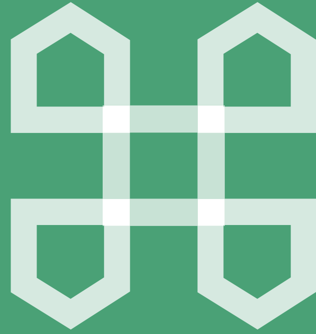

ENVISION

COMMUNITY

Healthcare Financed Housing

How healthcare can help fund communities for people experiencing homelessness

DRAFT FOR COMMUNITY REVIEW

VERSION 6.22.18

FORWARD

Hennepin County Medical Center's Upstream Health Innovations and the University of Minnesota's Minnesota Design Center are working to improve health with housing.

We have completed this initial draft of a financial model describing how the healthcare system in Minnesota could help finance housing for their patients. This model is a financial vision of the future showing how the healthcare system could support housing. This vision comes from people experiencing homelessness, health plans, healthcare providers, housing experts, and government officials who we interviewed over the last year. The assumptions and baseline data in our financial model come from experts in our community and from the relevant literature. We thank these many individuals and organizations who contributed their time and shared their experiences with our team.

We need your help!
We want your feedback to improve this financial model. Show us where it is fragile and share your suggestions on how to strengthen it. In this report, we are going to describe each component of this model and the insights that inspired it. We are hoping that you will read the entire report and send us your reactions to help make the model better. Please email your feedback to me at William.Walsh@hcmed.org. Comments are requested by September 1, 2018.

Sincerely,

William E. Walsh, MD
Deputy Chief Innovation Officer
Upstream Health Innovations

HennepinHealthcare

MINNESOTA DESIGN CENTER
COLLEGE OF DESIGN UNIVERSITY OF MINNESOTA

UPSTREAM HEALTH INNOVATIONS

IMPORTANT NOTE

This financial model only applies to the 20% of Envision Community residents who are the highest utilizers of health care.

In a community dedicated to learning, it is important to have a diverse group of people to learn from and grow with. That same diversity also signals a belief in equity and solidarity – that we each see value in each other, regardless of our past. It also shows that Envision is not a ghetto concentrating poverty or disability, but rather a thriving community that is worthy of love and an asset to the city. Integration is essential to dignified housing.

Diversity is also essential for us to successfully house the highest utilizers of health care. We need people with different types of stability and capacity to ground our community. For this reason, we need to make sure that our community has this resident ratio.

ACKNOWLEDGEMENTS

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We would like to express our appreciation to the organizations whose members participated in interviews that provided the valuable insights and feedback that created this financial model. Participating organizations included:

Minneapolis Public Housing Authority

Hennepin County
Attorney's Office
Center for Innovation and Excellence
Community Corrections and Rehabilitation
Community Offender Management
Continuum of Care
Coordinated Entry
Healthcare for the Homeless
Office to End Homelessness
Resident and Real Estate Services
Workforce Development

State Government
Minnesota Department of Human Services
Minnesota Housing

Federal Government
Housing and Urban Development

Community Partners
Aeon
Catholic Charities
CommonBond
Corporation for Supportive Housing
East Town Business Partnership
First Covenant Church
Hearth Connection
LISC Twin Cities
Project for Pride in Living
St. Stephen's Human Services
Street Voices of Change
Urban Land Institute
YMCA

Health Plans
Blue Cross Blue Shield
HealthPartners
Hennepin Health
Minnesota Council of Health Plans
Optum
UCare
United Healthcare Group

Hennepin Healthcare
Community Health
Coordinated Care Center
Crisis Residence
Emergency Department
Health Policy
Population Health
Social Work

Public Health
Minnesota Department of Health
U of M School of Public Health
U of M Humphry School of Public Affairs

We thank the organizers of courses that informed this report:
CSH and Capital Link's Capital Expansion for Health and Housing Partnerships
CSH Supportive Housing Academy
DHS Housing Program Overview

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Most importantly, we want to thank the patients of Hennepin Healthcare who participated in the interviews and gave their guidance.

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Summary

Healthcare systems see the wasteful destruction of health caused by homelessness and are looking for ways to provide housing for their patients. However, a shortage of affordable housing presents a barrier to this goal. Our collaborative seeks to improve the health of our patients experiencing homelessness by addressing this shortage and creating more housing – housing financed, in part, by the healthcare system.

Our first step in creating healthcare financed housing was to establish a budget based on what people experiencing homelessness can truly afford and what the health care system can realistically invest. Once we know what dollars are sustainably available, we can design housing to fit within that budget. This report describes a financial model for the healthcare system in Minnesota to fund housing and is summarized in the following steps:

1. Some people are really sick and thus really expensive to care for when they are homeless.
2. Housing stabilizes their health and creates an estimated $673 per month in healthcare savings for the highest utilizers of healthcare services.
3. An existing governmental housing support program provides funds for housing and supportive services.
4. But this funding does not pay for everything; there is likely a financial gap when serving the highest utilizers of health care.
5. The healthcare system could reinvest savings from step 2 to fill the financial gap.
6. Combining existing governmental support with healthcare savings tells us that healthcare financed housing needs to cost less than $1,184 per month to build and operate.
7. When we allow people to keep more of their money and only 30% of a person's income goes to rent, healthcare financed housing needs to cost less than $995 per month to build, operate, and pay off the capital loan in 5 years.

The sections of this report details each of these steps so you can understand how we arrived at our conclusions. Readers must understand that this is not an actuarially tested model or a comprehensive literature review; rather, this report is a financial vision of the future showing how the healthcare system could help fund housing and intentional communities for people experiencing homelessness.

Before diving into the financial model, section 2 introduces the real people behind the numbers. We describe our interviews with patients at Hennepin County Medical Center (HCMC) who are experiencing homelessness and how those interviews revealed opportunities to achieve healthcare savings by housing patients experiencing homelessness. The first group we will select for housing will be the sickest people who meet the definition of Long-

Term Homelessness and utilize the healthcare system frequently. We anticipate the selection process for participants will evolve over time to maximize both financial and health impacts.

Section 3 describes how we estimated the baseline healthcare cost of $2,695 per month in our financial model. **We estimate that housing will decrease healthcare costs by 25% and outline the source of this estimated decrease.** We also acknowledge that if housing successfully improves health and increases longevity, that increased life-span will eventually result in a net liability from a cost perspective. That is why we must thoughtfully measure healthcare savings achieved by housing.

We review two essential components of savings: selecting the right people for housing and lowering the cost of housing. Realizing healthcare savings depends on selecting optimal candidates: people who are sick and using healthcare services frequently. But even if we select the right people, the cost of housing can hinder savings. Since current housing is too expensive for our healthcare system – or any system – to fund, our project aims to decrease the cost of housing while maintaining the highest quality and health standards. We discuss how dramatically lower cost housing, what we call "extremely affordable housing," will change healthcare's cost offset calculation resulting in housing that pays for itself.

In addition to healthcare funding, the model utilizes a reliable source of funding from the State of Minnesota. Section 4 describes this income supplement program from the State of Minnesota formerly known as Group Residential Housing (GRH) and recently renamed "Housing Support." Housing Support supplements income for people with disabilities that prevent them from working enough to support themselves. For individuals who meet the definition of Long Term Homelessness, Housing Support also pays for supportive services. But Housing Support has one drawback: people with unearned income receiving Housing Support are allowed to keep only $99 per month for spending money while all the rest of their income goes to housing. When faced with the requirement of surrendering almost all their income to housing, some people choose to remain homeless in order to keep more spending money. There is a way to address this drawback that works even better for the person, and section 8 describes this innovative model of Housing Support. We include Housing Support in our financial model because it is the most reliable source of funding that is available to the greatest number of homeless individuals seeking care at HCMC.

Healthcare systems will need to partner with organizations skilled at providing supportive services for people to remain successfully housed. Section 5 quantifies the gap between existing funding and the amount we believe is needed to provide supportive services to the highest utilizers of health care living in Permanent Supportive Housing (PSH). To understand the gap, we asked supportive service providers whether the $483 per person per month in funding from Housing Support could cover the costs of providing their services; the answer was no, there's an estimated current gap of $150 per person per month. After applying a 3% annual increase in service costs over 5 years, the estimated gap is $229 per person per month. Filling the financial gaps in the housing system is likely the

one of the best ways the healthcare system can help providing housing for their patients experiencing homelessness. In this model, the healthcare system first fills the service gap in year 5 by contributing $229 of the $673 monthly healthcare savings to the service shortfall. This leaves $444 remaining for the healthcare system to invest each month in housing capital repayment and operations.

In section 6 we explore the question of who specifically in the healthcare system should invest in housing by making the case that those who bear the financial risk for a population's health outcome are the entities that should make this investment in exchange for reducing that risk. Today, health plans predominately bear that risk. But in the future as financial risk is shared, healthcare providers should also cover some – or even all of this investment. In section 6, we also explain why the model reinvests all expected healthcare savings created by housing. So improved are the health outcomes from stable housing that a positive return on investment is not required; this investment needs only cost-neutrality. Lastly, in section 6, we describe how the problem of short-term health plan membership is a barrier for health plans to investing in housing and discuss strategies to overcome this barrier like pooled funding.

Using our existing resources, we estimate that healthcare financed housing in Minnesota needs to cost less than $1,184 per month in today's dollars to build, operate, and pay off the capital loan in 5 years. This post reviews the assumptions used to complete that calculation. We also discuss why we specified that the budget be sustainable for 5 years and how the requirement of paying off the capital loan in 5 years could create financial equity for people experiencing homelessness.

Early in the report, we discuss the one drawback of Minnesota's current Housing Support program: people with unearned income are allowed to keep only $99 per month – less than $3.30 per day – to spend on their personal needs. **Section 8 describes an alternative Housing Support payment model where people get to keep more of their money, spending only 30% of their income on housing costs. Using this payment model, we need to keep our costs for building, operating, and paying off the 5-year mortgage for healthcare financed housing to less than $995 per month. We are committed to designing healthcare financed housing at this $995 price point because this alternative Housing Support payment model encourages people to remain in housing by leaving more money in their pockets.**

In the final section, we ask for your feedback to make this financial model stronger. We describe a common reaction to our findings that perpetuates inequity. We need to think differently about housing and design housing that people can truly afford with the means they reliably have available to them. That is why we are committed to creating a community that costs less than $995 per person per month to build and operate. We introduce areas where this financial model could evolve in the future and describe our next steps towards making healthcare financed housing a reality. Finally, we conclude by reflecting on how this model creates the financial conditions necessary to cultivate health equity.

Section 1

Introduction

Why does the healthcare system need to get involved in housing?

Healthcare needs to participate in the housing system because stable housing is essential for health. Healthcare systems, like Hennepin Healthcare, see this wasteful destruction of health every day. Homelessness puts patients at greater risk for many acute and chronic diseases and makes it very difficult for patients to manage these conditions once they surface.[1] Because self-care and self-management is challenging while living on the streets, patients experiencing homelessness often seek help from our Emergency Department (ED) and frequently need hospitalization to stabilize their health that has spiraled out of control. Living in a safe home is the first step towards restoring health and preventing health crises.

Healthcare pay for housing?

If housing is so essential to health, why doesn't the healthcare system help provide housing like any other essential treatment? At first, this idea seems nonsensical. The healthcare system is extremely money-constrained. As frontline healthcare workers, we know firsthand that there's already not enough resources to take care of existing needs. How are we also going to pay for housing? But as a homeless person's health spirals out of control, so do the healthcare costs. Once we consider how a stable home could prevent these tragic and expensive health interventions, the healthcare dollars spent pulling homeless patients out of healthcare crises seems wasteful. Wouldn't we rather prevent this destruction of health by redirecting our spending towards a stable home?

A housing shortage is the problem

Housing may be essential for health, however, many people experiencing homelessness can't get permanent housing because there is a severe shortage of affordable options. This key component of health is missing for many of our patients. If we want to improve the health of people experiencing homelessness, the best thing we can do as a healthcare system is help eliminate the housing shortage.

The cost of housing contributes to the shortage

The obvious answer is for the healthcare system to help fund the creation of more housing. We quickly learned that both existing housing and new construction are too expensive for the healthcare system – or any system – to afford and scale to meet the need. The average cost to build an "affordable" studio apartment unit is over $250,000.[2] This high cost is driven by socially imposed standards which require minimum square footages, individual amenities, expensive infrastructure, and significant fees that price the poorest people out of the market.[3] The high cost of housing also prices the healthcare system out of the market.

The need for extreme affordability

Since housing is too expensive for our healthcare system to sustainably afford, the healthcare system must do something different to radically drop the cost of housing. The healthcare system needs new strategies and building practices that will fit within our budget. We need something beyond what we currently consider "affordable"– we need "extremely affordable" housing.

Extreme affordability can be achieved through many strategies including: a smaller footprint, shared resources, energy efficiency, new building practices, and innovative methods of property management. We intend to use extremely affordable strategies to stay within the limited budget of the healthcare system.

This leads to the question: what can the healthcare system afford to invest in housing? This report details our answer to this question and begins our path to create healthcare financed housing.

What we intend to create

Before we dive into the financial details, let's describe the housing we intend to create and who we want to house. This housing is for people experiencing homelessness who are cycling in and out of healthcare crises or at risk of starting the cycle. We want the housing to be permanent so people can stay as long as they want. We intend to provide not only the physical structure of housing, but also the supportive services a person needs to thrive. This housing with supportive services is commonly known as Permanent Supportive Housing (PSH).

Community is essential for healing

Housing alone is not enough to heal from homelessness, and even supportive housing is not enough. We believe homelessness is cured within communities. That is why we intend to create communities that promote economic, social, physical, and spiritual healing. We believe community is necessary for all of us to achieve our greatest human potential. So essential is community that we have named this project "Envision Community" to remind us that we not only need to envision a future where all people are housed, but we also need to envision communities where healing from homelessness truly occurs.

"If you don't have people helping you change your ways, you'll just keep bringing the street home with you."

- Alicia, housing unstable

Our path to making Envision Community a reality

This project approaches the question of how the healthcare system can invest in community-centered housing for the homeless by first determining a budget based on what people experiencing homelessness can truly afford and what the health care system can realistically invest, committing to spend not a penny more, and then designing communities that fit within this sustainable budget. We know there will not be enough money to pay for everything that is wanted. Who should choose how to spend our limited budget? We believe people experiencing homelessness and the communities that will welcome these new neighbors should choose since they will be living there. That is why our next step is to facilitate co-creation sessions, where future residents and surrounding communities design where they will live. We then plan to honor their priorities by building what they design, giving it a try on a small scale, and learning from the residents how to make it better. Once we have demonstrated real-world success, we will use the ideas that work to scale these communities to meet the need.

How to look at this work

This effort is not an actuarial tested model, nor is it an in-depth analysis of the literature about healthcare savings from housing. **Instead, this**

report is a distillation of many conversations and data from the literature assembled into a vision of the future showing what might be possible for our community. We know our estimates and assumptions will change as we learn more. Determining precise numbers is not our goal at this stage of the project because we believe any model or estimate must be tested in the real world. Piloting is not an estimate. Piloting instead gives us real-world accurate information. Even though this financial model only roughly estimates our budget, it allows us to design communities with people experiencing homelessness within those financial constraints. This financial estimate along with new designs using extremely affordable strategies then allows us to pilot community-centered housing and obtain the accurate information we all need to make judgements about the potential of community-centered housing to successfully heal homelessness.

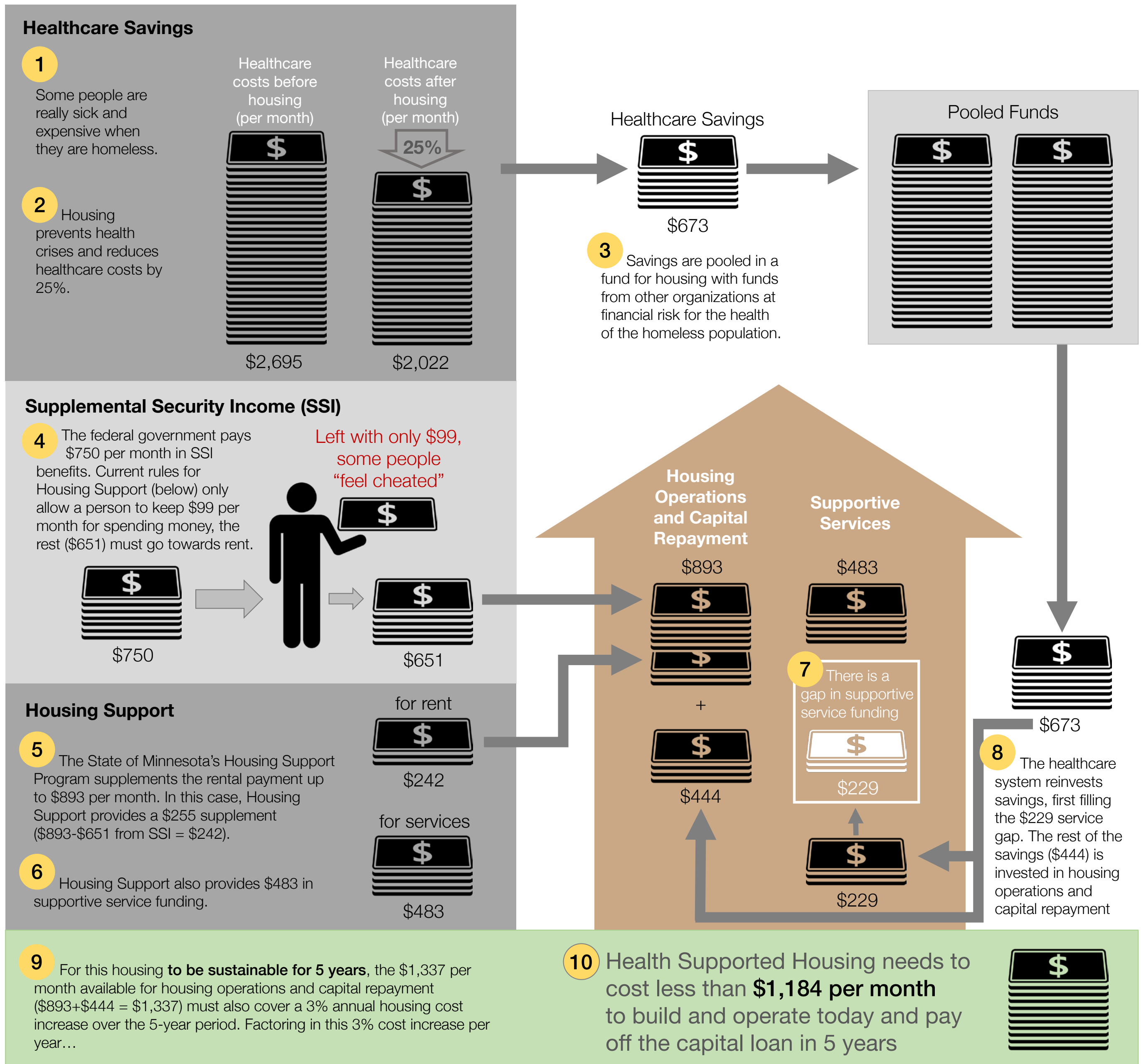
The Financial Model in a Nutshell

Our model is summarized in the seven steps below and illustrated in the infographic

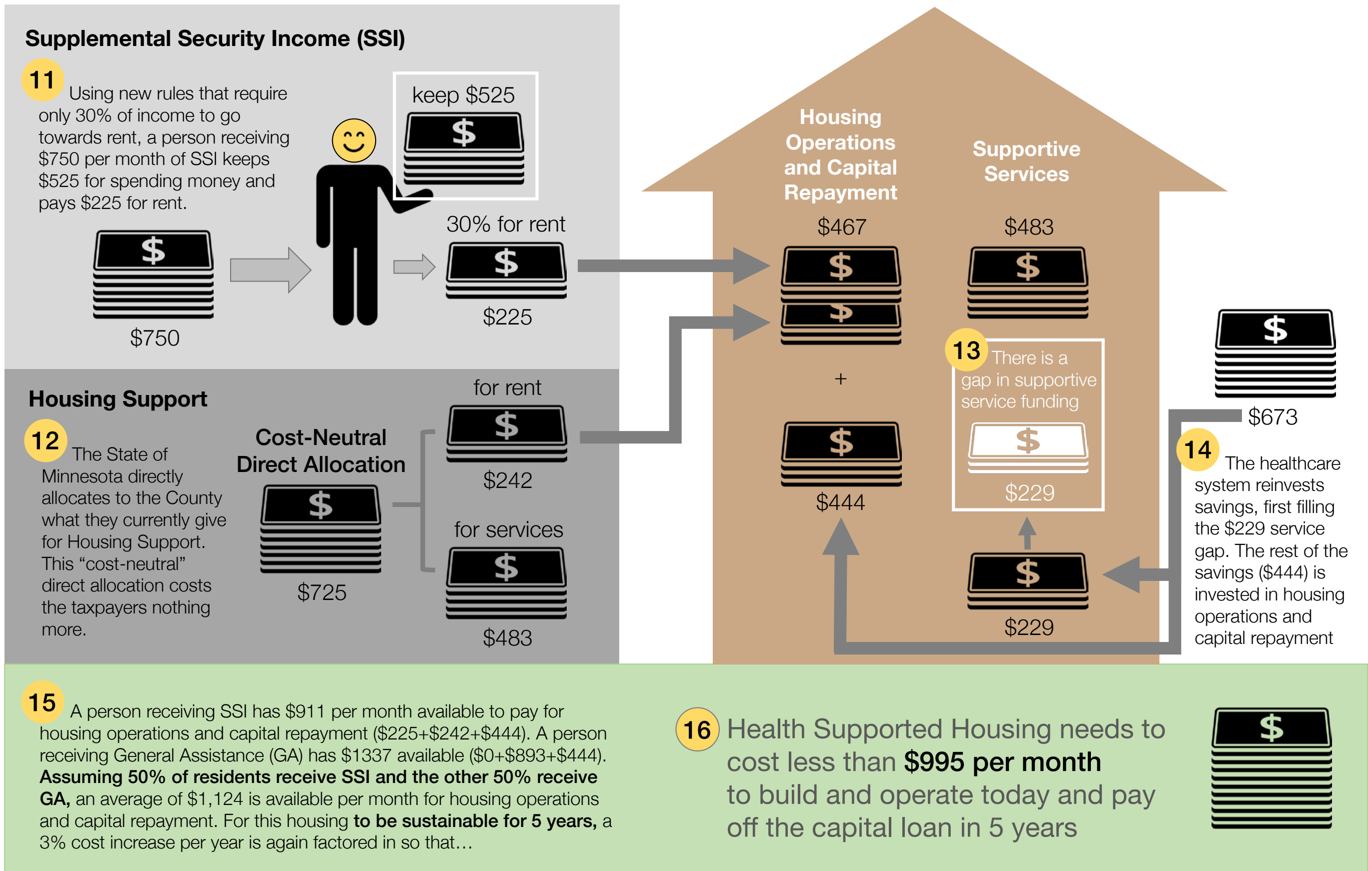
1. Some people are really sick and thus really expensive to care for when they are homeless.
2. Housing stabilizes their health and creates healthcare savings.
3. Existing governmental housing support provides funds for housing and supportive services.
4. But this funding does not pay for everything; there is likely a financial gap when serving the highest utilizers of health care.
5. The healthcare system could reinvest savings from step 2 to fill the financial gap.
6. Combining existing governmental support with healthcare savings tells us that healthcare financed housing needs to cost less than $1,184 per month to build and operate.
7. When we allow people to keep more of their money and only 30 percent of a person's income goes to rent, healthcare financed housing needs to cost less than $995 per month to build and operate.

Next, we will begin the deep dive into this model with an examination of the funding mechanism that is at its heart: the idea that healthcare savings can be used to help build housing.

A financial vision of the future using the current Housing Support program



Allowing people to keep more of their money each month by limiting rent payments to 30% of their income



Section 2

The People Behind the Numbers

An opportunity to fund housing through improved health

Financial numbers represent real people

Before diving into the numbers and going through the details of our financial model, we thought it was necessary to meet the people behind the numbers. We can understand, in theory, how people experiencing homelessness are often extremely sick and very expensive for the healthcare system but we wanted to move away from theory to learn from people in the real world; we wanted to talk with people experiencing homelessness to find out their perspective on how they use our healthcare system. To avoid making assumptions about what people experiencing homelessness want and need, we spent time with 'potential residents' to find out their perspectives. This section describes these conversations with patients at Hennepin County Medical Center (HCMC) experiencing homelessness. We learned that opportunities to achieve healthcare savings by housing our homeless patients really exist at HCMC. The key to achieving savings is selecting the right people that will create those savings. We introduce an evolving housing selection process to maximize financial and health impact.

Does healthcare have extra money to pay for housing?

In the introduction, we described how the idea of the healthcare system paying for housing initially seems nonsensical because the system is extremely money-constrained. How can healthcare pay for one more thing like housing when its budgets are already stretched to the limit by existing services? But the truth is that the healthcare system is already paying to house the homeless in settings like the ED, hospital, and intensive care unit where the bill is far more expensive than a luxury hotel because of high-tech amenities like ventilators, surgeries, and CT scans, and the 24/7 personal service provided by one of the most educated and highest-paid workforces in our economy. Rather than intermittently housing the homeless in the financial equivalent of a luxury hotel for only a few days a year, the healthcare system can address homelessness and prevent health crises by taking the money we are already spending and redirecting it towards year-round stable, affordable, and dignified communities.

Paying for housing with healthcare savings

The healthcare system can redirect spending by investing healthcare savings into housing. Healthcare savings is only possible because some people are really sick and thus really expensive to care for when they are homeless. It is this high expense that creates our opportunity to lower healthcare costs, realize savings, and then invest those savings into housing. Many studies have shown that housing reduces healthcare costs by reducing utilization of services.[4] So important is this potential for savings that we did not want to rely only on the literature. We wanted to see it for ourselves.

We asked front-line staff of our healthcare system: if you had housing to offer patients, who would you house? Then we met with 7 of the patients our staff recommended. In exchange for Target gift cards, these patients helped us better understand their financial life and healthcare utilization. We learned about their sources of money, how they spent those funds, how often they used our healthcare system, and what they thought about their care. Finally, we explored their ideas of housing and what they would be willing to pay for it. Here is one person's story.

The cycle of health crises

The other patients we interviewed had similar stories of unstable housing, repeated ED use, and frequent hospitalizations. By reviewing HCMC's medical record, we learned that the seven people we interviewed collectively visited HCMC's ED 165 times in the last year and required admission 28 times during the same period, averaging 24 ED visits and 4 hospitalizations per person. One woman visited HCMC's ED 58 times in the last 12 months! Our front-line hospital staff tell us there are

Dan's story

Dan has been living on the streets for many years. Not shelter, but on the streets with absolutely no stable shelter at all. Dan lives year-round in Minnesota where the average high temperature in January is in the mid-20s, demonstrating his extreme resourcefulness! Dan is middle age and his struggles with addiction have contributed to the loss of his job and isolation from his family.

He receives his healthcare from HCMC's Coordinated Care Center (CCC), a clinic with compassionate staff specializing in the care of HCMC's most vulnerable patients. When asked, "How many times do you come to the Emergency Department (ED) or hospital in the last year," Dan casually replied that he is at HCMC's ED a couple times a week.

Dan's answer was so matter-of-fact, so casual, like visiting an ED is a normal part of his week in the same way someone else might visit a coffee shop, we had a hard time believing him. Who really needs to come to an ED a couple of times a week?

As Dan shared his life's story and health issues, the traumas he's experienced, his struggles with addiction, and his survival on the streets, we got a glimpse of the great burden he was carrying and began to understand how the CCC and the ED helped Dan off-load his troubles even for a brief time. After hearing his story in detail, Dan's regular visits to the ED were not just believable but understandable.

Over the next two days we returned to interview other patients in the ED and Dan was there both days, brought in for intoxication, just as he told us he would be.

many people like Dan, caught in this cycle of homelessness and health crises. They experience it week after week after week, going from the ED to the hospital to the street… ED – hospital – street…. Dan and others we talked to thought housing would break that cycle and improve their lives but there is no affordable housing available or the places that are available required changes they wouldn't – or couldn't – make.

Breaking the cycle creates savings

Although not a scientific study or an extensive review of financial data, our conversations with HCMC patients validate our belief that breaking the cycle of health crises caused by homelessness represents real savings for the healthcare system through decreased ED and hospital use. This savings is not theoretical, we have seen the opportunity first-hand: if a person goes from 58 ED visits to 30 in a year, that is real savings. If another goes from 8 hospital admissions to 4, that creates tremendous savings – savings we can reinvest in housing.

Selecting people for housing

We have seen for ourselves this opportunity to use savings to pay for housing, but the ability to realize those savings depends on who we select for housing. The first group we will select for housing will be people who meet the definition of Long-Term Homelessness (LTH) and utilize the healthcare system frequently. These are people our industry calls "super-utilizers." We intend to start with this population because those who meet the LTH definition are also more likely to qualify for existing governmental supportive service funding. We also intend to start with the sickest, highest-utilizing patients from the LTH population because this group likely represents the greatest opportunity for healthcare savings[4] which can be redirected to pay for housing.

As we gain real-world experience implementing this idea, we expect our selection will become more sophisticated. If the idea outlined above can be referred to as "Selection Criteria 1.0" then perhaps version 2.0 will include not just an estimation of possible savings and health impact but also predict those people who are homeless and stable today but are at risk of an adverse health event in the near future. Think of these people as having a "rising-risk" for a health crisis. Selection Criteria 2.0 will predict rising risk.

This opportunity is real

We have seen for ourselves the opportunity to improve health and create healthcare savings that could then pay for housing. We have seen the different ways we could spend healthcare money. Wouldn't you rather spend our healthcare funds on stable housing than a hospitalization for frostbite and limb amputation? Next, we will move from people to hard numbers, estimating the savings we could obtain and learning how much funding the healthcare system could realistically spend on housing for patients experiencing homelessness.

Estimating Healthcare Savings Created by Housing

The saving calculation and strategies to achieve those savings

Estimating the cost of homelessness

The "cost" of any person's homelessness cannot be easily or accurately reduced to a single number and we will continue to resist the idea that human suffering and degraded quality of life should be calculated on a financial basis. But if we intend to pay for housing using healthcare savings, we need to estimate the expected savings. That estimation begins with knowing the average cost of healthcare before a person is housed.

The cost of healthcare before housing

There are studies that thoughtfully look at the financial costs of providing healthcare to people experiencing homelessness.[5-7] One study, from the Massachusetts Housing and Shelter Alliance, estimated the healthcare costs for someone experiencing homelessness to be $2,695 per month.[8] We used this number because it is derived from recent data across a relatively large population. Most importantly, we used this study because it had the lowest cost of healthcare before housing that we found.

Why use the lowest reported cost rather than one which might estimate more money to pay for housing? Our purpose here is not to conduct a formal financial analysis. Rather, our goal at this stage of the project is to create financial constraints to inform the housing designs that will be developed in future phases of the project. Thus, as we've done here, we have deliberately chosen conservative numbers to aggressively constrain our housing designers to create housing that is truly affordable for people experiencing homelessness and for our healthcare system. Our goal is to create designs that work even under the most stringent conditions.

25% Savings

At the heart of our proposal is the idea that affordable housing for a segment of the homeless population will generate enough healthcare savings to fund the creation and operations of that housing. In this model, we estimated that savings to be 25%. Using an estimated cost of healthcare before housing of $2,695 per month, a 25% reduction in healthcare costs results in $673 per month of expected savings. Later you will see the healthcare system invest that $673 of savings into housing and supportive services.

Where did the 25% estimated savings come from?

What makes us think it is a reasonable estimate? As we have done in many aspects of this project, we looked at existing research to see if there were relevant data. In this case, we looked for information from Randomized Controlled Trials (RCT) as we believed this type of study offered the highest quality information. Ly and Latimer7 identified four such RCT studies[9-12] investigating the cost offset created by housing in their comprehensive 2015 review published in the Canadian Journal of Psychiatry. We then carefully looked at each of those four studies to learn if we should use their information in our financial model. Although each of the studies were extremely valuable, the study conducted by Basu, Kee, Buchanan and Sadowski,[9] contained the most relevant information because the study population closely matched the people we hope to serve at HCMC. The other three RCT studies[10-12] were excluded from use in our

model for a variety of reasons, including our inability to obtain underlying data, concerns about differences in markets, and population comparisons.

A key advantage of the Basu study[9] is that it reports cost data about the chronically homeless subpopulation. This subpopulation analysis is vital for our model because the Long-Term Homeless definition is one of our eligibility criteria for participating in our pilot program. Calculations from the Basu study of this subpopulation showed that housing created a 29.5% decrease in healthcare costs among the chronically homeless. Once again, in an effort to create the most conservative estimate, we rounded that savings down to 25%.

What about regression to the mean?

Every health plan leader and many of the housing stakeholders we talked with have raised this question. "Regression to the mean" is a tendency for homeless study participants to enter housing at a time when their healthcare costs are higher than normal and that those high costs would tend to regress over time towards a less-expensive mean whether they entered housing or not. This real phenomenon asks a tough question: is it the housing that created the cost savings or did the savings come from costs regressing to the mean? An additional reason to base our percentage decrease on the Basu study is that the RCT design used in the study should decrease our concern for regression to the mean. Basu and colleagues compared people who entered housing to people who did not. When randomized, both groups should have regressed to the mean about equally and regression to the mean should not influence the mean difference between the two groups.

Who believes that 25% savings is real?

At this point, no one. This is a rough estimate suitable only for this project's "proof of concept" stage. No health plan executive, no healthcare provider would – or should – accept this number as definitive. That's not the goal. This estimate is a starting point, based on the best information we have available, that allows us to design housing with aggressive financial constraints – designs that we hope to build and test in a pilot. Piloting will give us the accurate information we need to make informed decisions; at that point, we'll have real-world data that will show healthcare savings that all participants can believe.

A nasty view of success

Our goal – to dramatically improve the health of homeless individuals by helping them obtain affordable permanent housing – is unquestionably worth doing. But what happens if we succeed? A successful scenario reveals a hard truth of health care economics: in the long run, death can be cheaper for the system. Aaron Walton, writing in the New Yorker,[13] eloquently explained the dilemma:

> "If an intervention reduces a patient's frequency of hospitalization from ten admissions annually to five, but simultaneously increases that patient's survival from one year to two, the intervention is fully justified medically but is a wash from a cost perspective. If it increases that patient's survival to two years and one month, it's a net liability."

We reject the "death is cheaper" calculation. A society that makes public policy decisions based on valuing human lives solely on the basis of economic profit and loss is not our cultural history and it cannot be our future. Nor should the success of this project be measured in a way that views improved health and longevity as a financial failure. While the nasty "death is cheaper" calculation makes healthcare savings impossible, the next section shows how healthcare savings – implemented using two strategies – are almost guaranteed.

Strategies to achieve savings

Healthcare cost savings strongly depend on two factors: selecting the right candidates for the program and dramatically lowering the cost of housing. Our previous section discussed selecting optimal candidates who will create healthcare savings, but the literature seems pretty clear: with the right candidates for housing, healthcare savings can be achieved.[4]

Decreasing the cost of housing is the other untapped opportunity to realize savings. This is more than just an issue for the homeless; for many Americans there's a housing shortage because the current stock of housing is simply too expensive. A new paradigm for permanent, sustainable housing could address a range of societal issues.

This belief is an explicit part of our project; we aren't trying to utilize housing in its existing form, we're looking to come up with new methods of building, maintaining, and operating housing that will allow people to live within the means they have available to them while maintaining healthy living standards. This sets us apart from prior efforts; we are proposing housing that is dramatically less expensive – "extremely affordable housing" is the term we're using for now – that creates significant cost savings for the healthcare system and society. We also believe that community, in addition to housing is essential for health and remaining successfully housed. That is why our financial model must not only pay for housing, but also support the cultivation of community.

Where do we go from here?

Healthcare is not going to pay for housing alone. Healthcare financed housing needs another source of income that can form the base funding for this model. The next section describes a reliable base source of funding for housing provided by the State of Minnesota.

"It can take many years just to get funding in order for an affordable housing development. Securing funding for such a big investment is an incredible task."

–Justin Eilers, Senior Project Manager, CommonBond Communities

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Calculating the State's Support for Housing and Supportive Services

A reliable source of funding from the State of Minnesota currently exists

Housing Support 101

For years Minnesota's Housing Support program was called "Group Residential Housing" or GRH, but recently it was renamed to "Housing Support." It is funded by the State of Minnesota and administered by counties and tribes across the state. Housing Support supplements the income of a person with a disability that prevents them from working enough to support themselves so that they can pay for housing. This allows people to afford rent, utilities, food, and household supplies that would not be available through their unsupplemented income alone.

The Housing Support income supplement brings the housing payment up to $893 per month. To understand how the numbers work, consider the following examples: Tim rents an apartment and receives $750 per month from the Federal Government's Supplemental Security Income (SSI) program; for reasons we'll go into in a minute, Tim has to contribute $651 per month from his SSI check towards his housing. That doesn't cover all of his expenses. Since Tim is eligible for Housing Support, the State of Minnesota will pay an additional $242 toward his housing expenses like rent, utilities, household supplies, and food. Thus, Tim has a total of $893 per month available for housing expenses ($651 + $242 = $893).

Trina lives in a group home and receives $99 per month from the State of Minnesota's General Assistance (GA) Program; she pays $0 a month for her housing and the administrator of her home receives $893 monthly from the Housing Support program so that Trina has $893 per month for housing ($0 + $893 = $893). In both examples, Housing Support supplemented the individual's income so that each person has $893 per month available for rent, utilities, food, and household supplies.

Who wouldn't want extra dollars to pay for housing?

Why would someone choose to turn down this support and remain homeless? From talking with people experiencing homelessness, we have learned that this program can feel like a loss of income rather than a boost.Why? For people without earned income, Housing Support requires all income, except $99 per month, be paid to the housing provider. Remember Tim's SSI check of $750 per month in the example above? To receive Housing Support, Tim can keep only $99 from each check and has to give up $651 per month – 87% of his income – to his housing provider. From Tim's perspective, Housing Support is a mixed deal. He never sees the $242 from the State of Minnesota; that money goes to his housing provider. All he feels is the loss of $651 and the daunting prospect of managing the rest of his month on less the $3.30 per day.

Tim and people in his situation are not the only ones who understand the dilemma: One property manager we interviewed, when asked about the financial restrictions of the Housing Support program, put it succinctly: "Do they feel they are getting a good deal? No, they feel they are getting cheated."

To be fair, Housing Support funds pay for what a person would otherwise have to pay on their own. It's not just for rent – it's for other expenses too like utilities, food, and household supplies.

A person who has to contribute a large portion of their income would likely have similar or even higher costs when not using Housing Support to pay for housing expenses. We have also learned that housing support is not for everyone, but it can work well if a person understands what the funds are paying for.

That being said, everyone we talked to who served the homeless knew about this perceived loss of income and had stories about people leaving stable housing because those people felt they could live a better life on the street with more spending money in their pocket. We wondered how people experiencing homelessness saw this issue.

What our experts said about the $99 deal

We interviewed seven people at HCMC experiencing homelessness. We asked, "where do you get your money?" "What do you spend your money on?" "Would you take housing if you had to surrender almost all of your money to housing, keeping only $99 to spend for the month?" Surprisingly, six out of seven participants said they would take the Housing Support deal, paying all except $99 per month of their income towards housing. One participant said, "I would do it for $99, I would even take that housing for $50." With further inquiry, though, some significant caveats emerged. Some of those we talked to wanted the ability to drink in their rooms. One wanted her own kitchen so she could cook for herself. Another wanted to be able to host overnight guests. A majority wanted to be able to work without losing their funding, revealing a common myth about Housing Support – the myth that you will lose your funding if you work. The reality is that Housing Support allows people to work and keep more than half of their earned income while receiving the supplement.

Saying you will take the $99 deal and actually doing it are, of course, two different things. However, we found it noteworthy that the idea of paying even a very high percentage of their income toward housing was not an immediate deal breaker for people experiencing homelessness. In return, however, they want housing that truly meets their individual needs.

Reliable funding

Why base our financial model on a program with this potential drawback? Because Housing Support funding is reliable. At the beginning of this project, we set out to find the most reliable source of funding that is available to the greatest number of homeless patients who seek care at Hennepin County Medical Center (HCMC). Housing Support meets both of those standards. While federal support for housing is uncertain, Housing Support from the State of Minnesota is much more reliable. It has no cap and has not been targeted for cuts in previous state budgeting cycles. It is a forecasted program, meaning that the state looks at past spending, creates a forecast for spending next year, and adjusts the budget based on that forecasted trend. No budget debate. No cuts. No cap. Just forecasted adjustments in spending.

From a healthcare institution's standpoint, this is an incredible source of housing funds because funding is available for every eligible person. As long as the person, housing provider, and place meet the eligibility requirements, Housing Support is available. Other sources of funding give more money, but no other sources are as reliable. Because of this reliability, we included Housing Support in our financial model. **Similar to other components of this model, we have deliberately chosen a reliable – but lower dollar – funding source compared to other funding possibilities to aggressively constrain our housing designers to create housing that is truly affordable for people experiencing homelessness and for our healthcare system.** When our housing becomes a reality, we will certainly welcome other funding sources,

especially sources that will provide more money for our residents.

Additional funding: Housing Support also pays for supportive services

Housing Support also has the added benefit of paying $483 per month in supportive services for people in some settings, and for people who qualify as Long Term Homeless (LTH). Since our project primarily serves the LTH population, this service funding is included in our financial model.

To obtain this supportive service funding, people also need to be referred from the Coordinated Entry System. To be referred from the Hennepin County Coordinated Entry System, people who are literally homeless undergo assessment, qualify for permanent supportive housing, and then be at the top of the priority list. The priority list is filtered by program eligibility requirements, and in the case of healthcare financed housing, we intend to filter by expected healthcare savings – a necessary component of our financial model.

Another option for a great program

Minnesota Department of Human Services (DHS) has another model of Housing Support that eliminates its drawbacks, allowing recipients to pay a smaller percentage of their income towards rent. If the surrender of 87% of income keeps people out of housing, our state has this option to remove that barrier. Section 8 will explain this innovative financial arrangement.

> "If we are using these funds to stabilize housing and improve health, it is a good story. We would be thrilled to house more people."
>
> **– Kristine Davis. Senior Agency Policy Specialist, Housing Support, Minnesota Department of Human Services**

Section 5

Housing Support Cannot Pay for Everything Resulting in a Financial Gap

Estimating the gap in funding for housing and supportive services

The Muddy Waters

Of all the topics we explored, understanding how the funding of supportive services works was the most difficult. Without the assistance of the Minnesota Department of Human Services (DHS), which hosted an outstanding seminar on the topic, we would still be lost in the intricacies.[14]

In the simplest terms, supportive services for people in permanent supportive housing are funded by a wide range of programs, programs that require applications, compliance, reporting, and other duties that the funding necessitates. Thus, service providers are not just experts at providing supportive services, they are also highly skilled at obtaining and maintaining funding for those supportive services. Health systems will need to partner with organizations skilled at both providing services and obtaining funding to ensure their patients have the supports they need.

Can you cover your costs?

To create a viable financial model for permanent supportive housing, there is one important question about the supportive services component: **would the $483 per month from Housing Support cover the costs of providing those services for the highest utilizers of health care? The answer was NO. There is a gap.**

How did we get our gap numbers?

To assess the size of the gap, we turned to the experts who provide supportive services. Project for Pride in Living (PPL), a local supportive service provider, graciously helped us with the estimate of the cost of supportive services and thus the gap in funding. They first suggested potential supportive services shown in Appendix A. We learned that Housing Support service funding ($483 per month) is a good source of funding for people who have experienced long-term homelessness but it does not cover all the costs. The PPL team estimated a $150 monthly shortfall in service funding yielding a total cost for supportive services of $633 per month in today's dollars ($483 + $150 = $633). Applying a 3% annual increase in service costs over 5 years, it's reasonable to expect an estimated monthly service cost of $712 at the end of the 5-year period. Assuming current Housing Support service funding ($483 per month) will be flat over 5 years, we can expect that the monthly service gap funding to grow to $229 per month by the fifth year of this model ($712 – $483 = $229). It's also important to know that the gap will continue to increase over time if Housing Support funding remains flat.

Validating our estimate

We then validated these numbers using HCMC's newest resource for the homeless: Crisis Residence. Crisis Residence provides short-term housing and services for people who need further assistance after mental health care at HCMC before returning to their home. This is a high need population undergoing intensive services who share many characteristics with the target population for healthcare financed housing. The financial model for Crisis Residence is similar to this model. We compared this model to the financial model for Crisis Residence and confirmed that our estimates for supportive service funding matched Crisis Residence projections.

Healthcare fills the service gap first

Filling the financial gap is one way the healthcare system can contribute to providing housing. In this model, the healthcare system first fills the service gap in year 5 by contributing $229 of the $673 monthly healthcare savings to the service shortfall. This leaves $444 remaining for the healthcare system to invest each month in housing capital repayment and operations at year 5 ($673 – $229 = $444). This section estimated how much money is needed to fill the gap. The next section explores how the healthcare system can fill these gaps.

"I think support services would be great. A nurse to be there to help me with my COPD... I also need a nice little case manager to discuss my issues, to take care of my business such as going to the Social Security board, arranging transportation for doctor's appointments, and someone to talk to. Having someone to talk to is important because sometimes I get depressed."

–Ron, Housing unstable

Section 6

Healthcare Reinvests Savings to Fill the Financial Gaps

Potential ways to structure this investment

Who should make the investment in housing?

In our model for creating healthcare financed housing, the "healthcare system" refers to both healthcare providers and health insurance plans. We have previously suggested that it's the healthcare system that should be the source of the additional funding to make the model work. But who specifically should make this investment in housing?

We believe the answer should be based on an assessment of who is at risk, specifically who is at financial risk. In other words, who experiences financial loss for negative health outcomes among the target population; in this case, the chronically homeless? We ask the group at risk to invest because where there is financial risk there is also opportunity, specifically the opportunity to reduce that risk, to reduce costs, and to improve the organization's return on investment or ROI.

In the current healthcare economy, it is health plans that contract with Medicare or Medicaid that bear the financial risk for their members' health outcomes. But, as new payment models take hold that share the financial risk with others such as healthcare providers, healthcare providers – and others – may also make this investment in housing.

Let's look at an example: In the current healthcare payment model known as fee-for-service, if the costs of healthcare are greater than expected, then it is the health insurance plan that pays those unexpected additional costs. The more healthcare services a patient needs, the more the plan provider pays. Patients with chronic or recurring conditions – or who live in circumstances, such as persistent homelessness – tend to require more healthcare services, and thus, cost the plan providers more money.

Using a different payment model that shares the financial risk between a health insurance plan and a healthcare provider, such as a hospital system, aligns the financial interests of the both payers and providers. Both parties share the risk, but they also share in the benefits of any cost savings or reduction in the need for services. Thus, in this risk sharing example, it seems fair that that both the health plan and the provider should contribute to the investment in sustainable permanent supportive housing since they will be sharing the reward.

How much savings can they reinvest?

We spoke with leaders from every Medicaid plan in Hennepin County about the concept of improving health and reducing healthcare costs through the provision of permanent supportive housing, and about the concept of contributing some of those cost savings to pay for the provision of such housing. We showed them our financial model and asked, "How much of a ROI would be needed to make this reinvestment in housing?" Our assumption going into those conversations was that the plans would need some ROI; we were surprised when most health plan leaders told us they would need no ROI – just a solution that was cost-neutral. What health plan leaders really wanted was to dramatically improve health outcomes for their members.

To be clear, these health plan leaders care deeply about their finances and about their stewardship of those finances, but we are impressed by the leaders' passion to put the health of their members first. We were delighted that they saw the potential for housing to dramatically improve health outcomes for their members, so much so that they were open to the notion of reinvesting all of their projected healthcare savings from housing in housing development, operations, and services.

The problem of short-term membership

Before we get too excited by this response, we need to touch on the issue of short-term membership; specifically, the fact that Medicaid members often remains on a single health plan for less than a year. Members change plans for many reasons and it is not clear why some members leave plans so quickly. Some experts we consulted thought members switched between health plans, while others thought the most significant factor was that members were losing health insurance coverage completely. These experts pointed out that such members usually returned to the same plan if they were able to regain their coverage.

Regardless of the reason, the phenomenon of short-term members poses a significant challenge to our financial model. If a housing recipient were to lose their coverage, the subsidy provided by his or her health plan – the funding mechanism we're counting on to close the "gap" in the cost of housing – goes away too. Under this scenario, housing recipients might not just lose their health insurance, they could also lose their home.

No health plan would expose their members to such a risky arrangement, one that carries with it a significant possibility of failure and eviction. Also, from a financial stewardship perspective, the phenomenon of short-term membership would make it hard for any single health plan to invest in our housing model; if a housing recipient were to leave their plan or Medicaid did not review the contract with the health plan, the health plan that made the housing investment would not capture the benefit either in terms of ROI or improved health outcomes. This challenge of short-term membership needs to be addressed.

Everyone in the pool?

Several health plans suggested creating a funding "pool" to administer the housing reinvestment funds. They consider it a particularly useful tool to help their members experiencing chronic homelessness. They emphasized, however, that the pool should be fair for each of the plans. Building on this suggestion, the University of Minnesota's Masters of Health Administration (MHA) Program Advanced Problem-Solving course is exploring potential collaborative arrangements between the health plans over the next semester. The class will be working with health plans and government agencies to learn what collaborative arrangements could work for our community. We intend to use this research to further study the challenge of short-term membership and to test multiple reinvestment pool designs in our housing pilot. Because pooled funds appear to be an important component, we included it in our model.

Section 7

Making the Rent – Our Monthly Housing Budget

What can we spend to build and operate healthcare financed housing using current programs

We arrived at our goal!

In developing our model for healthcare financed housing, our ultimate goal is to credibly estimate the cost to build and operate such housing using the funds available to a person experiencing homelessness who seeks care at HCMC. Using the calculations outlined in the previous posts, we estimate that healthcare financed housing needs to cost less than $1,184 per month to build and operate in today's dollars and repay the capital loan at the end of 5 years. Based on those calculations, meeting that budget target should allow us to provide housing to almost every chronically homeless person in Minnesota who is cycling in and out of severe health crises.

Sustainable over 5 years

This model is designed to be sustainable for 5 years. We hesitate to calculate much further out because we know this model has uncertainties and those uncertainties will multiply the further out we go. The best way to improve the accuracy of our budget is to pilot these concepts and learn from real-world experience. At this point, we have all the information we need to take this next step: we need to design, build, and operate housing for less than $1,184 per month.

Going further out than 5 years also seems unrealistic for the healthcare system. A standard mortgage is 30 years, but asking the healthcare system to make a 30-year investment in housing seems daunting. Can any healthcare leader imagine the financial situation in 30 years? Here too, a 5-year investment seems more realistic. That is why our model seeks to pay off the capital loan in 5 years.

How we calculated the $1,184 number
Since we wanted our monthly budget to be sustainable for 5 years, we calculated everything over that timeframe. We assumed that all income would be unchanged during the 5-year period but that housing costs would increase by 3% per year. In dollars, that means our housing support funding would remain fixed at $893 per month, but our monthly cost of housing would grow from $1,184 per month for year 1 to $1,337 per month for year 5 ($893 + $444 = $1,337). Those assumptions mean that the healthcare investment will grow to $444 per person per month by the end of the 5-year period.

The calculation for people who receive General Assistance

Previous posts detailed the housing budget calculation for a person receiving Supplemental Security Income (SSI). How does our calculation change if a person receives General Assistance (GA) payments instead of SSI? While the inputs are different, the financial conclusion is the same: housing still needs to cost less than $1,184 per month to build and operate for a person receiving GA. By way of illustration, remember Trina's situation described in a previous section. Trina participates in the Housing Support program and also qualifies for GA. Trina receives $99 per month from the State of Minnesota's GA program but pays none of it for housing. The administrator of her home receives $893 monthly from the Housing Support program so that Trina has $893 per month for housing. In both the GA and SSI examples, $893 per month is available for housing expenses throughout the 5-year period, and it is this consistent $893 per month combined with the healthcare investment

that results in the same conclusion: we need to design, build, and operate housing for $1,184 per month and pay off the capital loan in 5 years.

Home Equity creates Health and Financial Equity

Sustainability over five years offers a path towards true equity for people experiencing homelessness. In the context of housing, home "equity" refers to the portion of a property that a person truly "owns." In addition to providing shelter and improving the health of individuals experiencing homelessness – no small goals in themselves – we also want our housing to create social equity. We know that homelessness destroys health and we are confident that sustainable permanent supportive housing is an important step towards health equity for people experiencing homelessness, but we believe this sort of housing may also advance financial equity. If a resident repays the capital costs – in other words, pays off the mortgage on the home – we see the possibility that an individual may go from living on the streets to becoming a homeowner. Imagine, a person who was homeless five years earlier, is now the owner of a substantial asset: a home in their own name. What a step towards true equity!

A weakness in our current system

We believe we've identified a mechanism to sustainably fund housing by combining the current governmental Housing Support program with a healthcare investment. But a different, more human, concern remains: The current system of Housing Support leaves a person who does not earn any other income with only $99 per month – less than $3.30 per day – to spend on personal needs. The next section describes an innovation in Housing Support that addresses this weakness and allows a person to keep more of their money.

"It was really hard [to live off the $99 a month] and I still needed to sign."

-Kristi, Housing unstable

Section 8

Allowing People to Keep More of Their Money

An alternative model of Housing Support that could limit rent payments to 30% of income

Why do we need Housing Support innovation?

In section 4, we described how Minnesota's Housing Support program fits into our model and highlighted the weakness of this program: the fact that people with unearned income receiving Housing Support need to surrender all of their income to housing except $99 per month. This requirement means that program participants have less than $3.30 of spending money per day. The result of this requirement, while well-intentioned, can leave program participants feeling cheated and punished for their participation. It may even cause some participants to leave their stable housing situation because they prefer life on the street with more spending money in their pocket. The State of Minnesota is aware of this dynamic and has another option for Housing Support that eliminate this weakness.

Nuts and bolts of Housing Support's alternative model:

A second option for Minnesota's Housing Support allows recipients to pay a substantially lower percentage of their unearned income towards rent, keeping more money in their pocket. Paying 30% of income towards housing is a national standard and this alternative model of Housing Support allows programs to meet this standard. This model has been tried on a limited basis and stakeholders are monitoring the outcome.

Paying only 30% of income towards housing results in less money compared to our budget from the previous section. Recalling our examples, Tim, who receives $750 per month from SSI, will contribute $225 per month towards housing and keeps $525 per month for spending money. On the other hand, Trinia – who still receives $99 per month from Minnesota's General Assistance (GA) program – pays nothing towards housing while Housing Support pays $893 per month towards her housing costs. A 50-50 mix of residents receiving SSI and GA results in a monthly average rental payment of $112.50 per person per month paid by the residents themselves ($225 + $0 / 2 = $112.50).

For this alternative model to work for the state and its taxpayers, it needs to be "cost-neutral," costing the taxpayers nothing more per person than the current Housing Support payments. Excluding service funding, the State of Minnesota currently allocates $242 per month for people who receive SSI ($750-$99 = $651; $893-$651 = $242), and a much higher $893 per month for people who receive GA. We do not know what percentage of people living in this housing will receive SSI or GA. Colleagues at Minnesota's Department of Human Services estimated the mixture would be 80-90% GA and the balance SSI recipients. In an effort to create the most conservative financial estimate, we chose to use a 50-50 mixture of SSI and GA for our budget. The effect of this decision on the model is to reduce the average funds available to pay for housing. With a 50-50 mixture of residents receiving SSI and GA, the average Housing Support rental supplement allocation using this innovative model is $567.50 per month [($242 per month for SSI + $893 per month for GA) / 2 = $567.50 per month].

Therefore, the budget that allows people to keep more of their money pays for housing from the

following sources: $112.50 per month paid by the residents using 30% of their average monthly income, $567.50 per month directly allocated by Housing Support, and $444 per month invested by the healthcare system towards rent, making a total of $1,124 per month available for housing operations and capital repayment during the fifth year of the project. Recall from the previous section, we are committed to a sustainable 5-year budget and paying off the mortgage in 5 years. To figure out how much we have to spend on housing during the first year of the project, we then decreased this year 5 monthly housing funding by 3% per year:

Year 5 monthly housing funds = $1,124
Year 4 monthly housing funds = $1,124 x 97%
= $1,090
Year 3 monthly housing funds = $1,090 x 97%
= $1,058
Year 2 monthly housing funds = $1,058 x 97%
= $1,026
Year 1 monthly housing funds = $1,026 x 97%
= $995 per month

Using this model where only 30% of a person's income goes toward rent, the conclusion is that we need to build and operate housing for less than $995 per month during the first year of the project. This includes paying off the 5-year mortgage on the capital loan to purchase the housing or fund the construction. Compared to our first budget which anticipates building and operating housing for less than $1,184 per month, the new budget of $995 is 16% smaller; even so, we believe high-quality, permanent supportive housing can be built and operated on such a budget. At the same time, we expect that the housing we offer will be more attractive to our target population because it only requires 30% of their income to go towards housing costs. In other words, while less funds may constrain our housing designs, this budget will encourage people to remain in housing by leaving more money in their pockets.

To qualify for this alternative model of Housing Support, our program would need to establish baseline costs for the State of Minnesota, obtain Hennepin County approval, then work with the County to get State approval. Once approved, the allocated amount would only increase with small cost-of-living adjustments. Most importantly, whereas the traditional model of Housing Support described in section 4 is a forecasted program without a cap, the alternative Housing Support model is capped. So as healthcare financed housing expanded, we would utilize traditional Housing Support while continuing to work with the County and State to increase funding for the alternative model of Housing Support.

Appendix B details the monthly sources and uses of funding if we utilized the alternative cost-neutral direct allocation model. Appendix C shows the projected yearly funding over 15 years for the alternative cost-neutral direct allocation model.

Removing financial barriers

If the requirement to surrender almost all of their money to housing prevents people from seeking or remaining in housing, shouldn't we remove that barrier? Since paying 30% of income towards housing is a national standard, we plan to apply this standard for healthcare financed housing. Specifically, we plan to use the innovative model of Minnesota's Housing Support program which would cap contributions to housing costs at 30% of residents' income and we are designing our community so that units are built and operated for less than $995 per month. We will continue to work with the Minnesota Department of Human Services and Hennepin County in hopes of taking this concept to the next phase of detailed modeling and – beyond that – to a demonstration project.

Section 9

Next Steps Towards Health Equity

Envision health equity for all people experiencing homelessness

A common reaction that perpetuates inequity

Over the past several months, as we've researched and shared our financial model with experts, activists, healthcare payers, providers, and others, we've repeatedly heard the same reaction: It's not enough; you need to find more funding.

Their reaction is, of course, understandable. Even with the healthcare system filling in the funding gaps, $995 per month is not enough to build and operate housing under our current regulatory framework and to pay off the capital expense in 5 years. People often suggest that we include grant funding in our sustainable housing model. While we are seeking grant funding to support the initial pilot, we do not want rely on grant funding for long-term sustainability. While well-intentioned, we believe this instinctive reaction to search for more funding may perpetuate inequity.

From our perspective, pushing people to rely on additional funds creates an increasingly shaky financial house of cards. When even one additional funding source stops – that long-term grant ends or political shifts dry up a funding line – the financing for this housing collapses and people are back on the streets. Homes need to be a source of stability. We cannot finance these homes using potentially unreliable sources; asking people who are often already struggling with other vulnerabilities to rely on multiple funding sources makes them less secure and less settled over the long run. Our goal is not housing for a night, a week, a month or a year; it's permanent, sustainable housing for a lifetime.

We need to think differently about housing

Our project is rooted in a couple of fundamental principles: we believe that people experiencing homelessness can have a dignified home with the modest amount of money they actually have available to them. We believe that our society can build healthy and safe housing at a truly affordable cost. For this belief to become real, we need to redefine – or perhaps expand – how our society defines housing. The economists Quigley and Raphael said it best: "The way in which quality enhancements can make those with low incomes worse off is perhaps most vivid when minimum [housing quality] standards price the poorest households out of the market and increase the number of households that are homeless or at risk of becoming homeless."[3] Housing "quality enhancements" are those societal and regulatory features that add to the cost of housing while doing little – if anything – to enhance the primary role of a home – to provide safe, secure, sustainable housing. Think of them as accessories on a car: if every car on the road was required to meet the luxury standards of a Mercedes-Benz ($90,000), this requirement would force less luxurious cars out of the market. Too bad for the drivers who only want – or can afford – a Hyundai Accent ($15,000). Such a regulatory scheme, while ridiculous for cars, is much more prevalent in the housing market. That needs to change; we need to create a regulatory and societal framework that lets us build the Hyundai Accents of housing: safe, efficient, AND affordable.

A different approach

Our collaborative takes a different approach to

housing. Instead of starting with the building design and working backwards to raise the money to fund that design, we flipped that model by starting with the dollars that we believe are sustainably available and we are now designing housing based on those financial constraints. Based on our calculation of what money a person experiencing homelessness reliably has available to them along with a reasonable healthcare investment to fill in the gaps, we have set $995 per month as our budget and we are using that price-point to design safe, healthy housing to fit that budget. We are committed to spending no more than $995 per month because we want people experiencing homelessness to have housing that is truly affordable – and thus reliable – rather than forcing them to depend on additional funding sources. We envision people having the freedom and opportunity to live within their means. We also want to empower the healthcare system to help provide this housing, not because of an obligation or a "deep pocket," but because healthcare providers and payers will see improved health outcomes.

We need your help for continued financial innovation

Although we are at the end of our report and we have made our case, we want you to tell us where further improvements to this financial model can be made. Tell us of new research in the field and programs being implemented. Tell us where we're on solid ground, but – even more importantly – where our premises are suspect or our conclusions unwarranted.

We will also continue to refine this work with the hope that it evolves. We are currently exploring four possibilities for financial evolution:

1) Healthcare Reinvestment Pool: The University of Minnesota Masters of Health Administration (MHA) Advanced Problem Solving Course, in collaboration with the Minnesota Council of Health Plans, will be proposing ways for health plans to invest in housing.
2) Public housing subsidies: What would happen if we added reliable public housing authority subsidies to our model? The Minneapolis Public Housing Authority has joined our collaborative to explore these possibilities.
3) Minnesota Supplemental Aid (MSA) Housing Assistance: if our residents paid more than 40% of their income towards housing expenses, they may qualify for MSA, a special needs supplemental payment from the State of Minnesota. This would introduce alternate funding for housing and create more financial freedom for the residents of our housing.
4) Open-market, extremely affordable housing: We are planning for our communities to not only include people who were formerly homeless but also people who have never been homeless and are looking for more affordable housing options, who wish to live more simply, or who want to join a vibrant community.

Where we're headed next

Our model tells us that we cannot spend any more than $995 per person per month to build, operate, and pay off a 5-year loan for healthcare financed housing. We know this is not enough money to pay for everything that is wanted. Who should decide how to spend this limited budget? We believe future residents and the surrounding community should choose since it will be their community. Our next step is to co-create a single unit with people experiencing homelessness and other members of the community. The result will be housing that fits into our budget that is desired by people experiencing homelessness and our larger community. We are also taking a human-centered design approach to develop small tests of change to quickly and cheaply learn what types of political, financial, and community barriers exist and how to overcome them. Then we intend to give this community a real-world test with a pilot demonstration. We welcome your help with any step in the process to make healthcare financed housing a reality.

Housing and community creates health equity

We know that, in Minnesota, different racial, ethnic, and social groups and even different geographic regions have drastically different health outcomes.[15,16] People experiencing homelessness are a clear example of a group with significant health inequities. Building supportive housing and communities that people can actually afford will to begin to heal the health inequities they've experienced. This model creates the financial conditions necessary to cultivate health equity.

Like many aspects of our society, our healthcare system produces inequities; not everyone gets access to the care they need or deserve.[17] These inequities cannot be addressed by "throwing money" at the problem; the need is too great and funding will always be too limited. To break this paradigm, we need to recognize that healthcare is part of a larger system and it is at this level that we need to look for solutions, particularly for our most intractable and difficult problems.

This project is an effort to impact the larger system by rethinking one of our most fundamental societal elements: our housing. Should we let our housing standards price the poorest people out of the market? What are the minimum requirements for safe, healthy, and supportive housing? How might we make it available to our community members least able to afford it? These are questions that can help us improve health care, use our resources more productively, and help every member of our community achieve their highest level of health.

How you can help

Please share this report with anyone who may be interested. We need your feedback to improve this financial model. Show us where it is fragile and share your suggestions on how to strengthen it. Email your feedback to William Walsh at William.Walsh@hcmed.org. Comments are requested by September 1, 2018. Thank you!

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Appendix A

Staff from Project for Pride in Living (PPL) estimated the supportive services needed by potential residents of healthcare financed housing. The supportive services and roles are:

Housing Case Manager
Provides flexible, individualized services including:

Housing Transition Services include:
- assisting with the application process and paperwork
- management of move-in process
- creation of a housing stability plan
- assistance to cover one-time expenses to establish a household such as security deposits, moving costs, furnishings, adaptive aids, and environmental modifications.

Housing Sustaining Services include:
- early identification and intervention for behaviors that may jeopardize housing
- education on the rights/responsibilities of the tenant and landlord
- assistance with resolving disputes with property management and neighbors
- support related to household management (life skills, budgeting, work readiness skills)/
- advocacy and linkage to social service and medical resources
- transportation to appointments
- assistance with the housing re-certification process.

Resident Support Specialist part-time services may include:
- planning community building activities
- facilitating resident council meetings
- posting community resources and safety information
- monitoring campus for concerns such as excessive traffic, concerns around behavior of residents, visitors or neighbors, loud music, potential lease violations, and maintenance issues.

Services not included in this supportive service estimate but likely needed by people living in healthcare financed housing include:

- Primary and specialty care
- Mental healthcare
- Chemical dependency treatment
- Healthcare navigation: supports housing stability and use of primary care vs emergency care, also ensures efficient and complete billing for Housing Support dollars (Housing Support requires an annual Professional Statement of Need that when delayed can result in gap in housing dollars collected). This navigation support is potentially provided by a community health worker.

We expect these services will be reimbursed through Medicaid.

Purposeful work positively impacts health and we want residents of healthcare financed housing to find meaningful employment and volunteer opportunities when possible. Vocational training will be offered but is not included in the estimate of supportive services. At this time, these expenses would come out of the housing operations budget.

Appendix B: Projected Monthly Sources and Uses

This section details the monthly sources and uses of funds if we utilize the alternative cost-neutral direct allocation Housing Support payment model described in section 8 where people get to keep more of their money, spending only 30% of their income on housing costs. Using this payment model, we need to keep our costs for building, operating, and paying off the 5-year mortgage for healthcare financed housing to less than $995 per month.

Table 1: Monthly sources of funds

	Housing Sources				**Supportive Service Sources**			
	Average Housing Support payment	Average rent paid by resident	Health-care	Total Housing Income	Housing Support Service payment	Health-care	Total Service Income	**Total Project Income**
Year 1	$567.50	$112.50	$315	$995	$483	$150	$633	$1,628
Year 2	$567.50	$112.50	$346	$1,026	$483	$169	$652	$1,678
Year 3	$567.50	$112.50	$378	$1,058	$483	$189	$672	$1,729
Year 4	$567.50	$112.50	$410	$1,090	$483	$209	$692	$1,782
Year 5	$567.50	$112.50	$444	$1,124	$483	$229	$712	$1,836
Year 6	$567.50	$112.50	$0	$680	$483	$251	$734	$1,414
Year 7	$567.50	$112.50	$0	$680	$483	$273	$756	$1,436
Year 8	$567.50	$112.50	$0	$680	$483	$296	$779	$1,459
Year 9	$567.50	$112.50	$0	$680	$483	$319	$802	$1,482
Year 10	$567.50	$112.50	$0	$680	$483	$343	$826	$1,506
Year 11	$567.50	$112.50	$0	$680	$483	$368	$851	$1,531
Year 12	$567.50	$112.50	$0	$680	$483	$393	$876	$1,556
Year 13	$567.50	$112.50	$0	$680	$483	$420	$903	$1,583
Year 14	$567.50	$112.50	$0	$680	$483	$447	$930	$1,610
Year 15	$567.50	$112.50	$0	$680	$483	$474	$957	$1,637

Table 2: Monthly uses of funds

	Mortgage Payment[1]	Operations[2]	Housing Expenses (Mortgage + Operations)	Services[3]	Total Project Expenses (Housing + Services)
Year 1	$546	$444	$990	$633	$1,623
Year 2	$546	$458	$1,004	$652	$1,656
Year 3	$546	$472	$1,018	$672	$1,689
Year 4	$546	$486	$1,032	$692	$1,724
Year 5	$546	$501	$1,047	$712	$1,760
Year 6	$0	$517	$517	$734	$1,251
Year 7	$0	$533	$533	$756	$1,289
Year 8	$0	$549	$549	$779	$1,328
Year 9	$0	$566	$566	$802	$1,368
Year 10	$0	$584	$584	$826	$1,410
Year 11	$0	$602	$602	$851	$1,453
Year 12	$0	$621	$621	$876	$1,497
Year 13	$0	$640	$640	$903	$1,542
Year 14	$0	$660	$660	$930	$1,589
Year 15	$0	$680	$680	$957	$1,637

Assumptions:

1. Loan details include: $30,000 total development cost per unit, 3% interest rate, 5-year term, and a loan-to-value ratio of 100% resulting in a mortgage payment of $546 per month.
2. Operational costs increase 3% per year.
3. Supportive service costs increase 3% per year.

Appendix C:
Projected Yearly Funding over 15 years

This table details the yearly funding needed for one person to live in healthcare financed housing using the cost-neutral direct allocation model described in section 8 and appendix B.

	Housing Sources				**Supportive Service Sources**			**Source Totals**		
	Average Housing Support payment	Average rent paid by resident	Health-care	Total Housing Income	Housing Support Service payment	Health-care	Total Service Income	Housing Support (Housing + Services)	Health care (Housing + Services)	**Total Project**
Year 1	$6,810	$1,350	$3,781	$11,941	$5,796	$1,800	$7,596	$12,606	$5,581	$19,537
Year 2	$6,810	$1,350	$4,150	$12,310	$5,796	$2,028	$7,824	$12,606	$6,178	$20,134
Year 3	$6,810	$1,350	$4,531	$12,691	$5,796	$2,263	$8,059	$12,606	$6,793	$20,749
Year 4	$6,810	$1,350	$4,923	$13,083	$5,796	$2,504	$8,300	$12,606	$7,428	$21,384
Year 5	$6,810	$1,350	$5,328	$13,488	$5,796	$2,753	$8,549	$12,606	$8,081	$22,037
Year 6	$6,810	$1,350	$0	$8,160	$5,796	$3,010	$8,806	$12,606	$3,010	$16,966
Year 7	$6,810	$1,350	$0	$8,160	$5,796	$3,274	$9,070	$12,606	$3,274	$17,230
Year 8	$6,810	$1,350	$0	$8,160	$5,796	$3,546	$9,342	$12,606	$3,546	$17,502
Year 9	$6,810	$1,350	$0	$8,160	$5,796	$3,826	$9,622	$12,606	$3,826	$17,782
Year 10	$6,810	$1,350	$0	$8,160	$5,796	$4,115	$9,911	$12,606	$4,115	$18,071
Year 11	$6,810	$1,350	$0	$8,160	$5,796	$4,412	$10,208	$12,606	$4,412	$18,368
Year 12	$6,810	$1,350	$0	$8,160	$5,796	$4,719	$10,515	$12,606	$4,719	$18,675
Year 13	$6,810	$1,350	$0	$8,160	$5,796	$5,034	$10,830	$12,606	$5,034	$18,990
Year 14	$6,810	$1,350	$0	$8,160	$5,796	$5,359	$11,155	$12,606	$5,359	$19,315
Year 15	$6,810	$1,350	$0	$8,160	$5,796	$5,694	$11,490	$12,606	$5,694	$19,650