions than others are.

One of the participants in this study, Eli, accounted for more than half of the total cost of homelessness – a little over **$680,000** (Figure 4). This is consistent with other costs studies that have found that about **10% - 15%** of those experiencing chronic homelessness can be categorized as 'high-cost users' *(Goldberg, 2017) (Daniel Fleming, 2015) (The National Center on Family Homelessness, 2009)*. These high-cost users typically account for about **50%** of the total costs of homelessness for the entire homeless population.

At this time, Linn County does not currently have the ability to identify high-cost users and communicate that information between the medical, legal, and housing services systems. However, each independent system can identify frequent users specific to their own system. Establishing closer partnerships and data-sharing procedures between systems will aid in identifying high-cost users and connecting them with the appropriate services.

Not everyone in this study indicated that they needed intensive housing interventions. For instance, although Leo experienced persistent homelessness, outside of the scope of the study he has been successful in a less intensive housing program called Rapid Rehousing. However, many of the participants would likely have benefitted from some sort of intensive program, such as long-term supportive housing.

Unfortunately, Linn County lacks adequate programs and housing to help people move from persistent homelessness into stable housing. Thus, increasing support for intensive housing service programs such as transitional housing and long-term supportive housing will be beneficial to both people moving away from persistent homelessness, and to Linn County as a whole. For many high-cost users, the cost of these supportive structures is less expensive than staying homeless.

Introduction

Homelessness in Linn County has been rigorously tracked since the 1990s *(Services, Linn County Local Homeless, 2001)*. The Point-In-Time (PIT) Survey is the most common method for tracking and analyzing changes in homelessness nationally. Across the country the PIT survey is conducted a minimum of once every two years, and is used to assess trends in the number of people experiencing homelessness on one specific night. Linn County conducts this survey twice annually - one night in January and one night in July. On these nights, volunteers count the number of people experiencing homelessness or near-homelessness who are spending that night on the streets, in their cars, at a shelter, or in a transitional housing facility. Additionally, shelters and transitional housing facilities around the county often collect their own more detailed data on the populations they serve.

However, this data usually revolves around demographic and quality-of-life information. Data regarding the monetary costs of services for people experiencing homelessness is rarely collected. A study focusing on the costs of persistent homelessness has never been conducted in Linn County, Iowa.

The information provided in this study illustrates how much services related to homelessness can coS Although we only had eight participants in this cost study – and thus cannot draw broad conclusions concerning the costs of homelessness for Linn County as a whole – the participants' information reveals patterns that warrant further investigation, and should inform our strategies to reduce and eliminate homelessness.

Costs to whom?

When we speak of 'costs', what do we mean? Who is paying for these costs?

Although in many cases it is difficult to draw direct connections from specific taxpayer dollars to the costs discussed in this study, we can draw general conclusions about the funding sources for each of the three major systems analyzed – medical, legal and housing. For further explanation regarding how costs were gathered and calculated, see the methodology on page 40.

In regards to legal systems, any costs accrued from the Cedar Rapids Police Department (such as calls to service) or the court systems come from the city or county, which are funded by taxpayer dollars. Additionally, the government funds prisons and halfway homes, either directly or via contracts and grants. This money comes back to taxpayer dollars, albeit not necessarily local tax dollars.

Many medical institutions in Linn County are involved in this study, most of which are registered nonprofits; UnityPoint, Mercy, the Eastern Iowa Health Center, both Free Clinics, the Abbe Center, various alcohol & drug treatment facilities, and Foundation 2, to name a few. These institutions will often receive the majority of their funding through grants in addition to both public and private donations, again circling back onto the taxpayer.

Finally, the housing services involved in this study are all nonprofits or government organizations. Their funding comes directly from the local government itself, from grants, or from private and public donations. For instance, many caseworker positions are funded entirely through grants and private donations. These grants can vary from the local level to the federal level, but taxpayers ultimately contribute to their existence.

When participants in this study receive bills for the services they utilized, those bills are often covered by taxpayer-funded sources (such as Medicaid), but occasionally they will sit unpaid, sometimes for years. When

these bills are unpaid, taxpayers shoulder that financial burden until the bill is paid, or the organization will redistribute funds to account for the lack of payment.

The costs discussed in this study are only a glimpse into the actual costs of homelessness. We were not able to gather satisfactory information in regards to other social services - such as food banks, free meal sites, shower and laundry, etc. - as many of these organizations do not keep records on the exact individuals they serve. Nor were we able to gather the exact costs in regards to many medical and legal services. Additionally, we are not considering the time of employees and caseworkers that is devoted to addressing interactions such as ER visits, calls to service, or other ongoing issues. If those who are persistently homeless are stably housed, this energy could be used to address other issues in the county, instead of repeatedly interacting with the same individuals.

History of Homelessness in Linn County

Early reports regarding the number of homeless in Linn County often contained duplicated data and thus were not useful for analyzing the number of homeless individuals in a given year *(County, Linn, 2011)*. In the 1990's, Linn County started bi-annual PIT counts for both January and July. Although the National Law Center on Homelessness & Poverty (NLCHP) *(Poverty, National Law Center on Homelessness &, 2017)* points out that these counts vastly underestimate the number of people experiencing homelessness, it is nonetheless the most consistent tool currently used to track homelessness.

We can see how the number of homeless found in Linn County changes year-to-year in Figure 1, which shows the results of the PIT counts from January 2009 to January 2019. Note that the methodology of the count can vary depending on what the Department of Housing and Urban Development (HUD) requires in a given year. For instance, as mentioned in the NLCHP, "...in 2013 homeless people in Rapid Rehousing (RRH) were separated from the Transitional Housing (TH) classification and were no longer included in the homeless count". These changes in data collection can make it difficult to accurately track changes in the local homeless population.

Number Of Homeless Individuals In Linn County
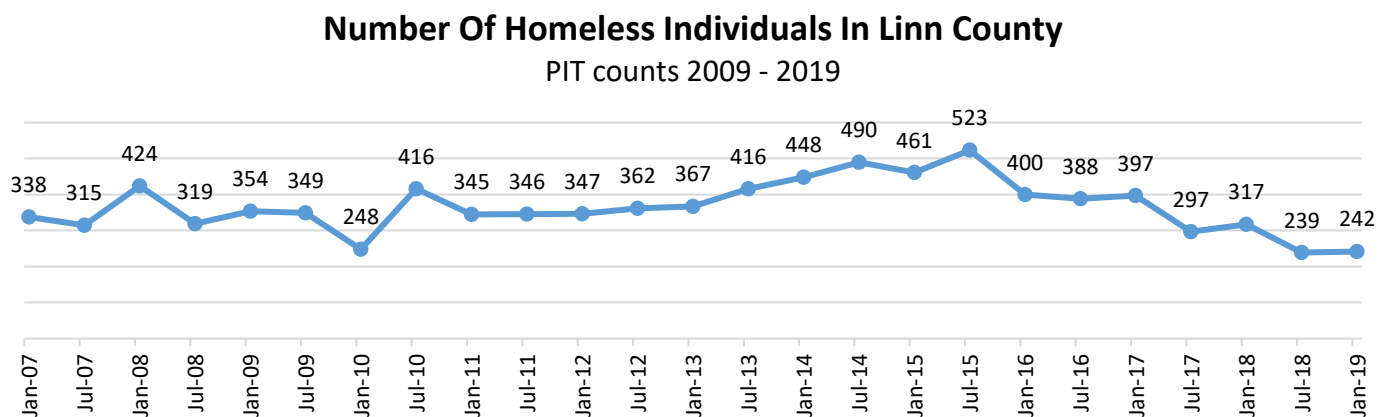### PIT counts 2009 - 2019

Figure 1: The number of individuals experiencing homelessness on a given night in Linn County fluctuates between 230 and 530 people. (Linn County Continuum of Care Planning & Policy Council, 2009) (2010) (2011) (2012) (2013) (2014) (2015) (2016) (2017) (2018) (2019)

Figure 2 shows the total number of unduplicated individuals accessing homeless services in a given year in Linn County. The data is for the years 2013 – 2018. This indicates that the number of individuals found in any given PIT count is **between 12.0% and 28.0% (with an average of 15.9%) of the total number of people who access housing services in a given year**. If we follow this trend, then it means that in 2019 there will likely be around 1,522 individuals accessing housing services.

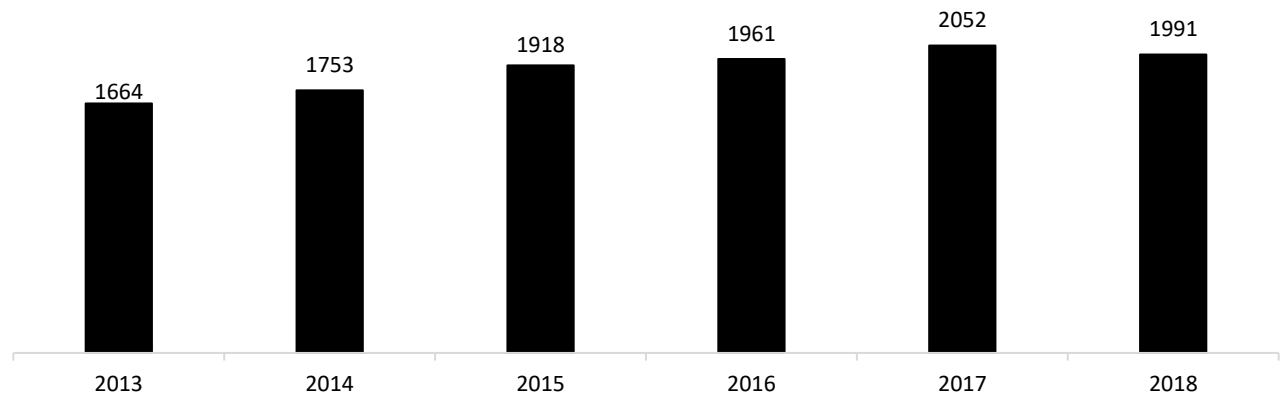## Unduplicated Homeless Individuals Who Accessed Housing Services

Figure 2: From 2013 – 2018 we can see the unduplicated number of individuals who accessed homeless services. Not everyone experiencing homelessness accesses these services, but these numbers readily demonstrate a need for homeless services in Linn County. (Wickering)

Figure 3 shows the number of chronically homeless individuals found during each Linn County PIT survey, as well as the percentage of all homeless individuals who were experiencing **chronic homelessness** (defined on page 37). Although the definition of what constitutes 'chronically homeless' has changed over the past decade, and the way PIT surveys are conducted has changed over time, we have no evidence that these changes directly impacted the dramatic jumps seen in the number of chronically homeless individuals found in Linn County in 2014. While we do not have verified explanations for these jumps, the transience of the homeless population and the potential for data collection and recording errors may account, in part, for these spikes.

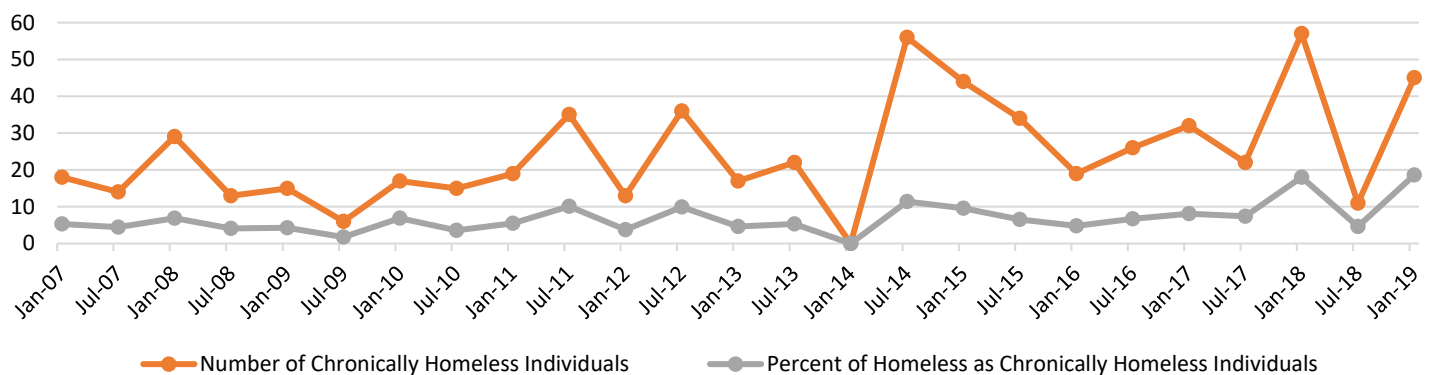## Chronically Homeless Individuals
PIT data 2009 - 2019

Figure 3: This graph shows both the number of individuals found by the PIT counts to be chronically homeless each year. These numbers exclude those in families. It also shows the percentage of individuals who are chronically homeless out of the total number of individuals found experiencing homelessness in a given PIT count. Only four PIT counts – July 2011 and 2014, and January 2018 and 2019 – show more than 10% of the homeless population found were individuals experiencing chronic homelessness.

In recent years, we have found around 30 individuals experiencing chronic homelessness during PIT counts, which typically accounts for less than 10% of the total homeless population in Linn County. These numbers jumped in the January 2018 and 2019 PIT surveys. This is possibly due to a small change in Cedar Rapids shelter

availability- during these years the Winter Overflow Shelter remained open every night in January. This shelter is low-barrier, which means that anyone who needs shelter can stay there at night, regardless of whether they are intoxicated or have a criminal history. This could possibly have allowed for a more accurate count of those experiencing chronic homelessness.

In Linn County, on average, about 6% of the homeless population experiences chronic homelessness, compared to the national average of about 17%. Due both to the small percentage of the homeless population in Linn County experiencing chronic homelessness and the restrictive nature of the definition of chronic homelessness, this study is working with individuals who have experienced **persisten*t* homelessness** (defined on page 37).

Demographics of Participants

This cost study is analyzing data from eight individuals. Seven of the participants are adults (25 years old or older on July 1st, 2018) and one is a young adult (18 - 24 years old on July 1st, 2018).

Name	Age (On July 1st, 2018)	Sex	Race	Family Status
Carey Nichols	47	Female	Black / African-American	Single Adult
Katheryne Blackman	18	Female	White	Young Adult
Eli Abel	44	Male	White	Single Adult
Martie Sangster	36	Trans	White	Single Adult
Marybeth Howard	48	Female	White	Single Adult
Jamie Evert	40	Male	White	Single Adult
Miles Boerio	25	Male	White	Single Adult
Leo Morrish	39	Male	Black / African-American	Single Adult

Table 1: each participant's name has been changed to protect to their identity.

Each participant has a different housing history. Even if two individuals have the same reason for their homelessness, the number of services that are accessible for any one person can depend on how long they have been homeless, their category of homelessness, etc. These factors can influence the type and amount of assistance that someone can receive. For example, certain programs require participants to experience literal homelessness (such as sleeping outside, in a car, on the streets, or some other place not intended for human habitation) in order to be eligible for assistance.

The calendars in Table 2 show a detailed housing history for each participant over the previous five years. They demonstrate that each participant has a unique experience. Although everyone experienced homelessness, only two participants experienced incarceration, four experienced living in transitional housing, six experienced living in at risk housing situations, and only two experienced stable housing at any point during the past 3-5 years.

Participant Housing Histories

Each calendar shows that participant's housing history from 2013 - 2018

Carey	1	2	3	4	5	6	7	8	9	10	11	12
2013							H	H	H	H	H	H
2014	H	H	H	H	H	H	H	H	H	H	H	H
2015	H	H	H	H	H	H	H	H	H	H	H	H
2016	H	H	H	H	H	H	H	H	H	H	H	H
2017	H	H	T	T	T	T	T	T	T	T	T	S
2018	S	S	S	S	S	S						

Marybeth	1	2	3	4	5	6	7	8	9	10	11	12
2013							A	A	I	I	I	I
2014	H	I	I	I	A	A	A	A	A	A	A	A
2015	A	A	A	H	H	H	H	I	I	I	I	I
2016	I	I	I	I	I	H	H	H	I	I	I	I
2017	I	I	I	I	I	I	I	I	H	T	T	T
2018	T	T	T	T	T	T						

Katheryne	1	2	3	4	5	6	7	8	9	10	11	12
2013												
2014												
2015							A	A	A	A	A	A
2016	A	A	A	A	A	A	A	A	A	A	A	A
2017	A	A	H	H	H	H	H	H	H	H	H	H
2018	H	H	H	H	H	H						

Jamie	1	2	3	4	5	6	7	8	9	10	11	12
2013							A	A	A	A	A	A
2014	H	H	H	H	H	H	H	H	H	H	H	A
2015	A	A	A	A	A	H	H	H	H	H	H	H
2016	H	H	H	H	A	A	A	A	A	A	A	A
2017	A	A	H	H	H	A	A	A	H	H	H	H
2018	A	A	A	A	A							

Eli	1	2	3	4	5	6	7	8	9	10	11	12
2013							H	H	H	H	H	H
2014	H	H	H	H	H	H	H	H	H	H	H	H
2015	H	H	H	H	H	H	H	H	H	H	H	H
2016	H	H	H	H	H	H	H	H	H	H	H	H
2017	H	H	H	H	H	A	A	A	A	A	A	H
2018	H	H	H	H	H	H						

Leo	1	2	3	4	5	6	7	8	9	10	11	12
2013							S	S	S	S	S	S
2014	S	S	S	S	S	S	S	S	S	S	A	A
2015	A	A	A	H	H	H	H	H	H	H	H	H
2016	H	H	H	H	H	H	H	H	H	S	S	S
2017	S	S	S	S	S	S	S	S	S	H	H	H
2018	H	H	H	H	H	H						

Martie	1	2	3	4	5	6	7	8	9	10	11	12
2013							H	H	H	H	H	H
2014	H	H	H	H	H	H	H	H	H	H	H	H
2015	H	H	H	H	H	H	H	H	H	H	H	H
2016	H	H	H	H	H	H	H	H	H	H	H	H
2017	H	H	H	H	H	H	H	H	H	H	H	T
2018	T	T	T	H	H	H						

Miles	1	2	3	4	5	6	7	8	9	10	11	12
2013							A	A	A	A	A	A
2014	A	A	A	A	A	A	A	A	A	T	T	T
2015	T	T	I	I	I	I	I	I	I	I	I	I
2016	I	I	I	I	I	I	I	I	I	I	I	I
2017	I	I	I	I	I	I	A	A	A	A	A	A
2018	H	H	H	H	H	H						

Legend:

H	Homeless		I	Incarcerated		T	Transitional		A	At Risk
S	Stable			Outside scope of study						

Table 2 shows each participant's housing history broken down by the housing category experienced for a given month. The exact method used for determining housing categories is on page 38.

Aggregate Information

From July 2013 to June 2018, all eight participants have accrued a total of **over $1,200,000** in service costs while experiencing homelessness (Figure 4). This amounts to slightly less **than an average of $150,000 per person** throughout the five-year period. Note that Eli accounts for almost 57% of this cost ($684,930.76). This is not surprising, as other cost studies have found that about 10% - 15% of individuals experiencing chronic homelessness account for about 50% *(Goldberg, 2017) (Daniel Fleming, 2015) (The National Center on Family*

Homelessness, 2009) of the total costs associated with homelessness. Those numbers imply that providing housing for chronic high-cost users can have a substantial financial impact on a community.

On the other end of this spectrum, Leo's costs while homeless account for 0.1% ($1,228.00) of the total costs of homelessness. Leo is the lowest-cost utilizer in this sample, with his costs across housing categories – homeless, at risk, and stable – totaling to under $3,000.

These two individuals have different stories, and require very different services. Leo has fewer barriers to housing compared to Eli, and comparing these two to the other participants highlights the fact that every individual may need vastly different services in order to achieve and maintain housing.

Total Costs For All 8 Participants 2013 - 2018
Separated by housing category
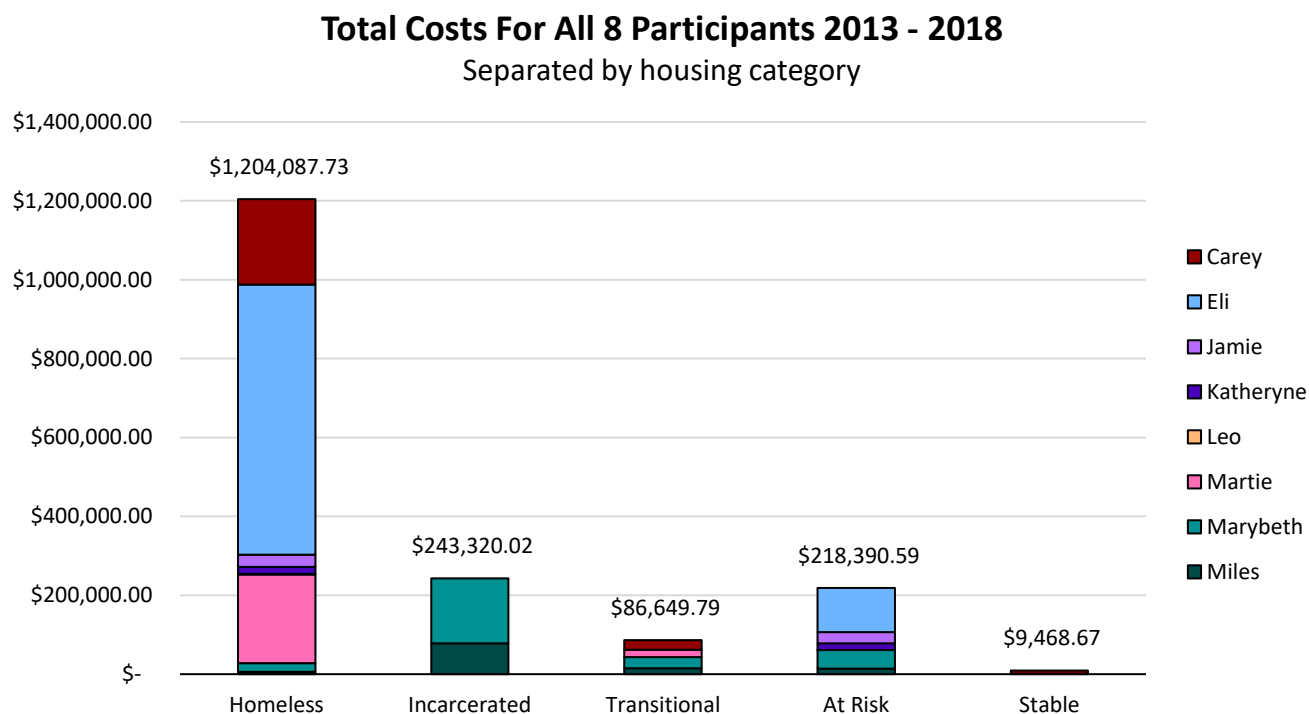
Figure 4 shows the total costs associated with each housing situation accrued by the eight participants over the 3-5 year study period. The different colors represent the costs associated with each individual.

The costs in Figure 4 are aggregates and do not account for time spent in each housing category (Figure 5). The number of months spent homeless looks roughly proportional to the total cost of homelessness, thus calculating the average cost per person per month may be a more accurate way of analyzing this information (Figure 6).

The average costs per month for each housing category in Figure 6 highlight how dramatically costs can change as individuals' housing categories improve. When people experience homelessness, they typically access more emergency medical and legal services than when they are housed, which has a high impact on costs.

There is a significant average monthly cost for incarcerated individuals. During 2013 – 2018, the cost per inmate per night in halfway homes ranged from $74.66 - $79.65 *(Iowa Department of Corrections, 2018)*, and the cost per inmate per night in prisons ranged from $90.03 - $95.85. This means that the average cost for keeping a single inmate incarcerated for a month ranges from $2,090.48 - $2,971.35, even without considering the costs of other services such as medications or health care.

Transitional housing services in Linn County cost between an average of $21.41 and $36.67 per person per night depending on the organization. This amounts to between $599.48 and $1,136.77 per person per month. During this time, many individuals may be addressing medical and legal concerns that were impossible for them to address while they were homeless. Transitional housing provides additional supportive services, so individuals accessing transitional housing often do not need to access other housing services during that time.

When individuals were at risk, they were able to maintain their housing to an extent. However, there's still a large number of emergency medical and legal interactions experienced by participants in this housing category. This indicates that perhaps certain participants would have benefitted from more intensive housing interventions.

Finally, individuals experiencing stable housing had very few social costs attributed to them. As seen in Figure 7, even though the individual average cost while stable may be higher than the aggregated average cost, there is still a decrease in individual costs compared to all of the other housing categories. This is marked largely by a shift from emergency to preventative medical care, and includes a decrease in both legal and housing interactions.
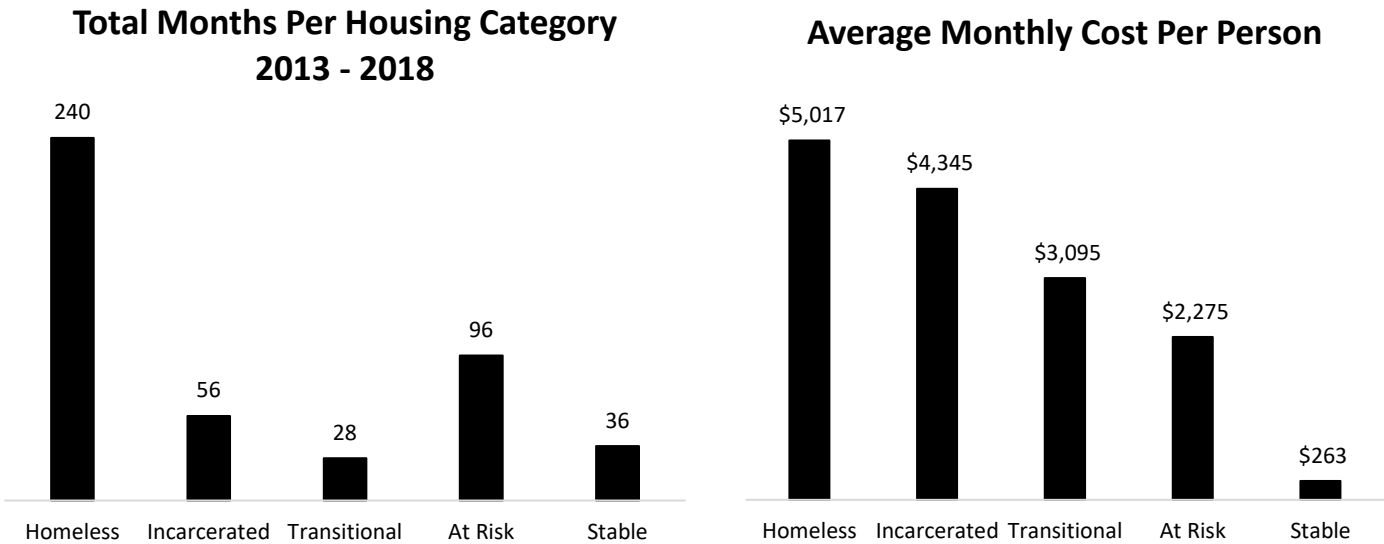
Total Months Per Housing Category 2013 - 2018

Homeless	Incarcerated	Transitional	At Risk	Stable
240	56	28	96	36

Average Monthly Cost Per Person

Homeless	Incarcerated	Transitional	At Risk	Stable
$5,017	$4,345	$3,095	$2,275	$263

Figure 5 shows us that the amount of time spent in each housing situation seems roughly proportional to the total costs.

Figure 6 shows how much it costs, on average, for a single individual to live in each housing category for one month. These results were calculated by dividing the costs in Figure 4 by the months in Figure 5.

If we look at the average cost per housing category per month for each individual (Figure 7), we can see that Carey not only moves from homelessness through transitional housing into stable housing, but also has average costs that reflect what we would hope to see from that transition. Her average costs per month dropped by $2,313 when she entered transitional housing, and it dropped by another $1,650 when she moved to stable housing.

Eli's high total costs are also reflected in Figure 7. When homeless, he cost over an average of $12,000 per month. He cost almost $6,000 more per month when he was at-risk because he was not living in a healthy environment. He would occasionally spend nights sleeping outside or in the winter overflow shelter, and when

he did sleep in his apartment he was often accompanied by 9 to 12 other individuals. These numbers indicate that Eli may have benefitted from a more intensive housing program than the one he received.
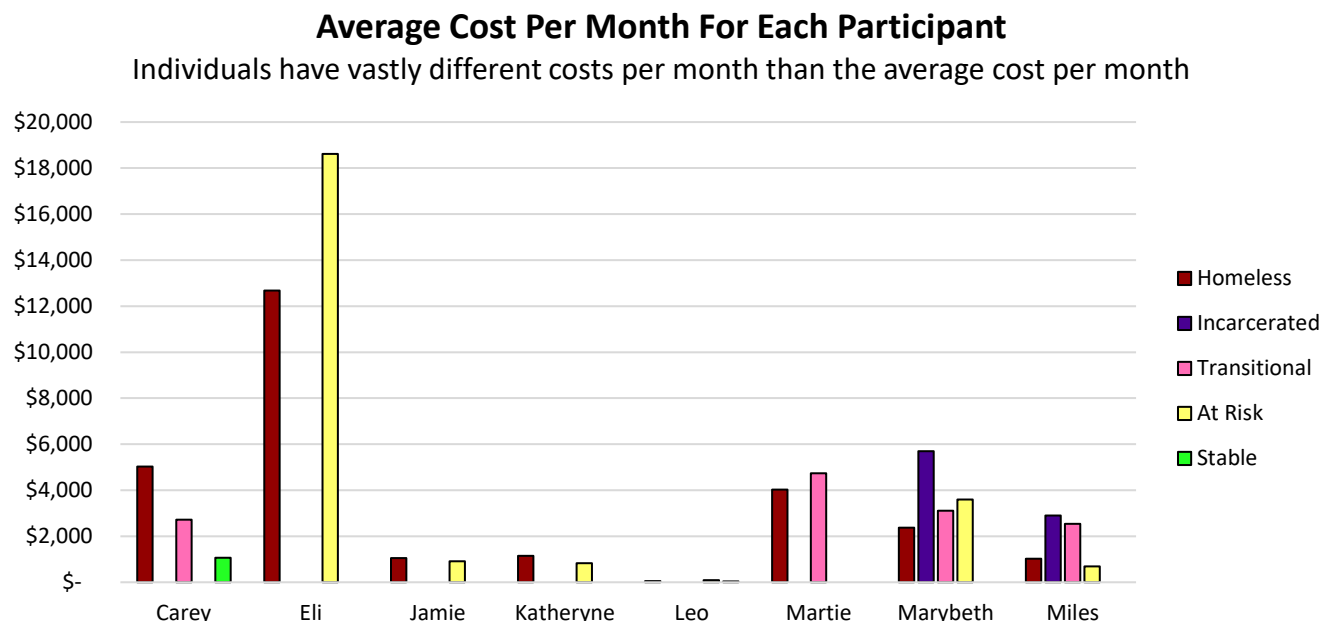
Average Cost Per Month For Each Participant
Individuals have vastly different costs per month than the average cost per month

Figure 7 shows the average cost per month for each person for each housing situation they experienced. With the exception of Leo, every individual cost over $1,000 per month while experiencing homelessness.

Figure 8 shows the same aggregate numbers as seen in Figure 4, but separates the costs into the three major systems that we are analyzing – medical, legal, and housing. Unsurprisingly, medical costs dwarf the other two systems. In the homeless, at risk, and stable categories, medical costs accounted for over 90% of the total costs. Similarly, medical interactions accounted for over 60% of the total number of interactions in each housing category. In this study, medical costs incorporate everything from hospital interactions to therapy visits to accessing free clinics to alcohol and drug treatments. The emergent nature of certain medical interactions and the long-term necessity for other medical interactions accounts in part for these high costs and number of interactions.
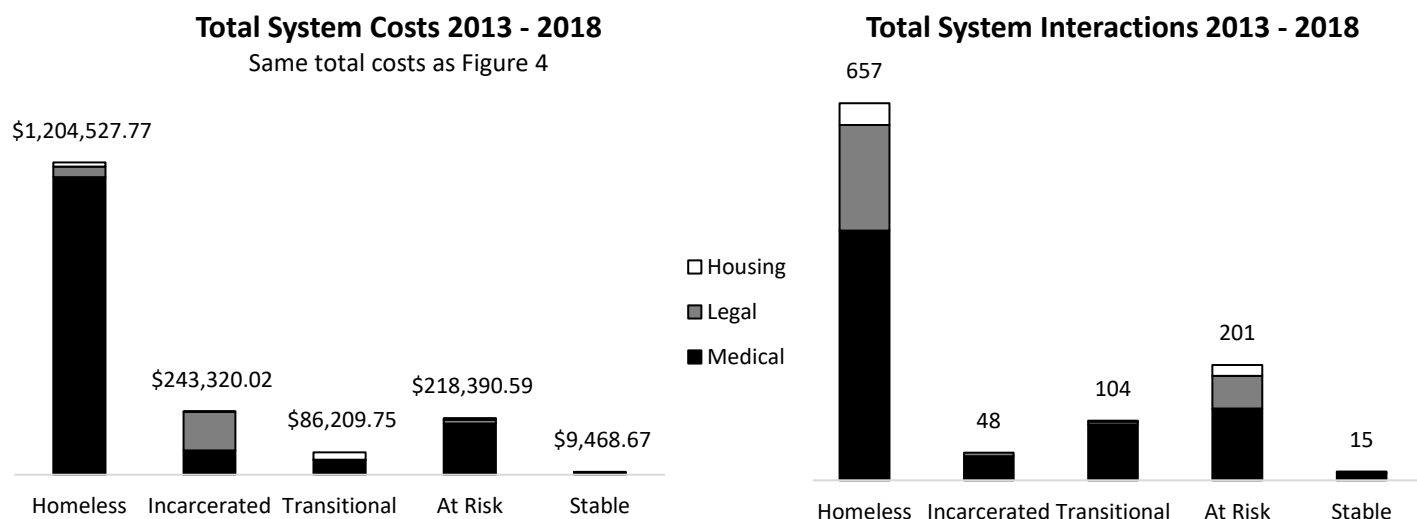
Figure 8 shows how the costs collected under each service is distributed on the left, and shows the total number of interactions experienced in each housing category on the right.

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Note that the costs for medical services in transitional housing is fairly small compared to most of the other housing categories, as transitional housing has the least expensive average medical interaction ($583.22 per interaction, compared to the most expensive $2,640.89 per interaction while homeless). This indicates that these interactions consist of more preventative services and fewer emergency services, and thus are less expensive per interaction.

Medical

When comparing the total costs of different medical services with the number of medical interactions (Figure 9), it is clear that hospital interactions make up the majority of costs across all housing situations, whereas they do not always make up the majority of the interactions. This is unsurprising, as hospital visits are often expensive, especially when compared to the costs of therapy sessions or trips to a free clinic.

Since hospital interactions account for more than 85% of the medical costs in each housing category (yet never more than 75% of the interactions themselves), let us start by exploring those.
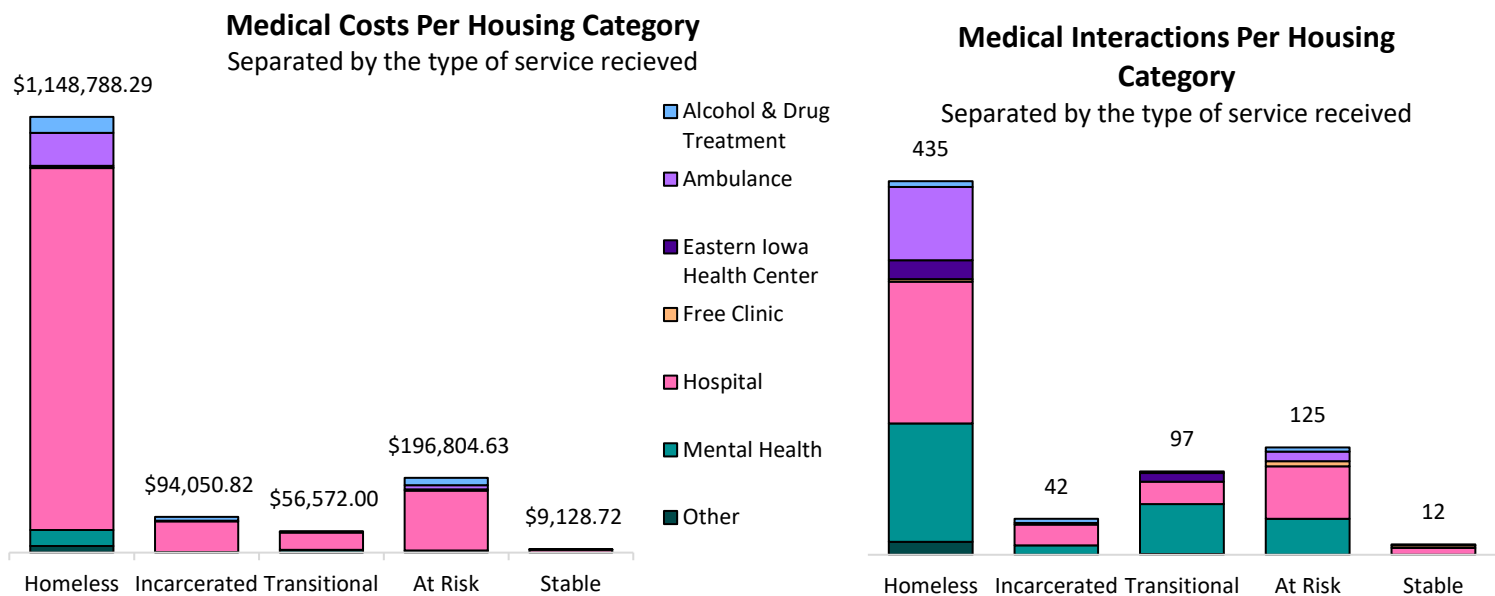
Figure 9 shows the total costs of the medical services utilized by all participants from 2013 – 2018 on the left, and the number of medical interactions per housing category broken down by the type of service received on the right.

Hospitals

In Figure 9, hospital visits are grouped together. This means that, for example, any of the mental health interactions shown are from alternative agencies, such as the Abbe Center or Foundation 2. In Figure 10, we can clearly see what issues participants were addressing at the hospitals. This data is from the first listed 'primary concern' on the medical records, so there may have been comorbid issues that are not listed.

We have separated these issues into nine different categories to both provide a general understanding for why someone was seen, and to make sure the data is readable. Some medical records were not available, and thus the reasons for the visits are 'unknown'.

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Mental health interactions include everything from therapist appointments to interactions with the adult behavioral health unit. The category of 'headache / dental / facial organs' includes visits for headaches, eye pain, earaches, and tooth pain. The 'other' category includes everything from thrombosis to hypothermia.
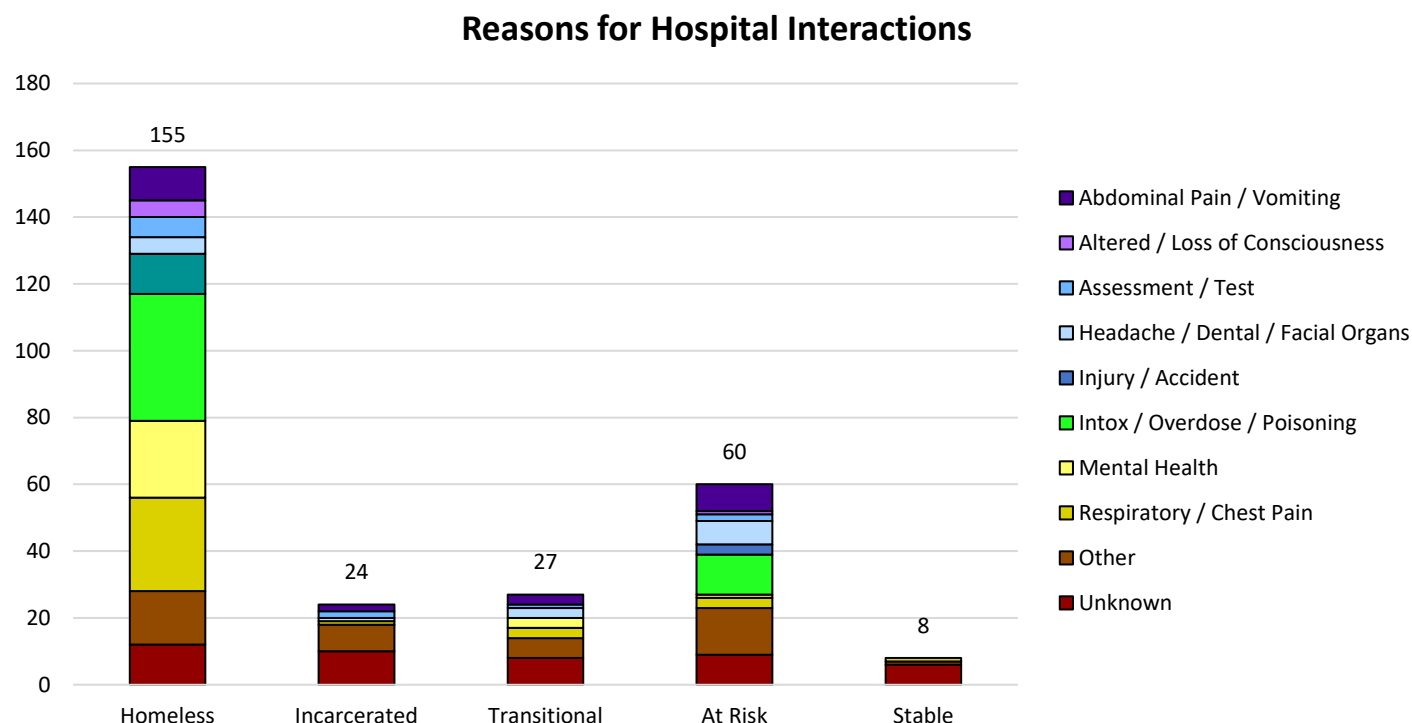
Reasons for Hospital Interactions

Figure 10 shows the issues hospital interactions are addressing. Interactions that involved intoxication, overdosing, and poisoning only occurred while participants were experiencing homelessness or at risk housing situations.

The types of interactions – emergency or preventative – can be approximated by looking at whether the emergency room was utilized or not. While it is possible to access emergency services without going to the emergency room, such as admitting oneself into a behavioral health unit, emergency room utilizations are a good marker for distinguishing emergency interactions. Figure 11 shows that the majority of hospital interactions for both the homeless and at risk housing categories were emergency room visits. ER interactions are usually more expensive than going directly through the hospital or accessing preventative services. The high rate of ER visits while participants are at risk indicates that there may be more that Linn County can do to identify and address issues for individuals no longer homeless, but not yet stably housed.

Note that only one interaction while stably housed involved the emergency room. All other interactions were directly through the hospital and were each considerably less expensive utilizing the ER.

One variable that strongly affects the cost of a hospital interaction is whether or not the services received were on an inpatient or an outpatient basis. Unfortunately, not all of the medical records were available, and not all records mentioned whether or not an interaction included inpatient care.
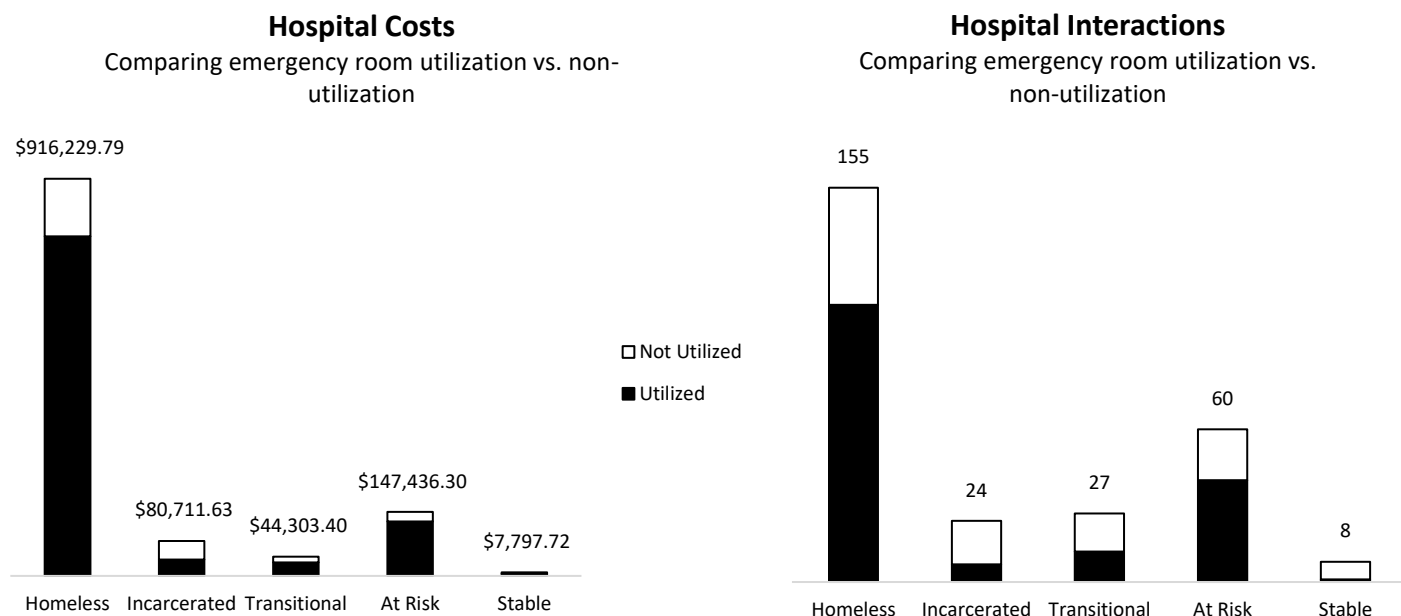
Hospital Costs

Comparing emergency room utilization vs. non-utilization

□ Not Utilized
■ Utilized

Hospital Interactions

Comparing emergency room utilization vs. non-utilization

Figure 11 shows the total costs for hospital visits on the left and number of interactions for hospitals accrued over 2013-2018 on the right.

Thus, we decided to estimate which interactions were inpatient by looking at the amount of time spent in the hospital (Figure 12). Typically, the local hospitals will categorize a patient as an inpatient if they think that the

Length Of Time Hospital Interactions Take

Based off admission and discharge dates
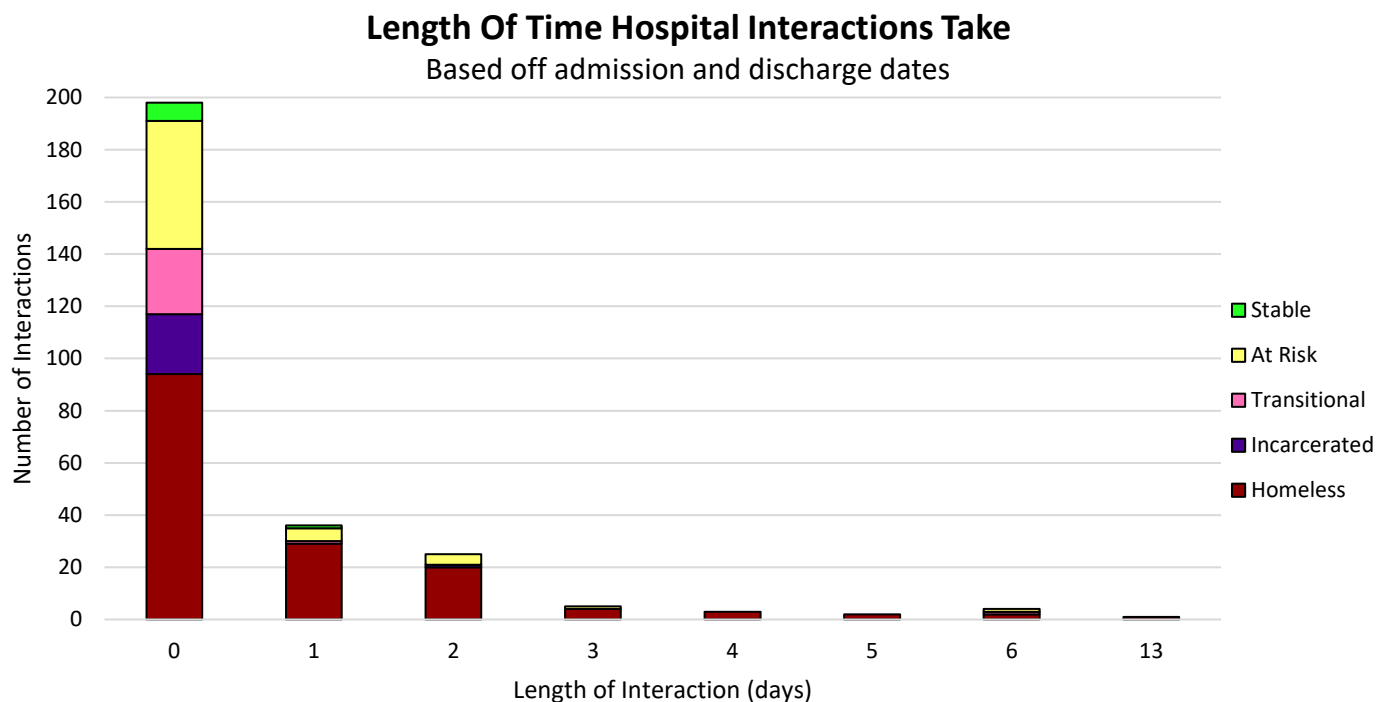
Figure 12 shows the length of time (in approximate days) that hospital interactions took, split among the housing categories.

patient will be staying at least two midnights *(Centers for Medicare & Medicaid Services, 2015)*. Since we do not always have consistent access to that information, any interactions that lasted two or more days are labeled 'inpatient' for this study. Interactions that lasted zero days means that a participant was admitted and discharged in the same day. Interactions that lasted one day could mean that they lasted 24 hours, but in many

instances these interactions include a late admission time on one day, and an early discharge time the following morning. Thus, two days ensures that the participant stayed a minimum of 24 hours in the hospital and for this study will be labeled inpatient. The interactions taking 0 or 1 day are considered outpatient interactions.

As we can see in Figure 13 the majority of inpatient hospital stays were experienced while a participant was homeless. Figure 13 also shows that the second largest amount of inpatient interactions were experienced while participants were at risk. These factors could be playing a large role in the different costs we see in each housing category. While participants were experiencing stable housing, they did not have any inpatient interactions.

Inpatient Vs. Outpatient Hospital Interactions
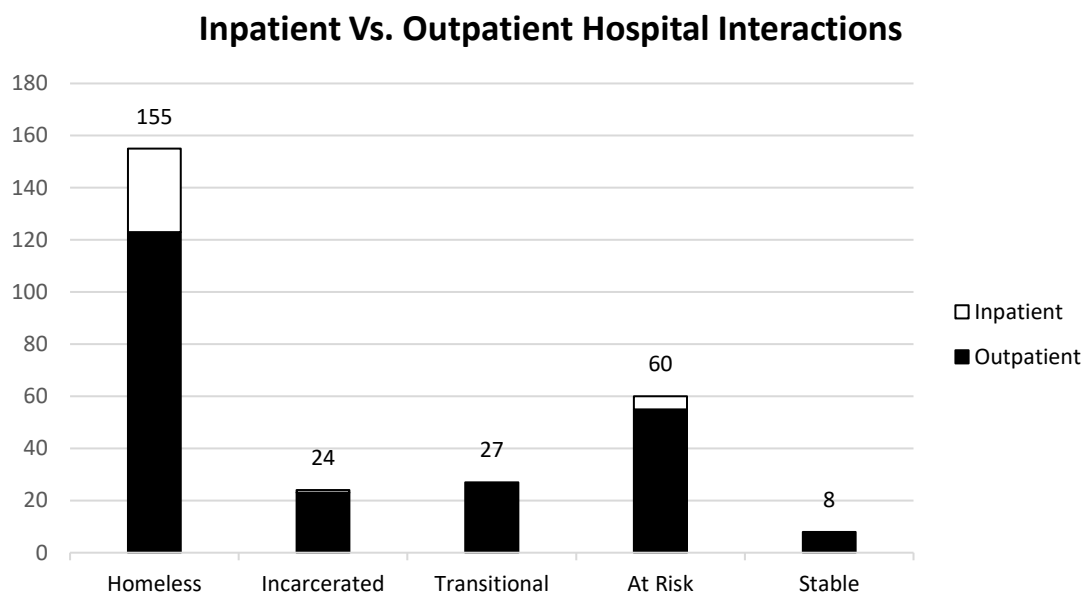
Figure 13 shows where the inpatient and outpatient hospital interactions are occurring. There were 32 inpatient interactions while homeless, one while incarcerated, and five while at risk.

Now we can more appropriately analyze the average cost per interaction, by separating out both ER utilization and the patient status. When participants are outpatients, the average cost for a non-ER interaction for any given housing category is considerably less expensive than the average cost for each ER interaction. Interestingly, the average cost per interaction without utilizing the ER decreases as participants experience more stable housing categories (Figure 14). This could be indicative of a shift to more preventative care, or a shift in understanding how to use hospital services more effectively. ER utilization looks like it follows the same trend; as previously mentioned there was only one ER interaction while participants were stably housed, and that fact may be skewing that cost.

Because inpatient interactions only occurred in three of the five housing categories, it is difficult to find any general trends. However, it is clear when looking at the scales that inpatient costs per interaction are often dramatically more expensive than outpatient interactions, even when considering emergency room utilization.

15

Average Cost Per Hospital Interaction
Split between outpatient and inpatient interactions, and whether or not an ER was utilized
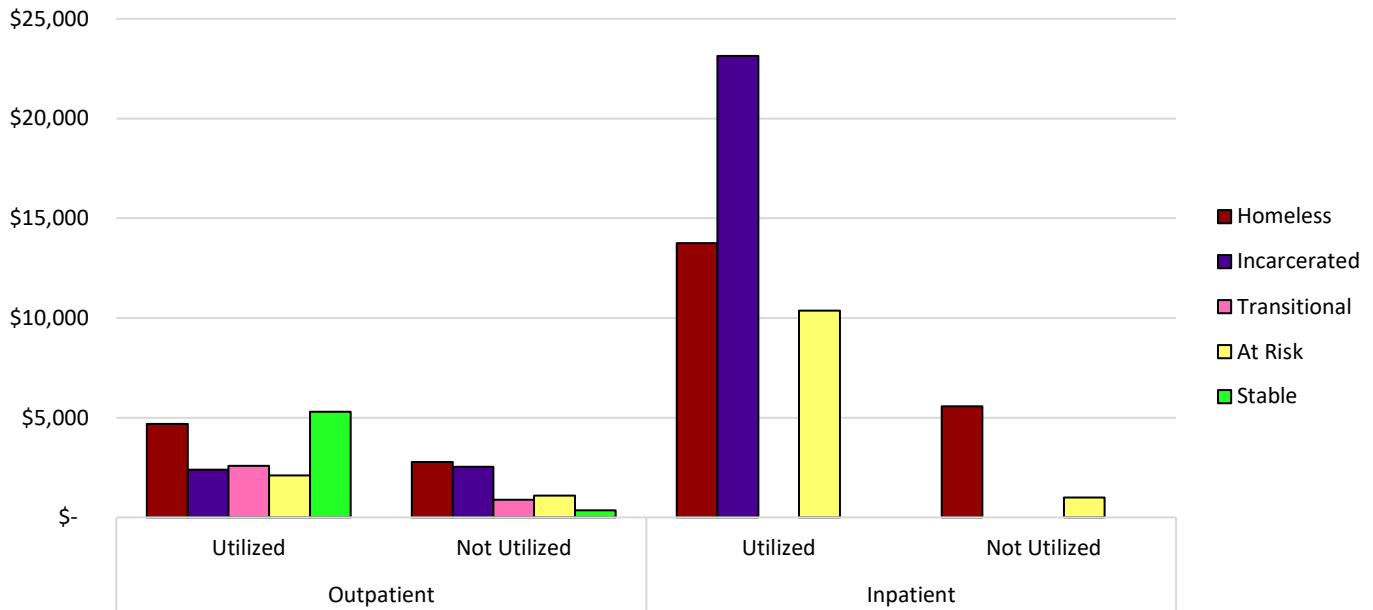

Figure 14 shows a general decrease in average cost per interaction as housing categories improve. It also highlights that inpatient interactions are on average more expensive than outpatient interactions, and ER interactions are more expensive than non-ER interactions.

Each participant experienced at least one outpatient hospital interaction. Figure 15 further supports the fact that all of the participants experienced homelessness differently. For instance, Carey had seven different interactions with a hospital while she was stable, but the majority of those interactions were for preventative care. Leo interacted with the hospital because he injured his wrist at work while he was stably housed. Jamie has fewer interactions while homeless because during homelessness, he would avoid looking for medical care unless it was a life-or-death emergency.

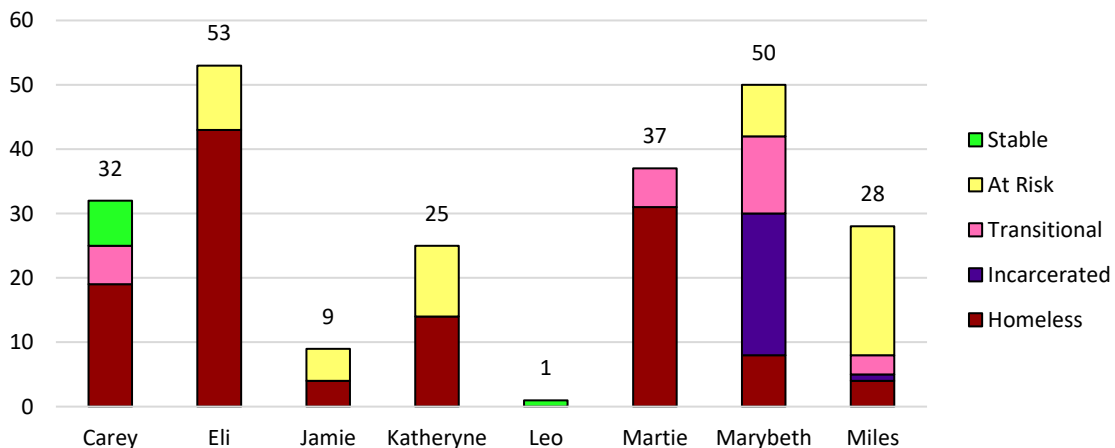## Total Outpatient Hospital Visits
Participant Utilization

Figure 15 shows the number of outpatient hospital interactions that each participant experienced, separated by housing category.

Since there are so few inpatient interactions, it is worth looking at who needs inpatient care and when. As shown in Figure 16, not everyone was admitted into inpatient care. People needed inpatient care throughout different housing categories. Unfortunately, we are missing information from Katheryne, as she likely would have had inpatient stays from experiencing a week-long coma.

Eli's inpatient interactions are largely due to intoxications and overdoses (seventeen interactions) and he had five mental health interactions, whereas Carey's are due to abdominal pain, chest pain, and a loss of consciousness. Jamie was admitted into an inpatient facility for mental health reasons. Three of Martie's inpatient interactions are for mental health while one is for intoxication. Marybeth's inpatient interaction is due to post-operation abdominal pain.
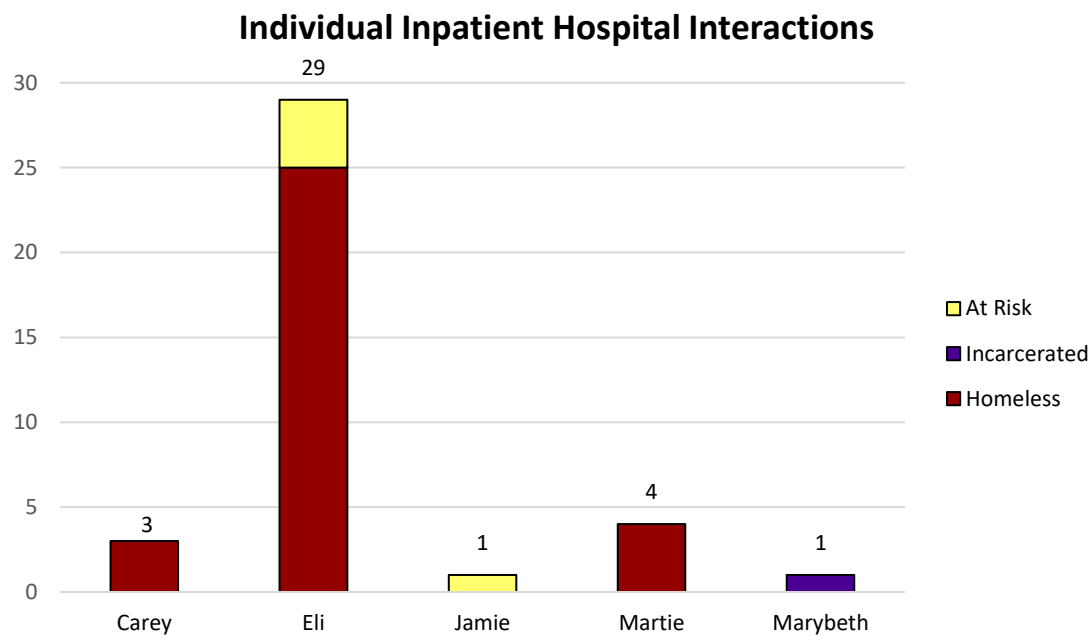

Figure 16 shows individual inpatient hospital interactions. Four of Eli's interactions were while he was at risk.

Mental Health

Mental health interactions compromise a significant number of the medical interactions for our participants. The only individual who experienced no mental health interactions was Leo. Martie and Jamie are responsible for the majority of mental health interactions; Martie had 108 interactions while homeless and 46 while in transitional housing, and Jamie had 32 while homeless and 42 while at risk. These numbers indicate that Martie and Jamie are accessing at least some of the services they need, even while experiencing homelessness. This also indicates that either the other participants do not need the same level of mental health care that Martie and Jamie do, or they are not able to access mental health care as successfully as Martie and Jamie.

17

Mental Health Interactions
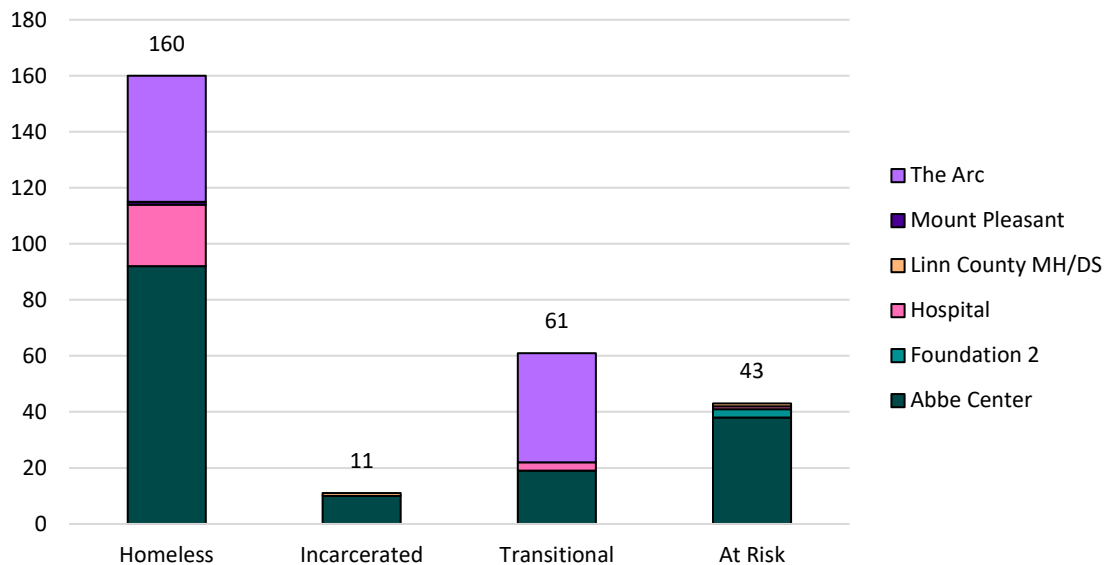### Includes hospital interactions

Figure 17 shows the number of mental health interactions per housing category split among the different agencies that participants utilized. These interactions are equivalent to .67 interactions per month while homeless, .2 while incarcerated, 2.18 while in transitional, and .45 while at risk.

Free Clinics

There were few free clinic visits, culminating in relatively low costs as seen in Figure 18- only three interactions while participants were experiencing homelessness, and almost all of the interactions with free clinics were from one individual. Marybeth had 10 interactions, Leo had 3, and Jamie had 2. Marybeth is also the only participant who experienced halfway houses, and this could influence her frequency of utilizing these clinics. Halfway homes try to connect their clients to affordable supports and services. Therefore, they will often suggest visiting or provide transportation to a free clinic to save on medical bills.
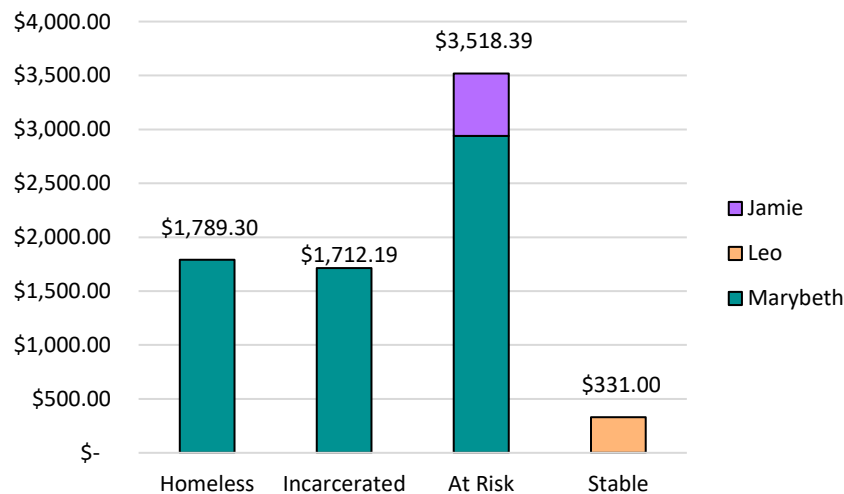
Costs Of Services Received At Free Clinics

Figure 18 shows estimates regarding the costs of visits to free clinics. While homeless, Marybeth had three interactions while homeless, three while incarcerated, and four while at risk. Jamie had two interactions, and Leo had three.

Alcohol & Drug Treatment Centers

The alcohol and drug treatment costs in Figure 19 are all referring to preventative treatment at agencies outside of hospitals. Hospital intoxication and overdose interactions are in Figure 10, but those interactions are all reactive instead of preventative.

Only a few individuals accessed alcohol & drug services at all; Martie only completed an intake assessment, but never was formally admitted into a program or facility. Eli was admitted into a facility twice when he was experiencing homelessness. Medical records indicate that these interactions were voluntary, as it is stated on the records surrounding these interactions that Eli had been requesting intensive detox and rehabilitation services. Marybeth used these programs multiple times as part of her rehabilitation programs from halfway homes. She would often use the outpatient group therapies that were offered.

Not everyone utilized alcohol and drug treatment and rehabilitation centers. Again, this could be an indication of the different needs and barriers that the participants have, but it could also indicate that some participants have needs that are not being adequately addressed. For instance, Eli has 48 hospital interactions that have to do with intoxication, many of them after he attended alcohol and drug treatment, which indicates that he may need more support than the existing programs offer. Jamie, Carey, and Katheryne have all been admitted to hospitals due to intoxication; however, they have only been admitted a total of 4 times altogether. This doesn't necessarily mean they wouldn't benefit from alcohol and drug treatment, but it does indicate that it may be less of a barrier for them than for other participants.
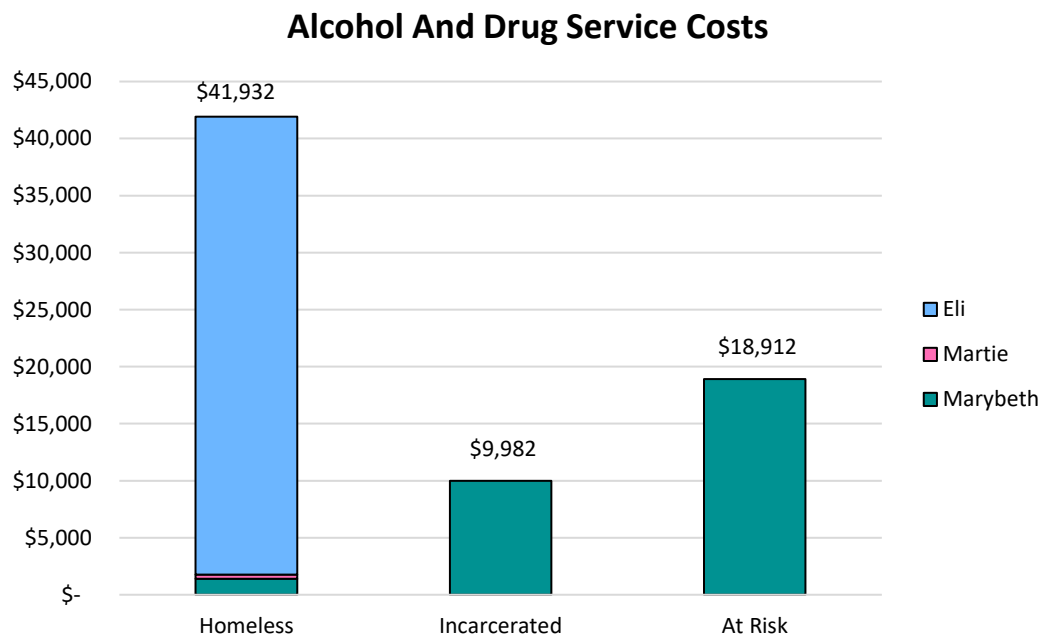

Figure 19 shows both who is utilizing alcohol & drug treatment services and what those services are costing. While homeless, Eli, Martie, and Marybeth had three, two, and three interactions with alcohol & drug services respectively. While incarcerated Marybeth had four interactions, and she had five interactions while at risk.

Legal

We only have three different pieces of information from legal entities. First, court costs, along with jail stays, refer to any costs accrued by individuals via court interactions which were found on Iowa Courts Online. Second, calls to service are interactions with the Cedar Rapids Police Department (CRPD) that were recorded with the participant's name and birthdate. These calls do not mean that a participant was engaging in illegal or suspicious activity; someone can get a call to service just because an officer ran their license plate or stopped to talk with them, or even if they had been seeking out law enforcement assistance themselves. We have records from the Iowa Department of Corrections (DoC) for the entry and exit dates into prisons and halfway homes. Jail dates were accessible on Iowa Courts Online, and none of the participants had experienced 90 consecutive dates in jail during the scope of the study.

The majority of the legal costs are associated with incarceration (Figure 23). This is expected, since participants were involved in this housing situation for months at a time, and as discussed on page 9, both prisons and halfway homes are expensive institutions. Many of the legal interactions are transfers from prisons to halfway homes. This transfer is important to note, since both environments are very different and affect the services that participants can utilize. For instance, people are encouraged to find employment and utilize outside resources when they are in halfway homes- things that are not possible when they are in a prison environment.

Note that the only legal interactions for participants who experienced stable housing were for Leo – one call to service, and a court case regarding fishing without a license, which resulted in a fine.
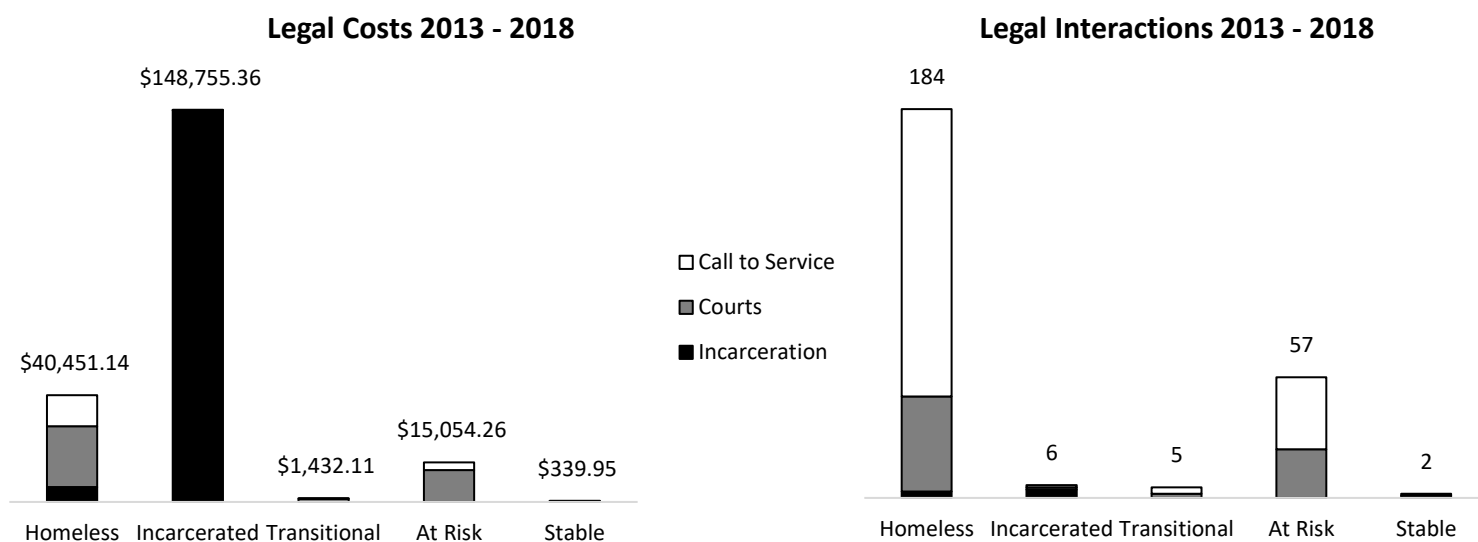

Figure 20 shows both the legal costs associated with each housing situation on the left, and the number of legal interactions on the right.

As mentioned previously, not all calls to service result in a night in jail or are related to illegal behavior- in some instances police were called because a participant was unconscious on a sidewalk and bystanders were concerned. We can see how different individuals experienced calls to service in different housing categories in Figure 21. For example, Eli had experienced literal homelessness for the majority of time during the study, and is well known by many officers in the area. This may affect his calls to service, as an officer choosing to talk to him just to check in or catch up could be recorded as a call.

Individual Calls To Service 2013 - 2018

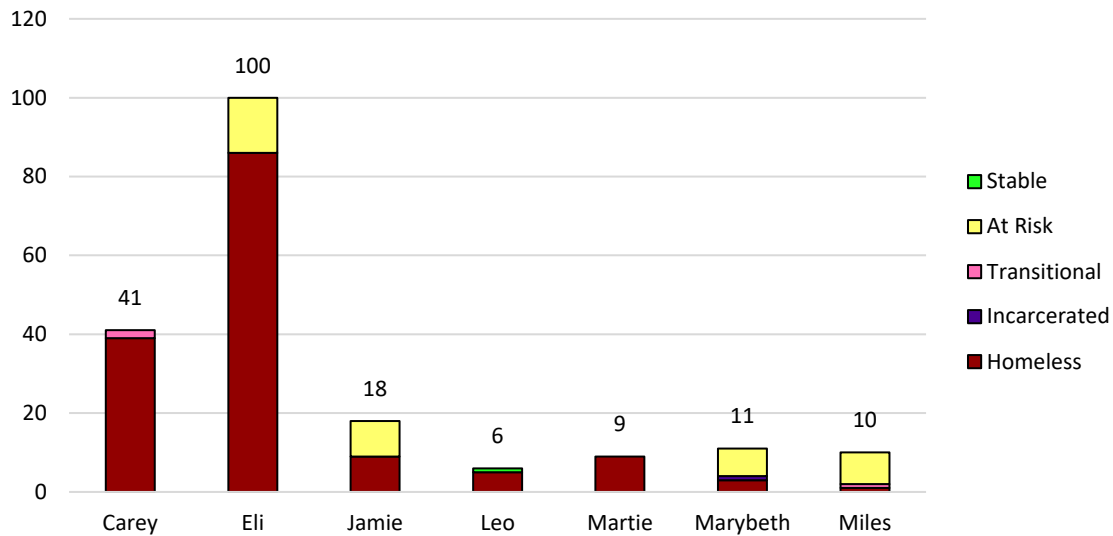Katheryne likely had calls to service, but unfortunately we don't have that data

Figure 21 shows the number of calls to service individuals have. It is possible that the high number of calls that Eli experienced were due in part to the fact that he experienced literal homelessness for an extended period of time, and thus had a higher chance of interacting with an officer.

Figure 22 shows the different types of charges that were accrued in the different housing categories. In total, there are four felonies among the 91 charges. One felony pertains to drug charges (while homeless), one is a violation of parole (at risk), one is an assault using dangerous weapons (homeless), and one was child endangerment / domestic abuse (transitional). However, the majority of charges are civil (and these are largely associated with property management), simple misdemeanors, and traffic violations.
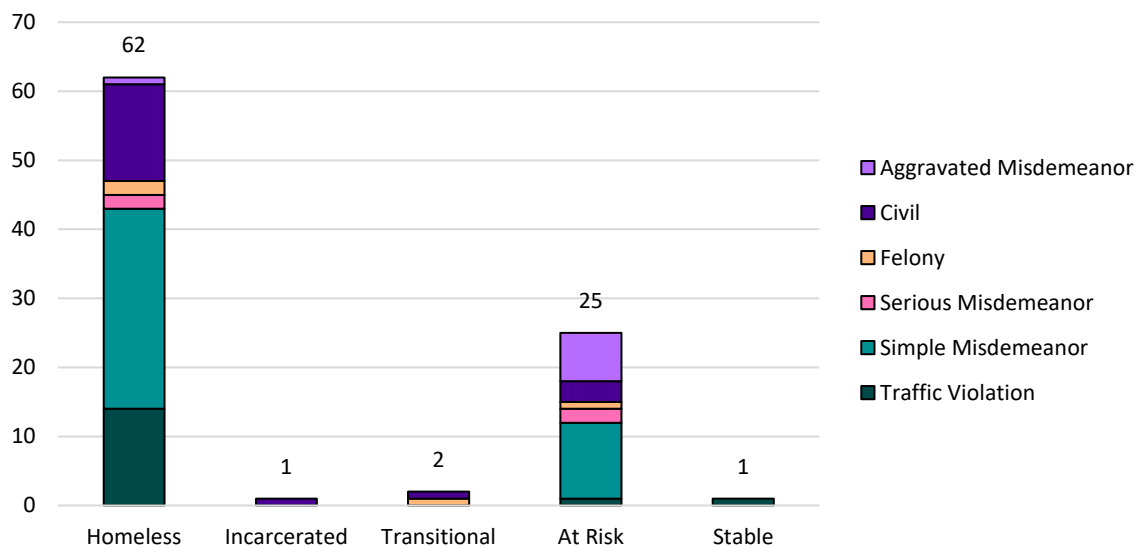
Types Of Charges 2013 - 2018

Figure 22 shows the types of charges that were accrued. All civil charges are lumped together, and the different types of traffic violations are lumped together.

Of the 62 total charges accrued, 29 were simple misdemeanors, as seen in Figure 23. Most of these misdemeanors constituted crimes such as public intoxication, consumption of alcohol in a public place, or possession of drug paraphernalia; theft of the 5th degree, which is theft of property under $200 and is commonly associated with stealing food or clothes; and trespassing. These three charges are very commonly associated with homelessness.
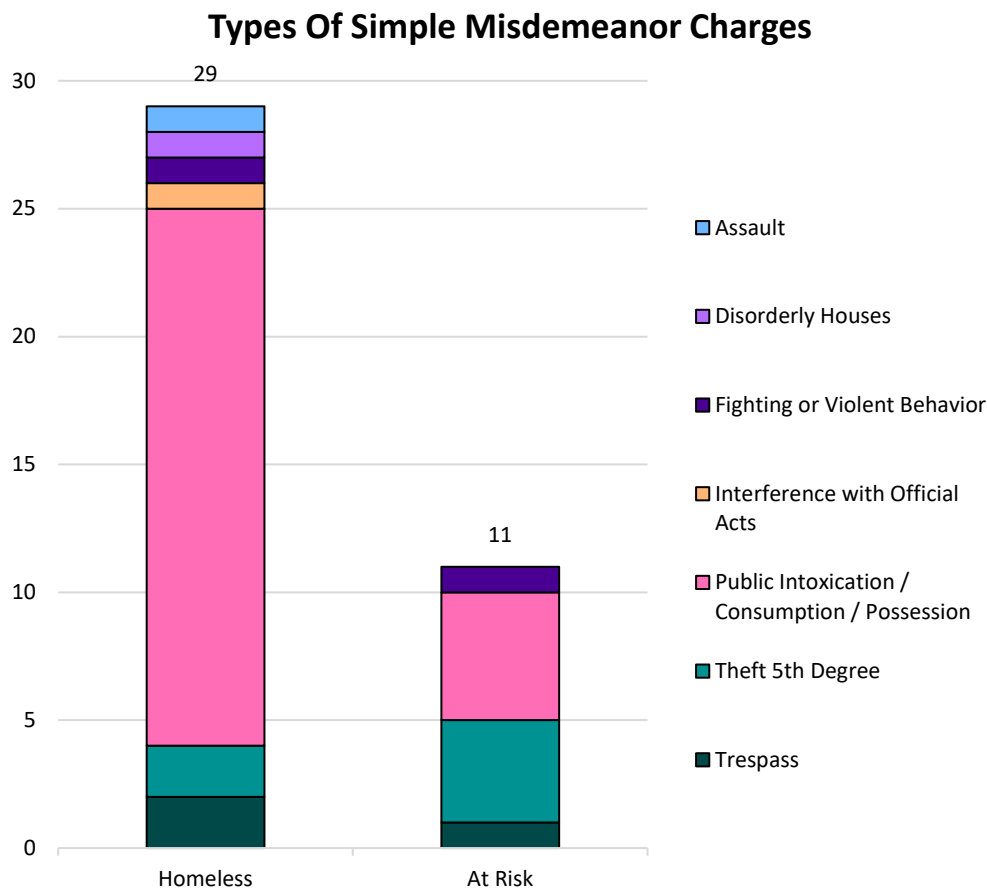

Figure 23 shows the simple misdemeanor charges broken down by the type of charge. Only four of the simple misdemeanors while homeless are for charges that are not commonly associated with homelessness.

Figure 24 shows the different types of medical services that are received on the same day as either a call to service, or the offense date for a court interaction. The category 'ambulance to hospital' in this chart indicates that ambulance services were utilized and the participant was then admitted to a hospital. Ambulance services alone indicate that an ambulance was used, but the participant was not admitted to a hospital.

We do not know if there is any causal relationship between these legal and medical interactions, since we do not have any timestamps on any of the calls.
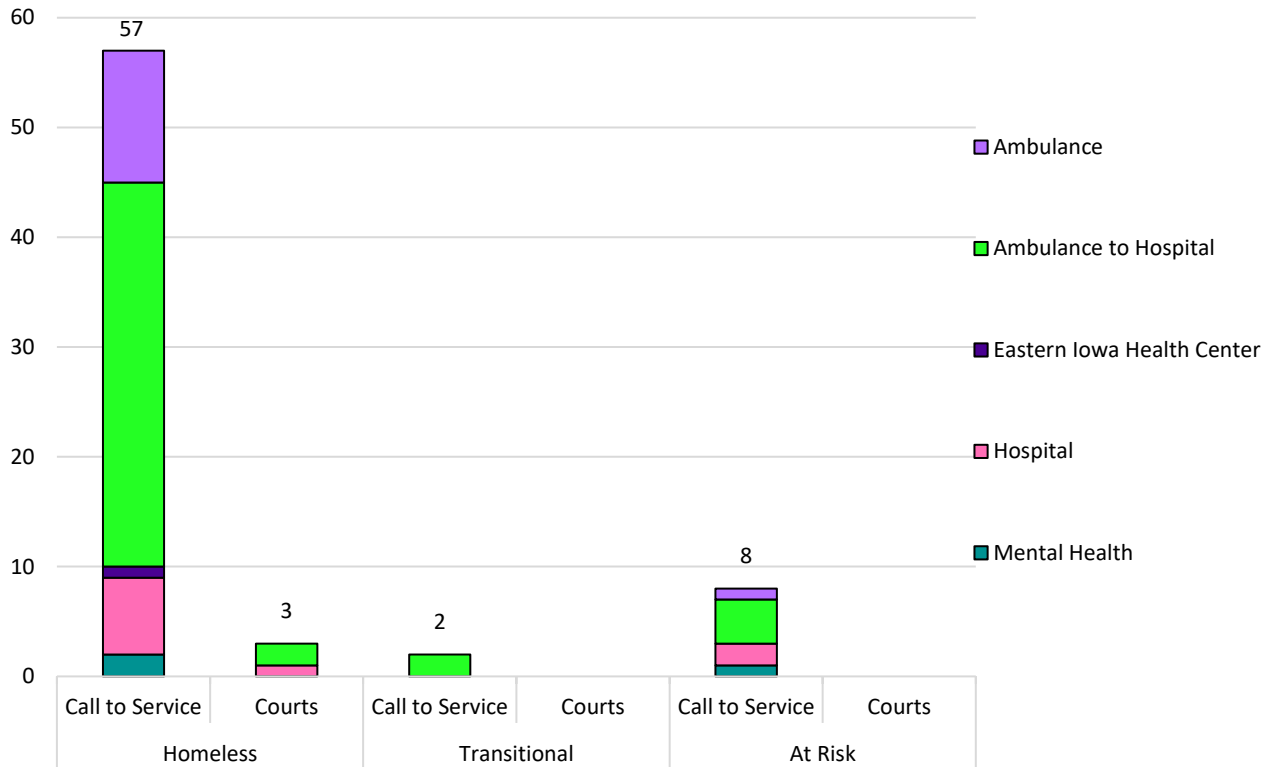
Co-Occuring Medical And Legal Interactions

Figure 24 shows the types of medical services that were received on the same day as calls to service and court-related offense dates.

Housing

There is a cost associated with housing people regardless of whether it is through emergency shelters, rapid rehousing programs, transitional housing, or other financial assistance. In Figure 25 we are looking at the total costs accrued by housing services for all eight participants from 2013 – 2018 and how those costs are associated with different programs.

In Figure 25, financial and rental assistance refers to any monetary assistance received from programs that are not otherwise specified. This can include money from Salvation Army and the Ecumenical Community Center. Outreach refers to a program where a case manager will connect individuals and families experiencing homelessness to additional services. In this study, outreach only provides case management services and no direct financial assistance.

Prevention refers to programs that try to keep people from experiencing literal homelessness. They can provide both casework and financial assistance.

Rapid Rehousing (RRH) programs provide both financial and caseworker support to individuals and families experiencing literal homelessness. Depending on the program's specifics, RRH can work with individuals up to 6 months and can help cover the costs of a deposit and several months' rent, based on the participants' need.

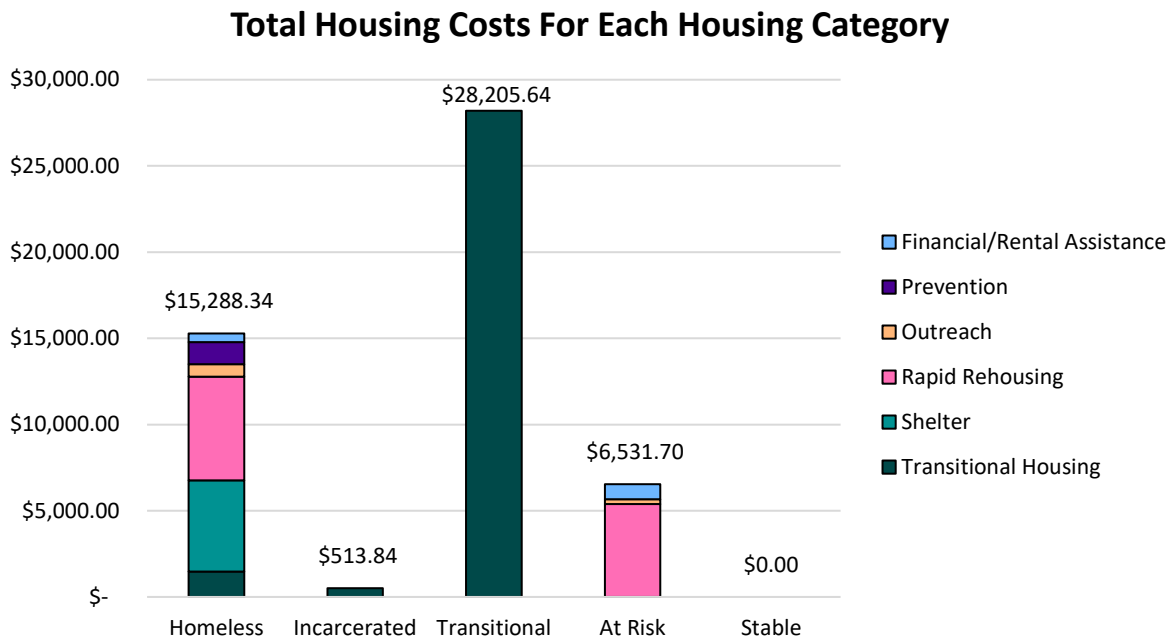## Total Housing Costs For Each Housing Category

Figure 25 shows the total costs associated with housing entities, and the costs associated with each program. There were not costs associated with housing services while participants were in stable housing situations.

Figure 26 shows the housing interactions for each housing category. When participants were experiencing transitional housing, they did not need to access other housing services or assistance. Here, programs that do not have a trackable cost include aftercare with the Catherine McAuley Center and Waypoint's day program. These provide support and household necessities, but it is difficult to track costs associated with their utilization. However, since these programs can affect the quality of life of participants, we decided that it was important to include them in this analysis.

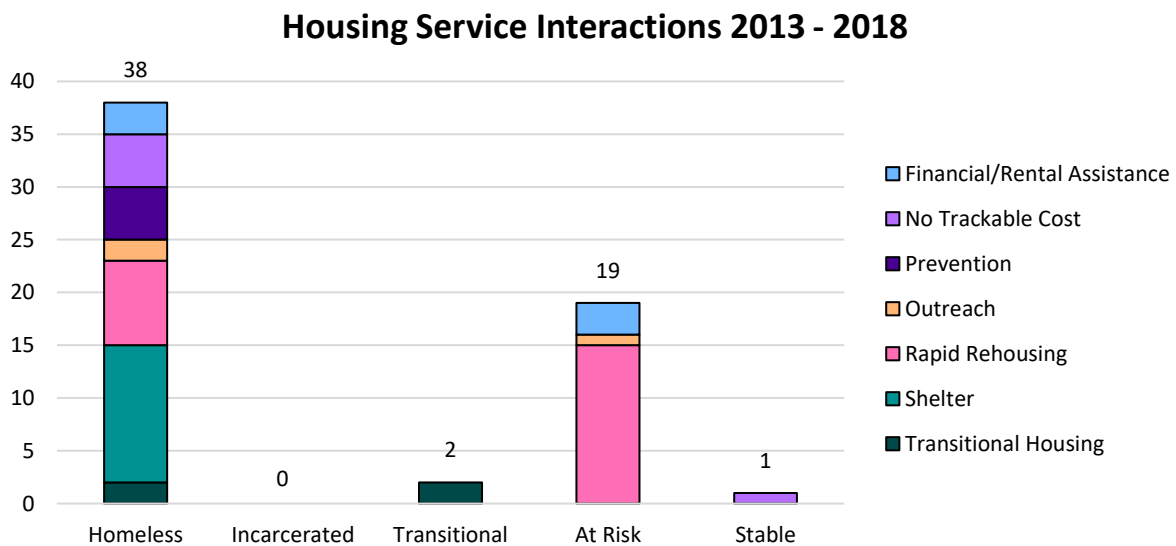## Housing Service Interactions 2013 - 2018

Figure 26 shows the number of interactions with housing services accrued over the past 3-5 years split among the types of service received.

As with the other systems, each participant utilizes housing services differently. This can be due to many factors; some participants are more aware of the potential services they could be using. Others cannot qualify for some

services – for example, in order to qualify for RRH someone needs to be literally homeless prior to receiving assistance – and others do not want to use some services. For example, Jamie has social anxiety and often prefers to sleep outside rather than in a shelter. Leo also never entered shelter. Whenever he experienced homelessness, he would sleep in his car, except for the weekends he would get to see his son. On those weekends he would rent hotel rooms so that he could ensure his son was safe and well cared for. These hotel costs are explored on page 33.
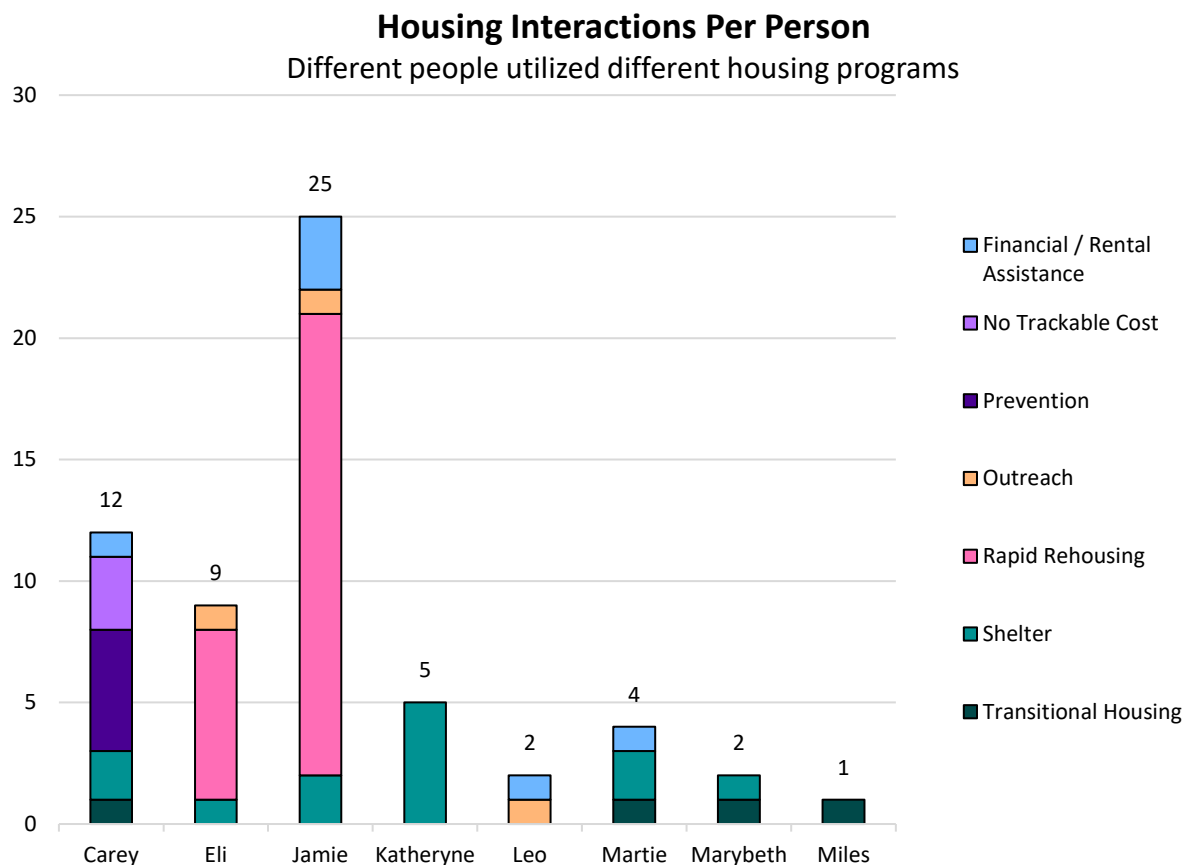

Figure 27 shows the number of interactions each participant had with various housing programs. This highlights that not everyone utilizes the same services.

RRH is a program meant to help individuals and families experiencing literal homelessness move into housing. Every payment from RRH that occurs on separate days are counted here as different interactions, since individuals can receive as few or as many payments as they require (within the limits of each program – often between 3 to 6 months of rental assistance). Figure 28 shows how those payments are associated with housing categories the month after a participant receives a payment.

In the first bar, labeled `homeless to risk', both Eli and Jamie received RRH assistance while they were experiencing homelessness.  These payments constituted both apartment deposits and first months' rent. Then, they moved to the `at risk' housing category the month afterwards (remember, one day of homelessness in a month categorizes that month as homeless). There were over 10 months for Jamie for which rapid rehousing was beneficial to him maintaining housing, even if it is 'at risk'- this is still significantly better than experiencing homelessness.

When Eli received his second-to-last payment, he moved from 'at risk' to 'homeless'. This indicates that he lost his housing the month after receiving a payment, and then the following month (categorized as homeless) he had received a final payment. This indicates that he likely lost his housing during that month, even if he was housed at the beginning of that month.

Rapid Rehousing Housing Changes

Change in housing from the month receiving RRH to the following month
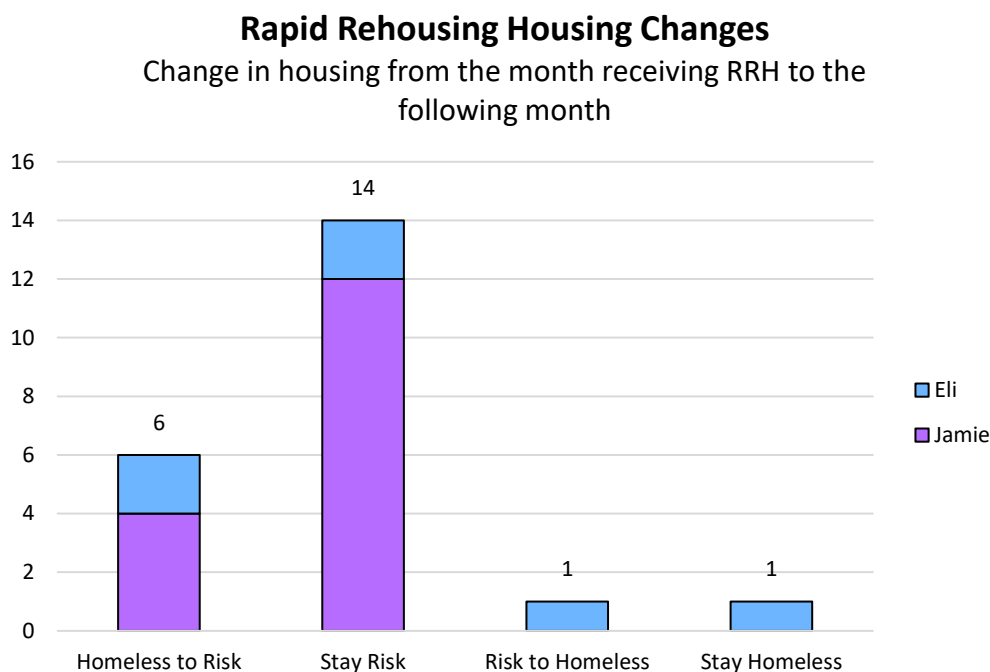
Figure 28 shows how housing fluctuations occurred for the participants who received rapid rehousing.

Individual Stories

Carey

Carey	1	2	3	4	5	6	7	8	9	10	11	12
2013							H	H	H	H	H	H
2014	H	H	H	H	H	H	H	H	H	H	H	H
2015	H	H	H	H	H	H	H	H	H	H	H	H
2016	H	H	H	H	H	H	H	H	H	H	H	H
2017	H	H	T	T	T	T	T	T	T	T	T	S
2018	S	S	S	S	S	S						

Carey is an example of someone for whom her cost and utilization of services dropped as she progressed to more stable housing categories.
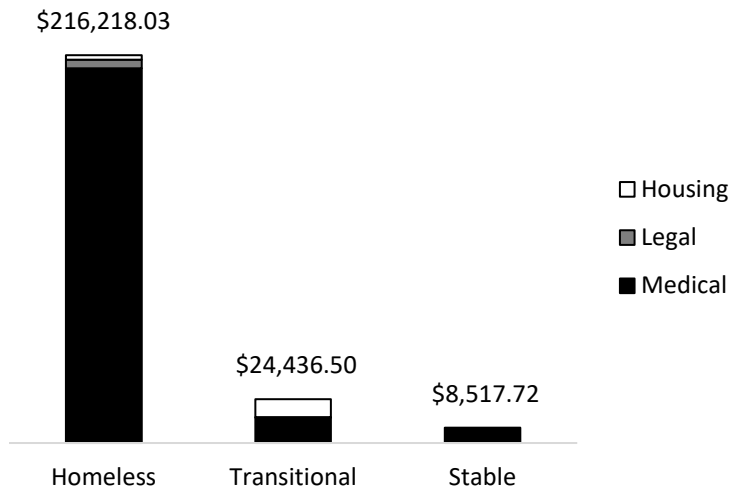
Figure 29 shows the financial costs associated with Carey and the number of interactions she has had with the three systems.

As Carey progressed through housing categories, both the costs of services she utilized and the number of interactions dropped. In Figure 30, we can see that Carey has more medical interactions while stably housed than while in transitional housing. This makes sense; we don't want someone to have zero 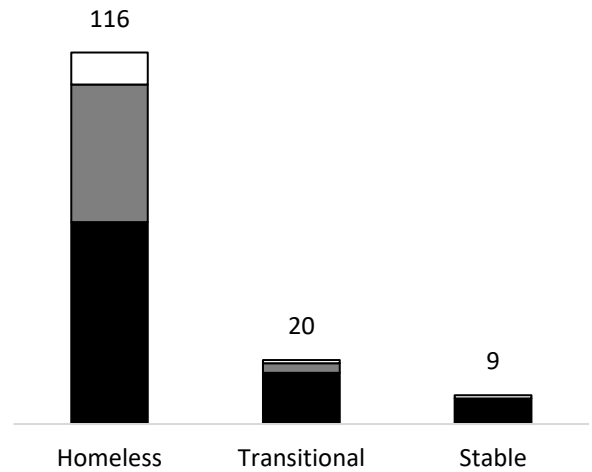medical interactions as that indicates that they may not be caring for themselves properly. Thus, it was both acceptable and expected for Carey to continue needing medical services once she was stably housed. However, the fact that Carey's type of medical utilization shifted so dramatically in terms of emergency room visits is a good sign – it means that she's likely able to now access preventative health care in ways she wasn't able to before.
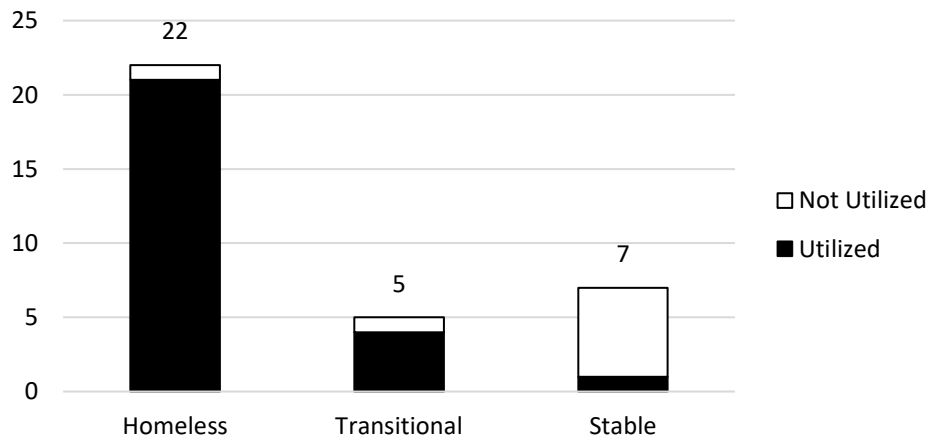
Figure 30: Carey's ER utilization per housing category. There is a huge decrease not only in her hospital visits, but also in emergency room utilization.

Additionally, looking at her legal history (Figure 31), we can see that her court interactions while she was homeless were all civil. Each of them is in regards to a property manager or management company, which indicates that they were likely associated with evictions. Recall that in our methodology (page 41), a month is

categorized as 'homeless' if someone spent just one day that month homeless, even if they had been living in an apartment the majority of a month. Although many of the civil charges were eventually dismissed, they still took time and were costly. The only court interaction she had while in transitional housing was in regards to her divorcing an abusive partner. This led to an improvement in her quality of life.

Carey's Court Interactions
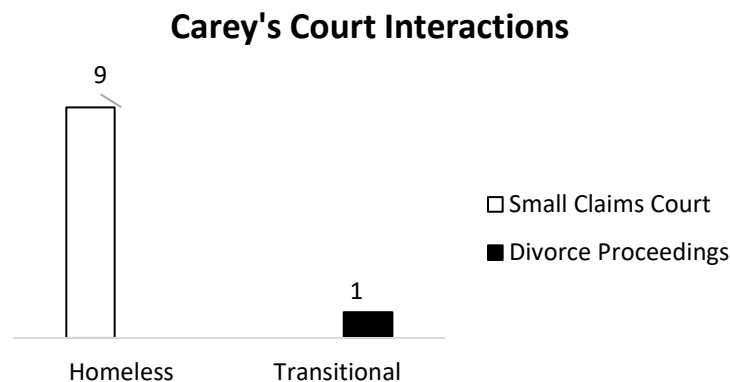
Figure 31: Carey's court interactions. The interaction accrued while in transitional housing led to an improvement in her quality of life.

Eli

Eli	1	2	3	4	5	6	7	8	9	10	11	12
2013							H	H	H	H	H	H
2014	H	H	H	H	H	H	H	H	H	H	H	H
2015	H	H	H	H	H	H	H	H	H	H	H	H
2016	H	H	H	H	H	H	H	H	H	H	H	H
2017	H	H	H	H	H	A	A	A	A	A	A	H
2018	H	H	H	H	H	H						

Eli is the highest cost utilizer in this study. Over the past 5 years, the services that he has utilized has totaled to $684,930.76 while homeless (Figure 32).

Eli's Total Costs 2013 - 2018

Eli's Interactions 2013 - 2018

Figure 32: Eli's individual costs and interactions with the housing, medical, and legal systems.

28

Eli had not utilized housing services until 2016, but had been experiencing homelessness for many years prior to that. He had become a part of the homeless community in Linn County, and pointed many people who were newly-homeless towards resources. Eli mentioned that he had a difficult time accepting any homeless assistance because, as he said, he knew how to 'make it on his own' and didn't want to take resources away from people who may have needed them more.

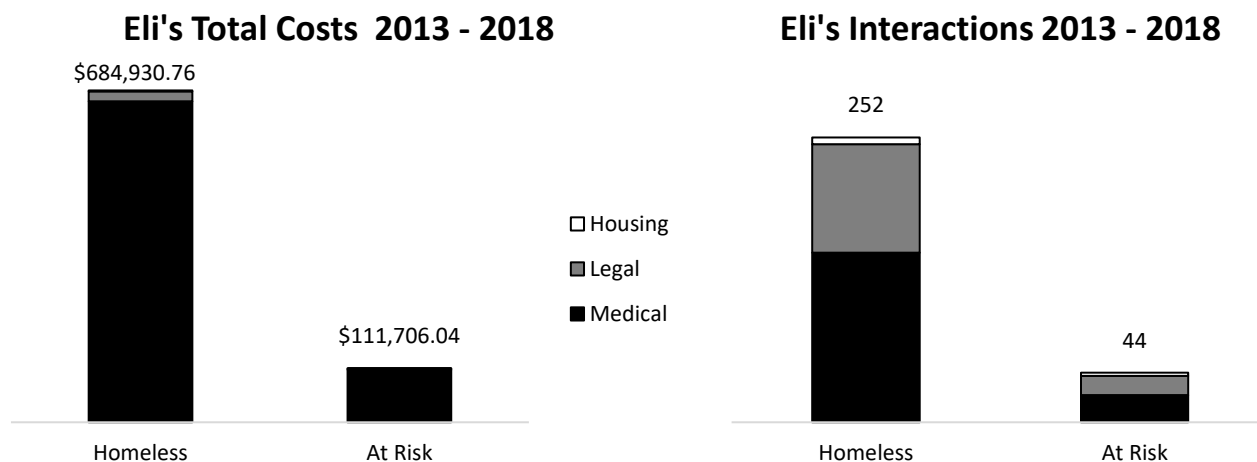Eli had been a frequent utilizer of both the medical and legal systems in Linn County. This indicates that if there had been more intensive collaboration between these three systems, he may have been identified and connected to intensive housing services earlier, thereby possibly improving his quality of life and saving money for the community.

When he was housed, he was living in an apartment where on a given night there would be 9 – 12 other people staying. Both his living arrangements and the jump in average costs per month he experienced indicate that he may have benefitted from a program that offered more intensive services than Rapid Rehousing.

For example, if Eli had the more intensive supportive structure of a program such as transitional or long-term supportive housing, it's possible that we would have seen a drop in the costs of service utilization similar to Carey. Figure 36 shows both his actual and projected average costs per month if he had followed the same trends as Carey in terms of percentage of total costs dropping. Eli's initial homeless costs are lower for the projectect costs than the real costs because the projected costs are calculated only from the costs accruued prior to Eli experiencing at-risk housing.

Average Cost Per Month For Each Housing Category

Showing Eli's projected costs if he had entered transitional housing instead of at risk and followed the same trends as Carey, compared to his actual costs
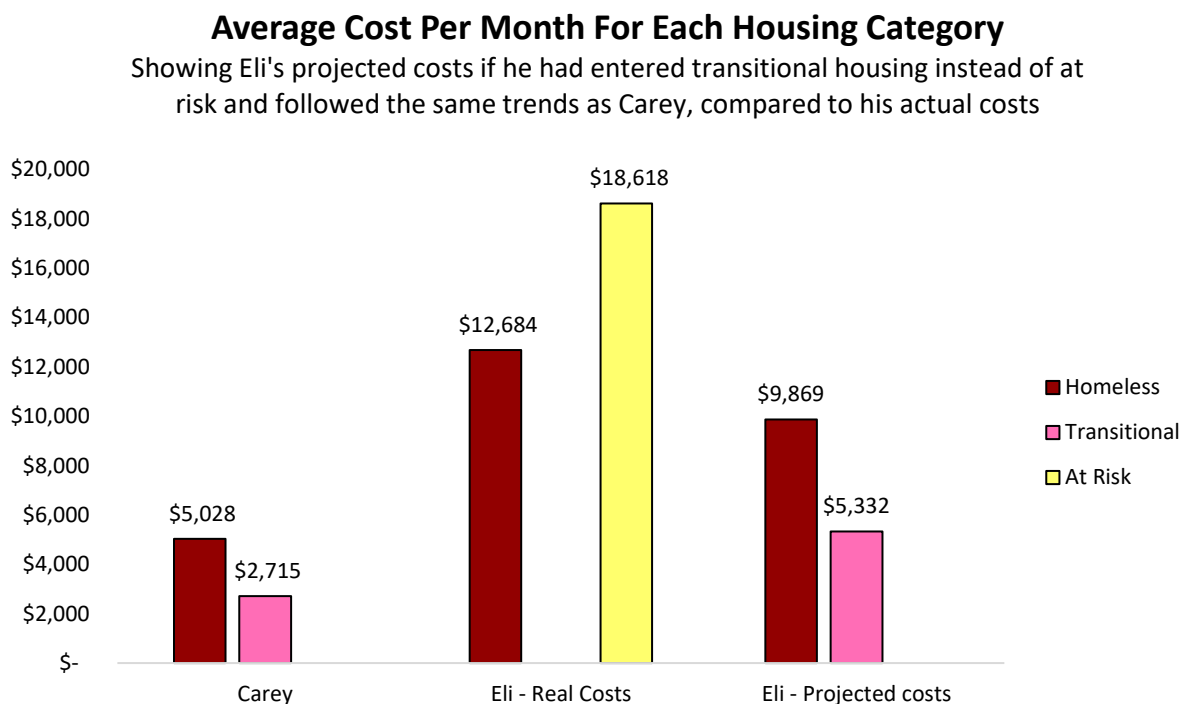

Figure 33 shows the actual and projected costs for Eli had he been placed into a more intensive housing program instead of RRH.

Jamie

Jamie	1	2	3	4	5	6	7	8	9	10	11	12
2013						A	A	A	A	A	A	A
2014	H	H	H	H	H	H	H	H	H	H	H	A
2015	A	A	A	A	A	H	H	H	H	H	H	H
2016	H	H	H	H	A	A	A	A	A	A	A	A
2017	A	A	H	H	H	A	A	A	H	H	H	H
2018	A	A	A	A	A	A						

Jamie had been in and out of homelessness for the scope of the study. From a young age, he struggled with mental illness as he started to hear voices and was later diagnosed with scizophrenia. Since he's lived in Linn County, he has been working fairly consistently for the same company, even while he was experiencing homelessness. His work is his safe space; he feels supported and secure in his environment there.

When he was housed he was often at risk of losing his housing due to his income. In 2018, he was housed with an agency who accepted late rent. He made enough to pay his rent in full each month, but never all at once.

Jamie has utilized all three systems repeatedly, and has spent close to the same amount of time in each housing category he experienced – 29 months homeless, 31 months at risk. On average, he had about 2 interactions a month while homeless, and 2.5 interactions per month while at risk. These patterns and his repeated experiences of homelessness indicate that he might have benefitted from a more intensive service during this time period.

Jamie's legal interactions are primarily calls to service. The few court cases he does have are simple misdemeanors (4 while homeless, 4 while at risk), evictions (2 while homeless), and one serious misdemeanor (at risk) that was eventually dismissed.

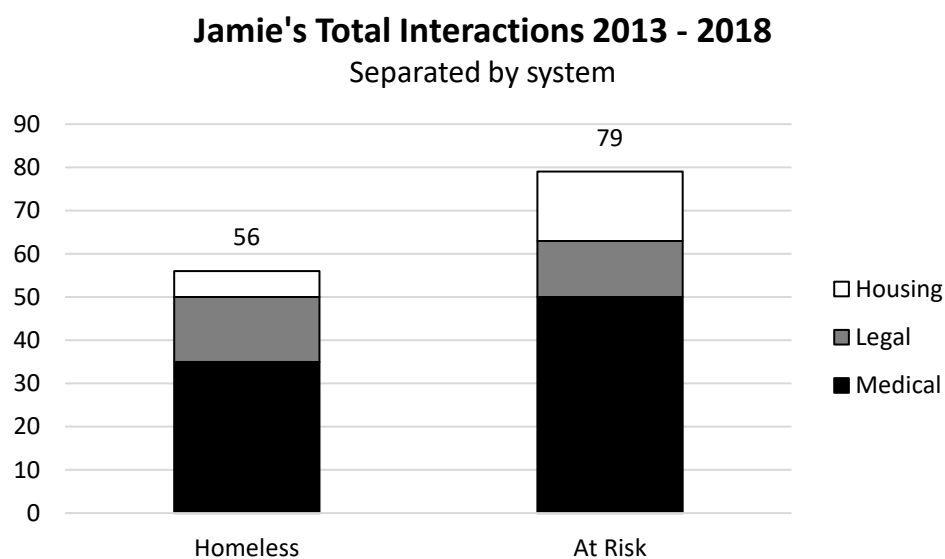**Jamie's Total Interactions 2013 - 2018**
Separated by system

Figure 34 shows Jamie's total interactions with the medical, legal, and housing systems from 2013 - 2018.

While homeless, Jamie only spent one week in shelter. He has significant mental health issues, and does not feel safe in a shelter environment. He would often prefer to couch surf or sleep outside. The majority of his housing interactions are through Rapid Rehousing or other sources of financial assistance, which helped get him housed and then helped him maintain housing.
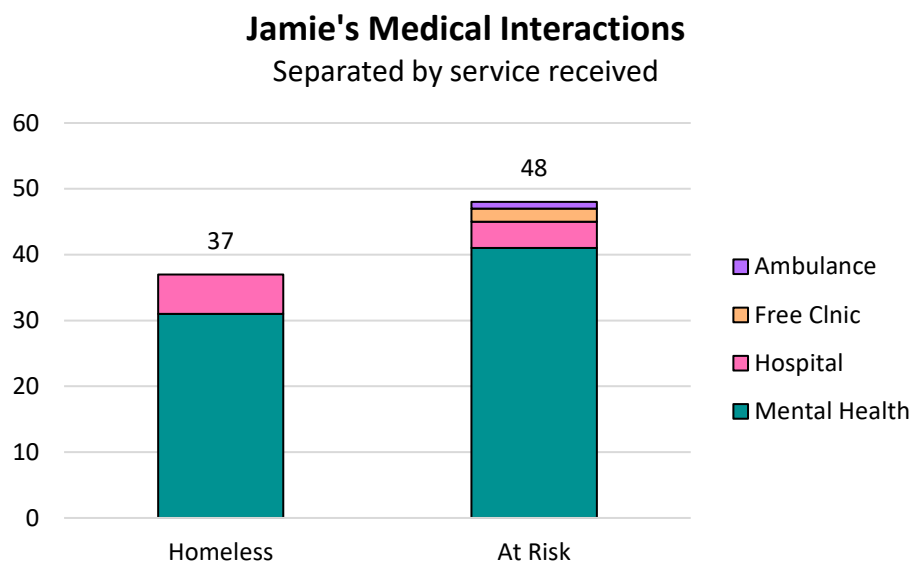
Jamie's Medical Interactions
Separated by service received

Figure 35 shows Jamie's medical interactions from 2013 - 2018. A large number of these interactions are in regards to mental health.

Fortunately, Jamie has been able to maintain relatively consistent access to mental health services, even while he was experiencing homelessness (Figure 35). The biggest barriers that he has to utilizing mental health services have been transportation and income. He currently makes too much to be eligible for medicaid, and has struggled with maintaining health insurance that will cover his appointments and prescriptions. For Jamie, his medication and therapy appointments are essential to maintaining his functioning.

Katheryne

Katheryne	1	2	3	4	5	6	7	8	9	10	11	12
2013												
2014												
2015							A	A	A	A	A	A
2016	A	A	A	A	A	A	A	A	A	A	A	A
2017	A	A	H	H	H	H	H	H	H	H	H	H
2018	H	H	H	H	H	H						

Katheryne is the only young adult participating in this study. Unfortunately, due to mental health complications, it was impossible to arrange follow-up interviews and we know there are organizations from which we do not have information regarding her utilization and costs. However, since she still has average costs comparable to other participants, we decided to keep her in this study and acknowledge the descrepencies.

Katheryne's Costs 2015 - 2018

$18,373.64

$16,638.72

Housing
Legal
Medical

Homeless   At Risk
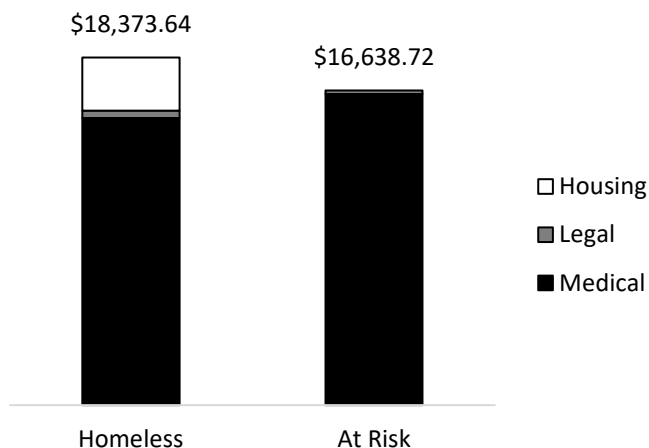
Katheryne's Interactions 2015 - 2018
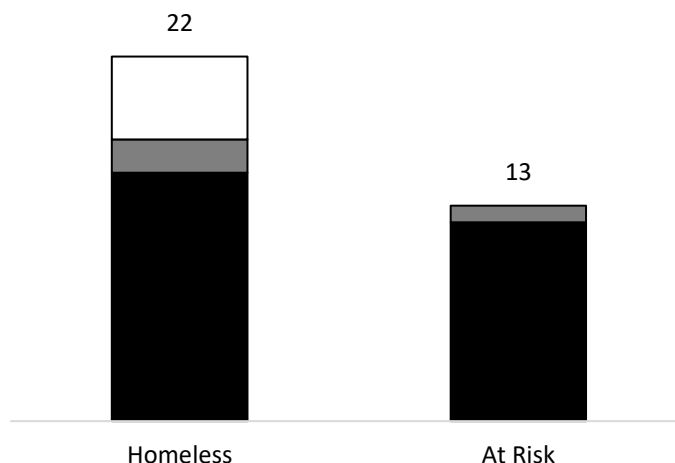
22

13

Homeless   At Risk

Figure 36 shows Katheryne's total costs, on the left, and interactions, on the right, over the past three years.

In 2015 and 2016, Katheryne was living with her mother. She described getting into frequent arguments and fights with her mother which would result in her getting kicked out of the house for several nights every few weeks. During this time, she would pack a bag and stay the night with relatives or friends. There are indications in medical records that these fights would be severe enough to be considered domestic violence. She eventually left her mother to go into foster care when a fight almost resulted in her death.

In 2017 she stayed at Foundation 2's youth shelter off-and-on for several months. Since turning 18, she has left the shelter and has been living in a car and occassionally sleeping outside.

Leo

Leo	1	2	3	4	5	6	7	8	9	10	11	12
2013							S	S	S	S	S	S
2014	S	S	S	S	S	S	S	S	S	S	A	A
2015	A	A	A	H	H	H	H	H	H	H	H	H
2016	H	H	H	H	H	H	H	H	H	S	S	S
2017	S	S	S	S	S	S	S	S	S	H	H	H
2018	H	H	H	H	H	H						

Leo is the participant who accounts for the least amount of costs during this study, and was the only individual to achieve and maintain stable housing without intensive services during the scope of the study. This indicates that, although he has experienced persistent homelessness, he may not have the same barriers to acquiring and maintaining housing as other participants in this study.

Leo experienced two prolonged periods of homelessness. The first originated due to his partner leaving, and the following depression he experienced caused him to lose his job. The second period also was triggered by a loss of a job.

During each period of homelessness, Leo would live out of his truck. However, a distinct exception to this rule would be whenever he had custody of his son; in the summer he would care for his son every weekend, Thursday through Sunday, and during the school year it was every other weekend. During these days he would rent hotel rooms to ensure that his son had a safe place to stay. The estimated costs of these rooms can be seen in Figure 37, compared to the financial and caseworker assistance he received from housing services.
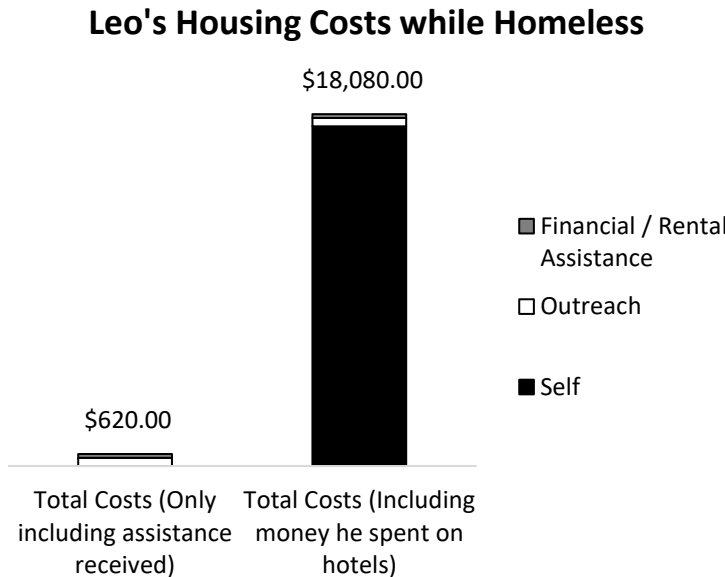
Leo's Housing Costs while Homeless

Figure 37 compares Leo's housing costs associated with services and the housing costs he paid out of his pocket while homeless.

Leo expressed a sentiment similar to Eli; he had not initially reached out to housing services to receive assistance because he knew he could eventually 'make it out' on his own, and he didn't want to take services away from other people. However, if he had access to services earlier, he may not have spent as much time homeless and some of the $17,000 he spent on hotels could have been used to pay rent or a deposit instead.

Martie

Martie	1	2	3	4	5	6	7	8	9	10	11	12
2013							H	H	H	H	H	H
2014	H	H	H	H	H	H	H	H	H	H	H	H
2015	H	H	H	H	H	H	H	H	H	H	H	H
2016	H	H	H	H	H	H	H	H	H	H	H	H
2017	H	H	H	H	H	H	H	H	H	H	H	T
2018	T	T	T	H	H	H						

While Martie, a trans man, primarily couch surfed and experienced domestic violence during his time homeless, he also spent time literally homeless. He was living with a partner who would physically abuse him for much of that time, and sustained injuries that were disabling. He had needed surgery to address one of these disabling conditions for years, but surgeons refused to treat him until he had a safe environment to recover in. When he entered the CMC's transitional housing program, he was finally housed and able to get that surgery. The surgery

cost over $100,000, but greatly improved his quality of life. He is now able to walk, ride a bike, and work in ways that he had been physically unable to do so before.

Martie's Medical Costs 2013 - 2018

$220,722.18

$14,532.89

Homeless   Transitional

Legend:
- ☐ Alcohol and Drug Treatment
- ■ EIHC
- ■ Hospital
- ■ Mental Health
- ■ Other

Martie's Medical Interactions 2013 - 2018

154

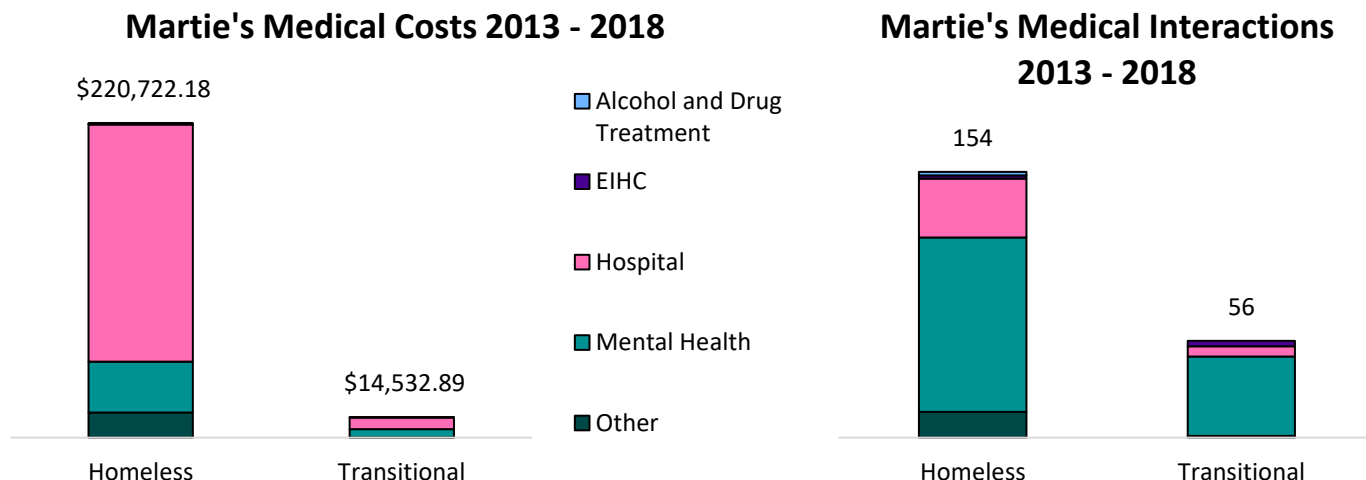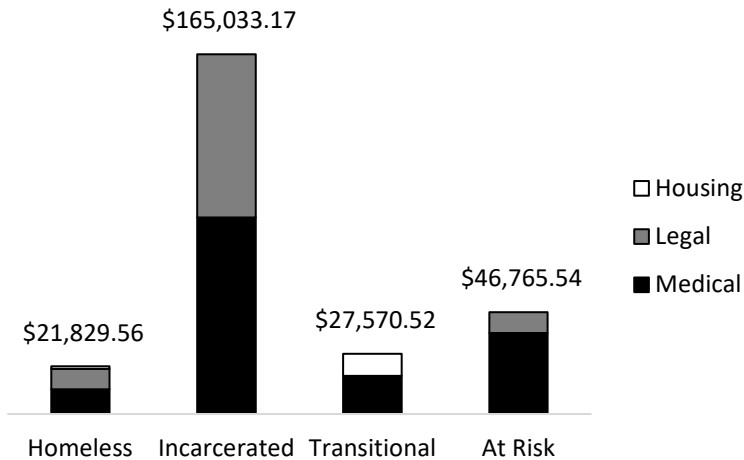56

Homeless   Transitional

Figure 38 shows Martie's medical costs and interactions from 2013 – 2018. Although the majority of his medical costs are associated with hospitals, the majority of his medical interactions are associated with mental health.

Although he had the surgery while he was in transitional housing, at the end of that month he left transitional housing and returned to homelessness. Due to our methodology, this means that the $100,000 cost of the surgery is considered to be accruued while he was homeless. If we had shifted the methodology to group that cost with his transitional housing, then his total medical costs for both homeless and transitional housing categories would have been $120,123.59 and $115,109.48 respectively.

Marybeth

Marybeth	1	2	3	4	5	6	7	8	9	10	11	12
2013							A	A	I	I	I	I
2014	H	I	I	I	A	A	A	A	A	A	A	A
2015	A	A	A	H	H	H	H	I	I	I	I	I
2016	I	I	I	I	I	H	H	H	I	I	I	I
2017	I	I	I	I	I	I	I	I	H	T	T	T
2018	T	T	T	T	T	T						

Marybeth has experienced a lot of time incarcerated in prisons and halfway homes. However, with few exceptions, every time she was released from a facility she either did not have a stable housing situation to go to, or would quickly lose that housing and end up experiencing homelessness. Throughout the study Marybeth never experienced stable housing.

Marybeth Costs 2013 - 2018

$165,033.17

$21,829.56 $27,570.52 $46,765.54

Homeless   Incarcerated   Transitional   At Risk

☐ Housing
▨ Legal
■ Medical

Marybeth's Interactions 2013 - 2018

45   36

24   22

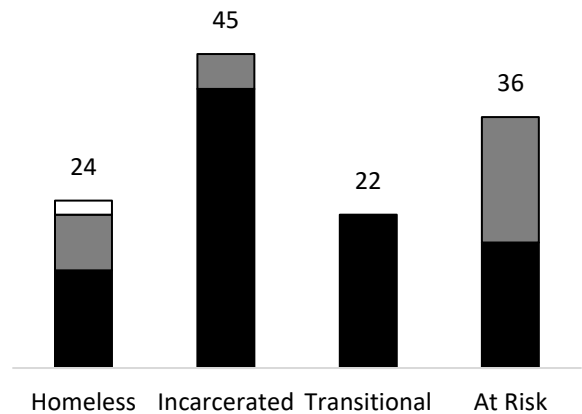Homeless   Incarcerated   Transitional   At Risk

Figure 39 shows Marybeth's total costs and interactions from 2013 - 2018. The majority of her interactions are associated with the medical system.

It wasn't until her last incarceration in 2017 that she was able to finally get into transitional housing with the CMC. However, these continuous bouts with homelessness bracketing incarceration indicate that if she had been identified and connected to supportive services earlier – instead of shelters, which are the only other housing services she utilized – then it's possible that she may have been able to maintain housing and avoid these incarcerations.

Miles

Miles	1	2	3	4	5	6	7	8	9	10	11	12
2013							A	A	A	A	A	A
2014	A	A	A	A	A	A	A	A	A	T	T	T
2015	T	T	I	I	I	I	I	I	I	I	I	I
2016	I	I	I	I	I	I	I	I	I	I	I	I
2017	I	I	I	I	I	I	A	A	A	A	A	A
2018	H	H	H	H	H	H						

Miles is the only participant to have participated in HACAP's transitional housing program. He had been living with his partner of several years, and moved into transitional housing in 2014 with their children. During this time, he had been experiencing domestic violence from his partner towards both himself and his children.
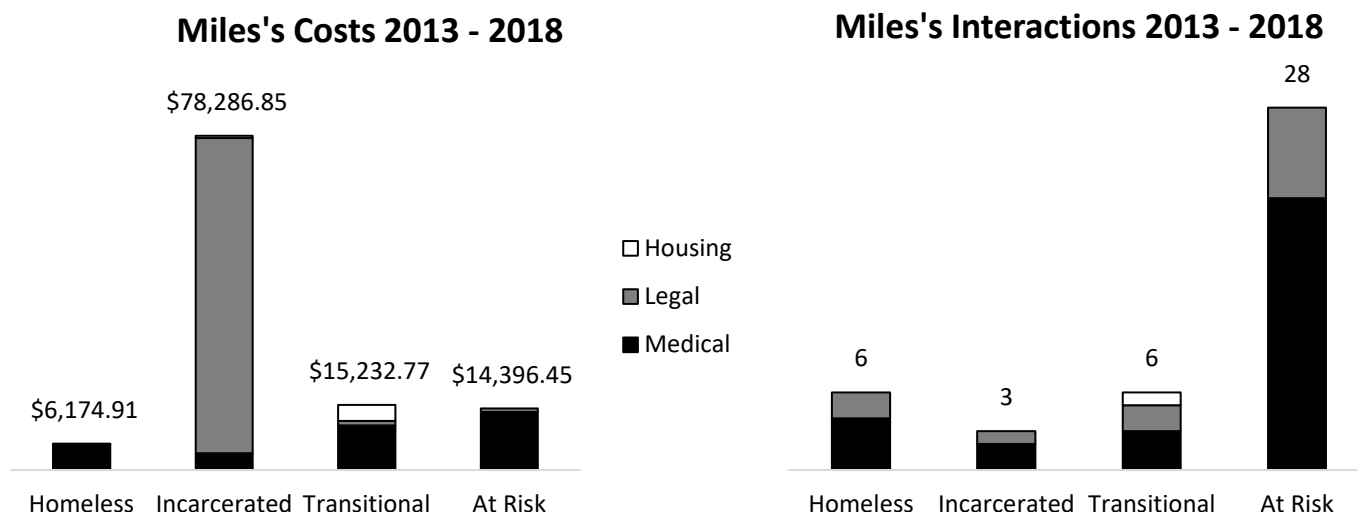
Miles's Costs 2013 - 2018

- $78,286.85 (Incarcerated)
- $6,174.91 (Homeless)
- $15,232.77 (Transitional)
- $14,396.45 (At Risk)

Categories: Homeless, Incarcerated, Transitional, At Risk

Legend: ☐ Housing, ▓ Legal, ■ Medical

Miles's Interactions 2013 - 2018

- 6 (Homeless)
- 3 (Incarcerated)
- 6 (Transitional)
- 28 (At Risk)

Categories: Homeless, Incarcerated, Transitional, At Risk

Figure 40 shows Mile's total costs and interactions from 2013 - 2018.

In 2015, he was charged with domestic abuse and child endangerment and sentenced to two years in prison. When he got out, he returned to his partner, but finally left in 2018 and has been experiencing both literal homelessness and couch surfing ever since.

Conclusions and Recommendations

It is clear that these costs can be large enough to be a concern in the Linn County area. However, not only do the medical, legal, and housing systems lack the ability to identify and communicate about these frequent users across systems, they lack adequate programs and housing options to help people move from persistent homelessness into stable housing. Thus:

- Establishing closer partnerships and data-sharing procedures may help to identify and get high-cost individuals connected to services;
- Increasing support for intensive service programs such as transitional housing and long-term supportive housing will likely be beneficial to individuals experiencing homelessness, as well as financially beneficial to the Linn County community. For many of the high-cost users, the cost of these supportive structures is still less expensive than if they were to remain homeless.

Definitions

Homeless agencies use language that is often interchangeable between organizations. However, some of these words and phrases have slightly different definitions depending on the agency, and many of them will not be familiar to the public. Thus, a short list of definitions is below.

1. **Chronic Homelessness vs. Persistent Homelessness**

   Chronic homelessness is a definition from HUD that describes "unaccompanied homeless individuals with a disability, or a family with at least one adult member who has a documented disability, that has either been continuously homeless for 12 consecutive months or more OR has had at least four episodes of homelessness adding up to 12 consecutive months in the past 3 years. In this case, the term 'homeless' means a person sleeping in a place not meant for human habitation (e.g., living on the streets), in an emergency homeless shelter, or in a Safe Haven as defined by HUD*." (Continuum of Care Planning & Policy Council, 2017)*

   Since we wanted to broaden the pool of potential participants for this project, we decided to use the term *persistent homelessness* instead of chronic homelessness*.* We worked with people who had experienced a total of at least 12 months of homelessness, but we focused on the past 3-5 years (depending on age) of their history. We did not consider disabling conditions. A person could have experienced any of the four categories of homelessness (Table 3) in order to be considered homeless, not just the first category.

2. **HUD's Homeless Categories:**

   These are the categories of homelessness provided by HUD. They are in no particular order of severity. However, the programs and resources that any one person or family is eligible for can change depending on the category of homelessness that they are experiencing.

1. *Literally Homeless* An individual or family who lacks a fixed, regular, and adequate nighttime residence and has a primary nighttime residence that is a public or private place not meant for human habitation (such as sleeping outside, in a car, etc.). This includes living in shelters designed to provide temporary living arrangements (ex: emergency shelters, transitional housing, hotels and motels). Or, if that person is exiting an institution where they had resided for 90 days or less and who resided in an emergency shelter or place not meant for human habitation immediately before entering that institution.	3. *Homeless under other Federal Statutes* Unaccompanied youth under 25 years of age, or families with children and youth, who do not otherwise qualify as homeless under this definition, but who are defined as homeless under the other listed federal statues, have not had a lease, ownership interest, or occupancy agreement in permanent housing during the 60 days prior to the homeless assistance application, have experienced persistent instability as measured by two moves or more during the preceding 60 days, and can be expected to continue in such status for an extended period of time due to special needs or barriers.
2. *Imminent Risk of Homelessness* An individual or family who will immediately lose their primary nighttime residence provided that the residence will be lost within 14 days of the date of application for homeless assistance, no subsequent residence has been identified, and the individual or family lacks the resources or support networks needed to obtain other permanent housing.	4. *Fleeing/Attempting to Flee Domestic Violence (DV)* Any individual or family who is fleeing or is attempting to flee domestic violence, has no other residence, and lacks the resources or support networks to obtain other permanent housing

Table 3 shows the definitions for the four different categories of homelessness as defined by HUD. (Department of Housing and Urban Development (HUD))

3. **Housing Categories:**

For this project, we decided to lump all of the above HUD defined categories of homelessness into one category – homeless. The way we decided to label a certain month for any particular individual is described in the 'methodology' section (page 38). There is one exception: transitional housing is its own category. Due to the many support systems in place and the fact that entering transitional housing is a huge success for many people, we decided that it would be appropriate to separate those interactions from the other categories of homelessness for this analysis.

1. *Homeless*

   A participant was considered 'homeless' if they experienced any of the HUD categories of homelessness. The only exception is transitional housing, which has its own category in this study.

2. *Incarcerated*

   A participant was in a prison or halfway house for at least 90 consecutive days.

3. *Transitional*

   A participant was in a transitional housing program with either the Catherine McAuley Center (CMC) or the Hawkeye Area Community Action Program (HACAP). "Transitional housing is designed to provide homeless individuals and families with the interim stability and support to successfully move to and maintain permanent housing*." (Department of Housing and Urban Development, 2019)* These programs typically provide housing and support services from 6 months to 2 years.

4. *At Risk*

   A participant was housed but in a situation where, due to lease violations or unstable income, they were at risk of losing their residence. Examples include consistently paying late rent, unable to flee domestic violence, unable to pay rent but have "forgiving" landlords, etc.

5. *Stable*

   A participant was a leaseholder or had a partner who was a leaseholder for at least 90 days without their housing being at risk.

4. **Permanent Supportive Housing vs. Long-Term Supportive Housing**

Permanent Supportive Housing (PSH) is a phrase used and defined by HUD:

"PSH [is housing without a designated length of stay that] can only provide assistance to individuals with disabilities and families in which one adult or child has a disability. Supportive services designed to meet the needs of the program participants must be made available to the program participants." *(Housing and Urban Development, 2015)*

Long-term supportive housing is a local definition, referring to housing programs that also provide indefinite leasing or rental assistance paired with supportive services, but there is no stipulation that the participant must have a disability or experience chronic homelessness per HUDs definition.

5. **Frequent User / High Cost User / Super Utilizer**

Community definitions of frequent, high-cost, and super utilizers vary. For the purpose of this study these terms are interchangeable and refer to individuals and families who frequently use "jails, shelters, hospitals and/or other crisis public services" *(CSH, 2019)*. The number of people in Linn County who are frequent users, and the cut-off to evaluate whether someone is a high-cost user or not, are not statistics that can currently be determined. Thus, these are general terms to describe a pattern of behaviors and interactions associated with an individual. In some instances we have selected participants who have experienced long or repeated episodes of homelessness, but in collecting further information about their service interactions we've learned they are not particularly high users of other services.

6. **Interaction**

An interaction is the first instance that a participant accessed a service. For example, if a participant enters a hospital and stays for one week, that is recorded as one interaction. The interaction (in this case the hospitalization) is recorded in the month when it began, and is associated with the housing category for that month. There are some exceptions to this for very long-lasting interactions which are detailed in the methodology on page 41.

Methodology

Identifying Participants

Unlike the majority of other recent cost studies *(Goldberg, 2017) (Daniel Fleming, 2015) (Culhane D. , 2018) (Canganelli, 2018) (The National Center on Family Homelessness, 2009) (Culhane D. P., 2008) (Laura S. Sadowski, 2009) (Melany Mondello, 2007) (Coalition for the Homeless, 2002) (Anirban Basu, 2012) (The Heartland Alliance Mid-America Institute on Poverty, 2009) (University of Sothern Indiana Center for Applied Research, 2013)* that identify participants through randomization or electronic processes, we identified participants via caseworkers who had a general understanding of the housing and service utilization histories of each participant.

Since participants were identified by caseworkers and not by comparing service records to identify frequent users, we cannot be sure that we are looking at frequent users of these systems compared to the persistently homeless population of Linn County as a whole. We assume that at least two of our eight participants are outliers – one exceptionally high-cost and the other exceptionally low-cost – but we cannot be sure.

Typically, cost studies revolve around looking at either the entire population of those experiencing homelessness in a certain geographical location, or they focus on those experiencing chronic homelessness. We decided to focus on working with a small pool of individuals who experienced persistent homelessness in order to get individual, detailed histories and analysis.

Collecting Data

Due to the transience of the persistently homeless population, it can be difficult to get a complete and accurate representation of an individual's housing history and the costs associated with their services. When available,

we used records from agencies to help confirm housing histories and find exact costs, but many of the numbers we have are estimates. Since it is difficult to determine even rough estimates related to the number of times people accessed food banks, free meals, or transportation (such as bus tickets or gas vouchers), we chose not to include those costs in the analysis. **We instead focus exclusively on three major systems that keep consistent records – medical, legal, and housing.**

We collected five years of information from July 1st 2013 through June 30th 2018 for each adult participant (participants who were 25 years or older on July 1st 2018), resulting in a total of 60 months of history for each participant.

We discovered that it was difficult to find persistently homeless families or young adults (people who were 18 – 24 years old on July 1st 2018) who had stayed in Linn County throughout the study's five-year timeframe. Thus, we decided to collect information from July 1st 2015 – June 30th 2018 for any families or young adults we worked with, shortening the timeframe and making it more likely to find participants. This results in a total of 36 months of history for Katheryne, the young adult participant. This skews Katheryne's total costs when directly comparing her to the adults, but her average costs are comparable to many of the other participants.

In order to locate service records, we interviewed each participant to chart their housing history. This helped us identify when they had experienced homelessness and the services they utilized and organizations they had accessed from 2013 - 2018. Participants then signed releases of information (ROIs) so that researchers could access the appropriate records from agencies. Researches would follow up with organizations as necessary to ensure that they had as full and complete a record from each agency for each participant as possible.

We also utilized Iowa's Homeless Management Information System (HMIS), ServicePoint, to gather records and verify as much of the housing history as possible.

When looking at cost, we looked at the total amount billed or the total amount a service would have cost if it had been billed to the participant. We did not look at the amount that had been paid or written off, since the pay sources are often difficult to determine and looking at the total amount billed is the most consistent metric to use. We are aware "true" costs of medical care are difficult to determine and can vary between health institutions, thus we chose one method – the use of billed services – which is relatively consistent amongst providers.

Note that we were unable to arrange any follow-up meetings with Katheryne, and we are missing cost information for her from the University of Iowa Hospitals & Clinics, Four Oaks, and Cedar Rapids Police calls to service. However, we decided to keep her in this study providing that we acknowledge these deficiencies in data, since she has costs comparable to other participants even with this missing information.

Estimations

There is no perfect estimate for the time participants spent with caseworkers. Unless agencies provided exact records, we assumed that caseworkers spent an hour a week with each participant at a cost of $17.50 per hour for the length of time a participant was enrolled in a housing program.

The Cedar Rapids Police Department records calls to service, or recorded interactions with a participant. These calls are not necessarily indicative of a crime; just that there was some sort of interaction with the police. The amount of time spent by police on these calls is estimated to be one hour per call with only one officer involved,

as actual time can range from fifteen minutes to several hours with multiple officers. These costs ranged from $74.00 per hour to $81.00 per hour, depending on the year.

Similarly, we calculated the costs of staying in prisons and halfway homes from the average cost per inmate per day. We concluded that these costs should be considered 'legal' costs and not 'housing' costs, both based on precedent from other cost studies *(Daniel Fleming, 2015) (Goldberg, 2017)* and from recommendations of those working in the field.

Due to external complications, the local ambulance service only has records from November 2017 to the present. Therefore, we estimated ambulance costs by compiling pre-hospital report summaries from hospitals, which are documents provided by ambulance operators. When pre-hospital records were unavailable, we used medical records from the hospital stay whenever it was indicated the patent arrived via ambulance. Each ambulance ride is estimated to be $1,000.

Court costs were aggregated from Iowa Courts Online. It is impossible to tell whether any of the bills listed are payments made directly by the participants themselves, or if the participants are being garnished for the payments. Thus, we look at the total costs, and not at how much of the bill was paid.

The free clinics in the Linn County area do not charge or bill their clients. Thus, any costs associated with those services are estimates based off minimums charged for hour-long doctors' appointments and any prescriptions.

Assigning Housing Categories

If there was indication that a participant spent at least one day homeless in a given month, that entire month was marked as `homeless'. This follows HUD's definition *(U.S. Department of Housing and Urban Development, 2016)* of determining the number of months people experience homelessness. We followed the same criteria for determining the other housing categories using the flow chart below. If someone had not experienced homelessness in a month, we checked to see if they had experienced at least one day of incarceration, and so on.

Homeless -> Incarcerated -> Transitional -> At Risk -> Stable

We treated interactions that last longer than two months a little differently. An interaction like this is listed as occurring during the initial housing category, but the cost is appropriately divided between the housing categories the interaction overlaps. This is because when an interaction lasts longer than two months, it can both extend into different housing categories and disproportionately affect the costs of those housing categories.

An example: someone stays in an emergency shelter from January 1st through January 15th (Table 4). Then, they are accepted into a transitional housing program on January 16th. They remain in that program throughout March – an interaction that lasts over two months. Because they have spent at least one night in January homeless, all of January is categorized as 'homeless'. Therefore, this transitional housing interaction is listed as occurring while the person was in the 'homeless' category, but the costs are divided by the time spent by the participant in both housing categories.

January		February	March
ES	T	T	T
	H		

Housing Categories	
	Homeless
	Transitional

ES	Emergency Shelter
T	Transitional Housing
H	Hospital Stay

Table 4 shows an example for a person experiencing a long-term interaction and a short-term interaction. Here, all three interactions are listed as occurring while the person was homeless, since at least one day in January was spent homeless. Both the interaction and the costs for the hospital stay are listed as occurring while homeless, since it is such a short interaction. However, the costs for transitional housing are split between the 'homeless' and 'transitional' housing categories, since it is such a long-lasting interaction.

However, the costs and interactions for shorter interactions are all grouped in the same housing category. If the same person had entered the hospital on January 20th and stayed until February 5th, then both that interaction and the costs associated with it would all fall under the homeless category, since it is a considerably shorter interaction. Although we believe this is largely a fair way of categorizing the information – since the homelessness may have affected the need to receive hospital services, even if the hospital services occurred while the person was in a transitional housing facility – it does create some complications. We discuss the most costly example of this on page 34.

When other cost studies use housing categories (instead of assuming 'homeless' for a period of time), they usually use two categories – 'homeless' and 'housed'. This makes sense, since most cost studies look at very large populations, where it is incredibly challenging (if not impossible) to assemble individual housing histories with detail or accuracy. However, we made the decision to keep these five different housing categories for this analysis. This is because:

1. Our sample size is small enough that we could interview every participant about their housing history to such a degree as to be able to estimate when they may have shifted housing situations across these categories. Although we are aware that there are likely flaws in this data, we believe that it is accurate enough to serve this study's exploratory and illustrative purposes;
2. We wanted to be able to explore how incarceration, transitional housing, and at risk housing affects costs and services that participants utilize, as these are housing categories that are often overlooked.

If we had used only the two categories of 'homeless' and 'housed', then we would follow HUD's definitions. The 'homeless' category would contain the current 'homeless' and 'transitional' categories. The 'housed' category would contain the 'incarcerated', 'at risk', and 'stable' categories. The brief exploratory analysis we conducted using only these two categories showed similar results; it is often cheaper to house individuals instead of letting them remain homeless.

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