# Housing Pathway Assessment and Return on Investment Analysis

Kelly O'DonnellOctober, 2016

## Table of Contents



# Introduction

Stable housing is one of the most critical and cost-effective pathways to better health. Completion of the housing pathway can reduce a previously homeless client's healthcare costs by several-fold while also generating cost savings for the public safety, criminal justice, and educational systems. Despite these benefits, numerous social and institutional barriers make the acquisition of safe, stable housing one of the most difficult pathways to complete and one of Bernalillo County's most intractable health challenges.

Three-hundred-forty-six clients have completed the housing pathway since the Pathways program's inception and 22 percent (39 single adults and 37 single parents) have been placed in permanent subsidized housing through their participation in Pathways. Another 22 percent received temporary rental assistance, and 56 percent (99 individuals and 95 families) were housed without the aid of housing subsidies. Completion of the housing pathway is estimated to have produced between

$555,500 and $925,833 in healthcare cost savings. Subtracting Pathways program costs from total benefits yields net cost savings of between $99,170 and $469,503 and a benefit-to-cost ratio of 1.2 to 2.0.

The 76 clients who obtained permanent and affordable housing as a result of their participation in Pathways are likely to have reaped many benefits, including better health and lower healthcare costs, but a far greater number of equally deserving people, both inside and outside the Pathways program, are foregoing those same benefits as they wait, sometimes for years, for permanent housing assistance. If all Pathways clients who completed the housing pathway were placed in *permanent.* subsidized housing, net benefits, over the life of the program, would be $725,584 to $1.5 million, over twice the current estimate. A key take away from our analysis of the housing pathway is that Bernalillo County pays a high price for inaction and under-investment in affordable housing.

## Bernalillo County Housing Landscape

According to Albuquerque Healthcare for the Homeless, roughly16,000 Bernalillo County residents experience homelessness each year.[1] Albuquerque Public Schools provided services to 4,000 students experiencing homelessness in school year 2014-2015.[a,b]
Three quarters (74%) of Pathways client and 71 percent of clients who pursue the housing pathway reside in one of five zip codes -- 87102, 87105, 87108, 87121, and 87123.

**Table 1: Pathways to a Healthy Bernalillo County, Clients by Zip Code**

| | Housing Pathways | | | Percent of all housing pathway clients in zip code |
|---|---|---|---|---|
| | Attempte | Completed | Total | |
| 87102 | 73 | 28 | 101 | 12% |
| 87105 | 73 | 69 | 142 | 16% |
| 87107 | 20 | 20 | 40 | 5% |
| 87108 | 126 | 88 | 214 | 25% |
| 87112 | 31 | 16 | 47 | 5% |
| 87121 | 58 | 30 | 88 | 10% |
| 87123 | 38 | 18 | 56 | 7% |
| Other | 96 | 77 | 173 | 20% |
| Total | 515 | 346 | 861 | 100% |
| Source: Pathways database queried August 5, 2016 | | | | |

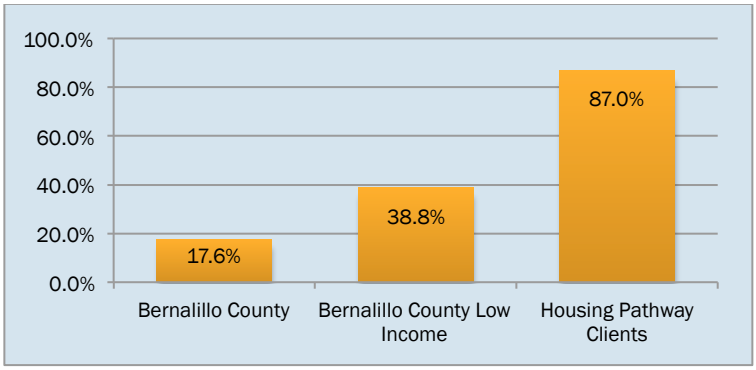
## How Does Housing Impact Health?

Housing is a key social determinant of health. A safe and stable home is the foundation of physical and mental wellbeing, making it possible for people to take advantage of and benefit from other health interventions and supportive services. Homelessness has a broad array of well-documented

[a] Public schools define homelessness pursuant to the McKinney-Vento homeless assistance programs, last reauthorized in
[b] A "point-in-time" (PIT) count of Albuquerque's homeless population is conducted every January. The PIT includes homeless people in shelters and those who are unsheltered, but fails to capture the majority of homeless people who are "couch-surfing," sleeping in their cars, staying in a motel on the night the count is conducted, or otherwise obtaining temporary shelter outside the homelessness service system (See: The Homeless Emergency Assistance and Rapid Transition to Housing (HEARTH) Act of 2009 Public Law 111-22). The PIT count also misses individuals and families at imminent risk of homelessness, which is defined by the US Department of Housing and Urban Development (HUD) as those who must leave their current housing within the next 14 days, "with no other place to go and no resources or support networks to obtain housing."[b] The 2015 point-in-time (PIT) count of Albuquerque's homeless population totaled 1,171 individuals, including 295 victims of domestic violence, 311 adults with mental illness, 293 people 18 and under, and 122 families with children.

health impacts, but other characteristics of housing, including affordability, stability, structural and environmental features, and myriad aspects of the surrounding community also impact the physical and mental health of residents.

**Figure 1: Percent of Bernalillo County Adults Who Rate Their Health as "Fair" or "Poor" 2011-2014**




Sources: Behavioral Risk Factor Surveillance System (BRFSS) and Pathways Client Database

Just under 18 percent of Bernalillo County residents rate their health as "fair" or "poor." This rate more than doubles for low-income county residents and more than quadruples for housing pathway clients (Figure 1).

## Homelessness

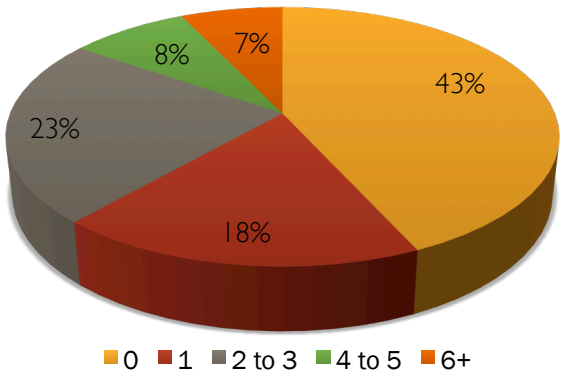
Homeless and housing insecure New Mexicans experience high rates of chronic disease including mental illness, substance use disorders, diabetes, HIV/AIDS, and hypertension and are more likely than the general population to experience multiple chronic conditions.[2] Poor health is both a cause and a consequence of homelessness. Health problems that make it impossible to work or impair an individual's capacity for self-care can lead to homelessness. Once homeless, individuals are exposed to a variety of health risks including victimization, violence, hunger, poor nutrition, exposure, infectious disease, sleeplessness, and profound, toxic stress.

People without stable housing face many challenges to maintaining good health including difficulty obtaining, storing, and consistently taking medications; maintaining a recommended diet; and accessing social services. They often have limited access to primary care and have difficulty following through on clinician recommendations or attending follow up appointments.[3] As a consequence, people experiencing homelessness frequently make excessive or inefficient use of emergency departments and other costly healthcare services. Homelessness has been correlated with longer hospital stays.[4] Researchers funded by the Agency for Healthcare Research and Quality (AHRQ) found that, when compared to other insured low-income adults, fully insured homeless adults had 1.7 to 1.9 times more office visits, 3.4 to 12 times as many emergency department encounters, and 2.1 to 8.5 times as many inpatient hospitalizations. Consequently, healthcare costs for insured homeless adults were, on average, 3.54 times higher than those of insured low-income adults of the same sex and age.[5] [c] A study of homeless adults in Boston found annual healthcare costs that averaged $28,436.[6] Conversely, numerous studies have documented reduced in-patient hospitalization, psychiatric hospitalization, and emergency department use when homeless people receive permanent, stable housing (See page 7).

[c] Researchers found healthcare costs for homeless individuals were 4.16 times higher for single men, 3.62 times higher for single women and 2.04 times higher for adults in families.

*A chronically homeless adult in Albuquerque utilizes an average $24,000 worth of public services annually, including $3,000 for homeless shelter services, $4,400 in emergency room charges and almost $14,000 in behavioral health costs.*
*-- City of Albuquerque Housing First Cost Study Final Report*

**Figure 2: Emergency Department Encounters in the Past 3 Months by Bernalillo County Residents Experiencing Homelessness, 2011-2012**




Source: Guerin, Paul. Institute for Social Research, University of New Mexico, analysis of the Vulnerability Index survey, in Albuquerque Health Care for the Homeless. Phase I Needs Assessment January 2014-June 2014

## Child Health

Fifty-one percent of clients who pursue the housing pathway have dependent children in their care. Unstable or otherwise inadequate housing has been shown to negatively impact the current and future health of children.[7] When compared to children with adequate housing, homeless children are more likely to have both acute and chronic health problems, including respiratory infections,[8] ear infections,[9] and asthma,[10] emotional and behavioral problems,[11] and delayed development.[12] Compared to children with stable housing, children experiencing homelessness are less likely to receive regular primary care,[13] more likely to be hospitalized, and more likely to visit an emergency room two or more times in a year.[14] Children's Health Watch estimates that, for children ages 0 through 4, pre- and post natal homelessness increases the likelihood of non-birth related hospitalization by 41 percent and increases the likelihood that a healthcare provider will rate the child's health as "fair" or "poor" by 99 percent.[15] "Fair" or "poor" health is a widely accepted measure of suboptimal health that has been shown to be highly predictive of health services utilization, including hospitalizations and ambulatory care.

Homelessness is often multi-generational. Experiencing homelessness as a child greatly increases the odds of experiencing homelessness in adulthood.[16] Children with a history of housing instability and/or homelessness also have higher adult mortality rates than their adequately housed peers and are 25 percent more likely to report poor health in adulthood.[17]

A number of studies have explored the effects of homelessness on child health; but few, if any, have quantified its short-term impact on child healthcare costs. , but T hat alone is not enough to drive a cost estimate. Nor is the increased likelihood of hospitalization, given that it refers only to the one-third of youngsters under the age of five.

Over two-thirds of clients who attempted the housing pathway said they feared family separation. Homelessness is a risk factor for foster care placement and a major impediment to family

reunification once a child is removed from parents. Twelve percent of homeless children have been placed in foster care, compared with one percent of other children,[18] and at least 30 percent of children in foster care could return home if their parents had access to housing.[19] [20] Navigator notes indicate that many housing pathway clients are motivated to seek stable housing by a desire to be reunited with their minor children.

## Factors Contributing to Homelessness Among Pathways Clients

Poverty and the resulting inability to afford housing is a primary cause of homelessness in Bernalillo County and across the U.S. is poverty.[21] Eighty-eight percent of clients who pursue the housing pathway are unemployed and 86 percent report having trouble feeding and/or clothing their families. But other factors, including mental illness, substance use disorder, domestic violence, and incarceration, also contribute significantly to the problem.

### *Domestic Violence*

Over half of women who pursue the housing pathway say they are sometimes afraid of their intimate partner and 62 percent report having been the victim of domestic violence at some point. Fifty-eight percent of the women who say they are sometimes afraid of their partner are single mothers with no parenting support, financial or otherwise. Intimate partner violence is a frequent cause of homelessness and housing instability. The ability to access safe, affordable housing is critical to successfully leaving an abuser.[22]

### *Incarceration*

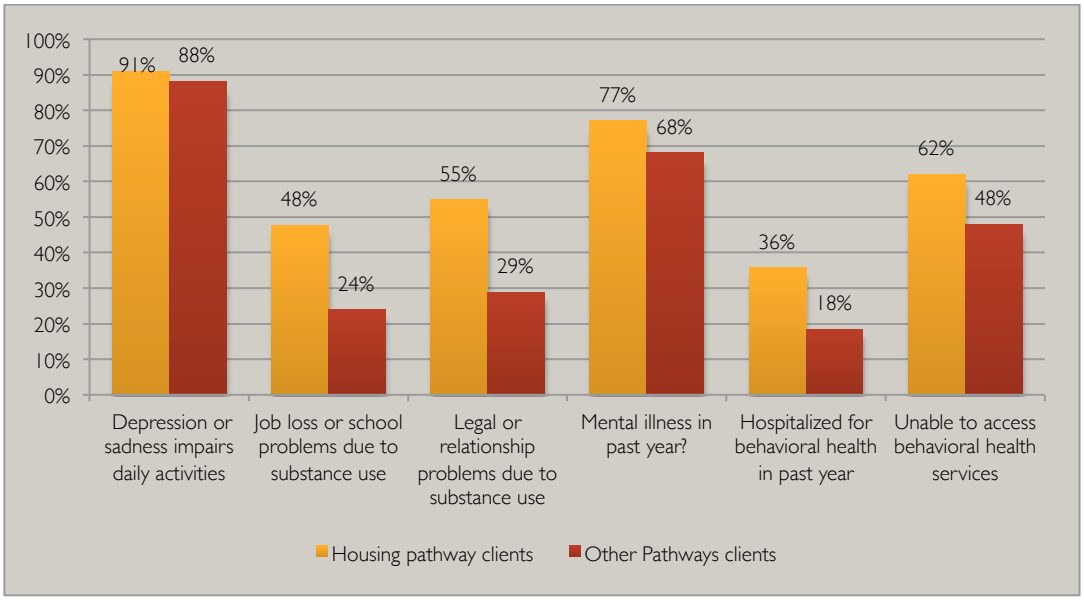
Twenty-seven percent of clients who attempt the housing pathway have recently been released from jail or prison. In the U.S. it is estimated that one in five people leaving prison becomes homeless upon reentering the community.[23] Stable housing is critical for successful re-entry to the community after a period of incarceration. A home is the platform from which returning citizens can obtain employment, access healthcare, maintain sobriety, and connect with supports within their community. Barriers including affordability, unemployment, previous evictions, discrimination against ex-offenders, and strict eligibility requirements for federally subsidized housing[24] can make acquiring suitable, permanent housing extremely difficult, both for the returning citizen and their families. Housing assistance, including supportive housing, has been found to reduce rates of criminal recidivism and increase rates of employment.[25] [26]

### *Behavioral Health*

Approximately 30 percent of the chronically homeless population in the US has a severe mental illness and roughly two-thirds have a substance use disorder or other chronic health condition that impedes their ability to obtain and maintain stable housing.[27] Almost one third of Albuquerque Healthcare for the Homeless patients experience mental illness, 50 percent admit to problems with alcohol, and one-fourth self-report problems with street drugs.

The majority of Pathways clients experience some form of mental illness and roughly one-quarter report substance misuse problems. These problems are even more prevalent among clients who pursue the housing pathway. Housing pathway clients are over twice as likely as other Pathways clients to report that their use of controlled substances has caused problems in their lives, 13 percent more likely to self-report mental illness, and twice as likely to have been hospitalized for behavioral health issues within the past year.

**Figure 3: Behavioral Health Issues: Housing Pathway Clients Compared to Other Pathways Clients**




Source: Pathways client database accessed August 10, 2016

## Housing Costs and Disposable Income

For every family currently experiencing homelessness, several more are teetering at its brink. Housing instability is both a profound stressor and a drain on the household resources needed to maintain health. [28] [29] [30] Forty-one percent of Bernalillo County's 99,200 renters pay more than 35 percent of income in rent. Over half of renters in the South Valley (87105) and the Southeast Heights (87108) pay over 35 percent of income in rent[31] (See Table 2). High housing costs limit the quantity and quality of healthcare residents can afford to access. The more income a family must devote to rent, the less they have for food, clothing, health care, and transportation.[32]

**Table 2: Housing conditions and costs in Bernalillo County zip codes with large percentages of Pathways clients**

| Housing Deficits: Bernalillo County and Selected Pathways Zip Codes | | | | | | |
|---|---|---|---|---|---|---|
| | | Occupied Housing Units | | | Owner-occupied housing w/ mortgage: owner costs >35% of hh income | Rental housing: gross rent more than 35% of hh income |
| | % Pathways clients | Lack complete plumbing facilities | Lack complete kitchen facilities | >1 occupant per room | | |
| Bernalillo County | 100% | .5% | .8% | 2.8% | 26.0% | 41.0% |
| 87102 | 9% | 1.2% | 1.3% | 4.7% | 37.8% | 43.2% |
| 87105 | 17% | .3% | .5% | 4.6% | 33.0% | 52.8% |
| 87108 | 24% | .4% | .3% | 6.9% | 29.6% | 52.7% |
| 87121 | 16% | .8% | .9% | 4.7% | 32.3% | 49.4% |
| 87123 | 8% | .6% | .9% | 4.4% | 27.7% | 39.6% |
| Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates | | | | | | |

## Housing Conditions

For low-income families, remaining housed may require sharing a home with one or more other families and/or living under substandard conditions. The average number of occupants per room is a

measure of household over-crowding. Almost 7 percent of households in the Southeast Heights have more than one occupant per room. (See Table 2) People who struggle to afford housing may tolerate physical and environmental hazards to keep a roof over their heads. Physical hazards increase the risk of accidents while environmental hazards can cause or exacerbate the symptoms of disease.[33] Households in the downtown neighborhoods (87102) are over twice as likely as other Bernalillo County households to have inadequate plumbing and 50 percent more likely to lack complete kitchen facilities.

### Neighborhood Factors

Living in high poverty neighborhoods has been shown to negatively impact physical and mental health.[34] Communities with high poverty rates often have heightened mortality from chronic disease and injury, higher rates of health risk behaviors, and worse birth outcomes than less disadvantaged neighborhoods.[35] [36] [37] [38]Possible reasons for this include high crime rates that threaten physical safety and heighten stress, [39] environmental pollutants, lack of recreational opportunities, inadequate public services, and limited access to affordable, healthy food due to a scarcity of grocery stores. Research has documented improvements in the health of low-income families who use housing vouchers to relocate to less impoverished neighborhoods.[40] [41]

### Types of Housing Assistance Utilized by Pathways Clients

Bernalillo County's housing safety net is complicated and woefully inadequate. Numerous government, non-profit, and faith-based entities administer housing programs for specific, high-risk populations. Each has different and often very specific and quite extensive requirements, few have availability at any given time, and some have waiting lists of over two years.

The scarcity of housing and the complexity of the housing safety net make navigation especially critical. Pathways navigators must sift through a wide array of housing programs to find one that fits their client and has an opening. Permanent subsidized housing is, by far, the most effective antidote to chronic homelessness, but it is also the most difficult to access. Despite navigators' deep knowledge of the county's housing landscape and their diligent efforts over months and sometimes years, only a small minority of clients receive permanent, subsidized housing during their participation in Pathways.

### Permanent subsidized housing

Permanent housing that is paid for, in part, by local, state, or federal government, including housing vouchers and income-based rental housing.

#### *Vouchers*

The Housing Choice Voucher (Section 8) program provides a housing subsidy in the form of a voucher that low-income families can use to obtain housing in the private rental market. The subsidy enables families to obtain higher quality housing and to move to safer, more desirable neighborhoods, [42] [43] [44] while ensuring that they pay no more than 30 percent of income in rent. The Section 8 voucher program provides a number of benefits linked to improved health outcomes including reduced food insecurity,[45] greater housing stability, increased Medicaid and SCHIP enrollment,[46] increase participation in other public benefit programs including food assistance and child care subsidies,[d] [47] and has been correlated with numerous positive health outcomes[48]

[d] Early childhood interventions for low income children have been shown to have lasting positive impacts on child health and well-being the value of which exceed program costs by as much as seven fold (See: Heckman, JJ, Seong Hyeok Moon, Rodrigo Pinto, Peter A. Savelyev, and Adam Yavitz,(2010). The Rate of Return to the HighScope Perry Preschool Program. *Journal of Public Economics* 94, nos. 1–2: 114–128.)

including improved self-rated physical and mental health,[49] [50] [51] and reduced prevalence of extreme obesity,[52] diabetes,[53] depression, and anxiety.[54] Receipt of Section 8 has also been linked to decreased hospitalizations, [55] institutional stays and ER visits for formerly homeless individuals.

A major advantage of housing vouchers over other forms of housing assistance, and a probable driver of their health benefits,[56] is the opportunity they provide families to live in areas of less concentrated poverty. Economists at the Federal Reserve Bank of San Francisco estimate that the use of housing vouchers to move to lower poverty neighborhoods can produce per capita medical cost savings ranging from $5,750 and $9,500 due to reductions in adult diabetes and extreme obesity.[57]

Both Bernalillo County and the City of Albuquerque administer Housing Choice Voucher programs. As of May 2013, 100 Section 8 vouchers were available in Bernalillo County[58] and wait times averaged 45 months but could be as long as 60 months.[59] The Albuquerque Housing Authority (AHA) currently provides Section 8 rental assistance to over 4,000 Albuquerque families.[60]

### *Income-based rental housing*

Tenants of income-based rental housing qualify for housing on the basis of their income and pay a certain, fixed percentage (typically 30%) of their income in rent. Income-based rental housing includes housing owned by local public housing authorities, privately owned rental housing that is made available at low cost to people with low incomes using Section 8 funding, and properties built by private developers using federal and state tax credits that require them to provide below-market rents for low-income people, persons with disabilities, and/or seniors. Income-based rental housing has the advantage of permanence and government imposed standards of quality, but it is not portable and greatly limits the ability of tenants to choose where they live.

There are a number of income-based rental properties in Bernalillo County, examples include: La Vida Nueva, Gene Gilbert Manor, and Silver Crest Manor.

### Supportive housing

Permanent, affordable housing with on-site, wrap-around services for complex, often chronically homeless tenants. Housing First is a model of supportive housing that has no pre-conditions for sobriety and does not require that tenants receive treatment to maintain housing. Programs do, however, seek to maximize housing stability by engaging tenants, communicating with property managers, and mediating conflicts with landlords. In Bernalillo County, permanent housing for homeless individuals with chronic mental illness and/or substance abuse issues is provided by Shelter Plus Care programs, the Supportive Housing Coalition – Housing First program, and City of Albuquerque Heading Home Initiative.

Cost studies in a number of different states and cities, including Albuquerque,[61] have found that supportive housing reduces tenants' use of emergency services,[62] medical detox and sobering services, [63] and in-patient admissions, [64] resulting in significant reductions in healthcare costs.[65] [e] In Los Angeles, supportive housing produced estimated public sector net benefits of $1,190 per resident per month, with reduction in the use of health services, including inpatient hospitalizations, emergency response and emergency department services accounting for three quarters of the savings.[66] In Denver, 50 percent of supportive housing tenants experienced improved health status, 43 percent had better mental health outcomes, and 15 percent reduced their use of illicit substances.[67]

[e] In Massachusetts, supportive housing reduced average per capita Medicaid costs from $26,124 to $8,499. After adjusting for program costs, the intervention saved $8,949 per person.

Numerous studies and program evaluations have measured the impact of supportive housing on healthcare costs. A recent analysis of this literature estimates that supportive housing increases expenditures on primary care by 16 percent and produces average cost reductions of 13 percent for hospitalization, 6 percent for psychiatric hospitalization, and 16 percent for emergency department visits. Evaluations of supportive housing programs in Boston[68] and Seattle[69] found reductions in Medicaid costs of 67 percent and 41 percent respectively after one year of supportive housing.

### Rapid re-housing

Rapid rehousing seeks to move people experiencing homelessness into permanent housing as quickly as possible by providing temporary housing subsidies for private-market rentals coupled with limited, housing-related supports.

### Project-based transitional housing

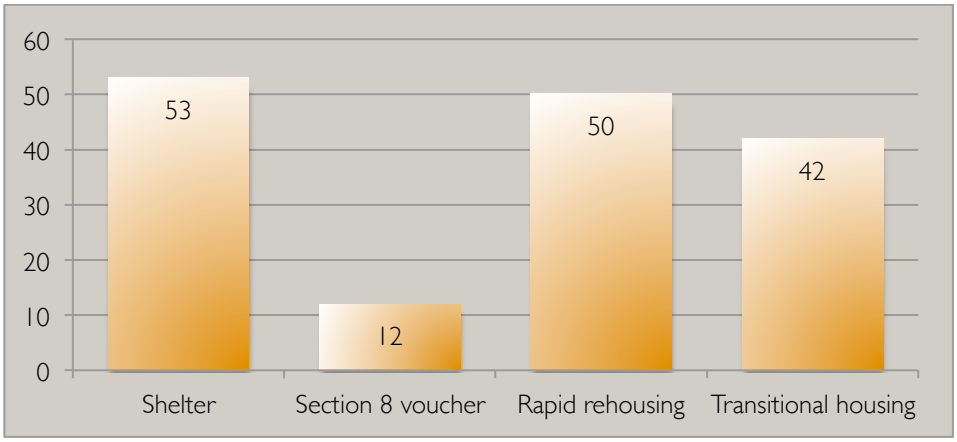
Transitional housing provides temporary housing for people experiencing homelessness or those at risk of homelessness after leaving an abusive household or upon release from jail. Tenants are housed in agency-controlled units and provided with intensive support services. Unlike Housing First, transitional housing clients are required to utilize supportive services.

### Independent housing

For purposes of this analysis, independent housing is market rate housing obtained by the individual with minimal, if any, external supports. On the up side, such arrangements entail minimal direct public sector costs. However, at market rates, rent consumes such a large share of income that low-income families struggle each month to remain housed and afford food, transportation, healthcare, and other necessities. For these self-sufficient households, homelessness is a perpetually looming threat. Affordable market-rate housing is rarely available outside of extremely disadvantaged neighborhoods, preventing low-income families from accessing the better schools and other resources available in lower-poverty neighborhoods.

A typical independent housing arrangement mentioned in navigator notes is a $430/month studio at one of the Warren properties in the Southeast Heights. For an individual receiving the maximum Federal Supplemental Security Income (SSI) payment of $733 month, this rent constitutes 59 percent of income. A single mother working 35 hours per week at Albuquerque's $8.75 minimum wage would pay 42 percent of gross monthly income for a one-bedroom apartment in the same complex. Even with move-in, deposit, utility, and short-term rental assistance, these arrangements are highly tenuous.

**Figure 4: Homeless Families: Number of Days Homeless or Doubled Up in Past Six Months, by Type of Assistance Offered, 18 months post intervention**




Source: Department of Housing and Urban Development Family Options Study: Short-term Impacts of Housing and Services Interventions for Homeless Families

Although any form of housing assistance is of value to someone confronting homelessness, research suggests that some types of assistance are far more beneficial and lasting than others. Figure 3 presents survey results from the Department of Housing and Urban Development Family Options Study, a large multi-site comparison of housing interventions for homeless families. Families were surveyed 18 months after random assignment to a specific housing intervention.[70] Housing Choice Voucher recipients were far less likely than other groups to report homelessness.

## The Housing Pathway

Twenty-three percent of Pathways participants (861 clients) have attempted the housing pathway. Forty percent (346) have completed the pathway. Pathways clients who pursue the housing pathway typically do so because are presently homeless, in imminent danger of homelessness or need to leave an unsafe housing situation, often due to domestic violence.

Despite the fact that all housing pathway clients are evaluated for subsidized housing and most clients qualify for one or more housing programs, review of navigator notes indicates that the majority of clients who completed the housing pathway did so by obtaining an unsubsidized, relatively low cost market-rate studio apartment. Navigators helped many clients apply for Albuquerque, Bernalillo County, and tribal Section 8 programs; but unless applications were expedited due to specific circumstances or client characteristics, and the vast majority were not, the waiting time for permanent housing was approximately two years and the pathway was closed long before a voucher was awarded.

The profound shortage of permanent, subsidized housing means that the most many navigators can do for their clients is to stay in regular contact with the housing authorities to monitor their clients' slow progress up the waiting list, while, in the meantime, assisting the client in

***Upon entry to Pathways program, 88 percent of housing pathway clients characterized their health as "fair or poor," 51 percent had utilized the ER or been hospitalized three or more times in the previous 12 months, and 30 percent had been hospitalized for behavioral health issues within the past year.***

***The housing pathway takes an average of 175 days (roughly six months) to complete. Eleven (85%) of the 13 Pathways clients who completed the housing pathway and took the exit interview said their health had "improved" or "greatly improved" since beginning Pathways and only two (15%) reported having used the ED or having been hospitalized since starting Pathways.***

securing temporary assistance and/or market-rate housing for the months or even years they are likely to be waiting for permanent housing.

Pathways navigators help their housing clients to:

- Secure steady income with which to pay rent, primarily through employment, SSDI, or temporary cash assistance (TANF). Forty-six percent of housing pathway clients simultaneously pursue the employment pathway and 12 percent pursue the pathway that helps them apply for cash assistance from the state.
- Qualify for and obtain short-term rental assistance through one of a number of governmental and charitable rapid rehousing programs in the Albuquerque area.
- Obtain funds with which to pay application fees and make rental deposits.
- Obtain free SafeLink Wireless® phones to communicate with potential landlords and employers.
- Communicate effectively with property managers.
- Clarify the housing features they need and can afford such as number of bedrooms, disability accommodations, and proximity to school, work, social services, and transportation.
- Negotiate with potential landlords around bad credit and/or histories of eviction.
- Collect documentation necessary for rental applications including birth certificates, Social Security cards, and government I.D.s.
- Avoid eviction from their current housing by negotiating past-due rent or other issues with aggrieved landlords
- Connect gas and electric utilities, including making deposits and dealing with past-due bills
- Qualify for the Low Income Housing Energy Assistance Program (LIHEAP) to help pay for utilities.
- Obtain other supports, including food and medical assistance, that free up additional income for rent
- Obtain motel vouchers for short periods of time while the client seeks housing or awaits their move-in date

The most common pathways pursued in addition to housing were employment, followed by behavioral health, and health care home

**Table 3: Top 10 Pathways Attempted by Housing Pathway Clients**

| Pathway | Percent of housing clients who pursue this pathway |
|---|---|
| Employment | 46% |
| Behavioral Health | 24% |
| Health Care Home | 23% |
| Legal Services | 15% |
| Food Security | 15% |
| Education/GED | 13% |
| Dental Care | 12% |
| Income Support (ISD) | 12% |
| Vision & Hearing | 11% |
| Transportation | 10% |

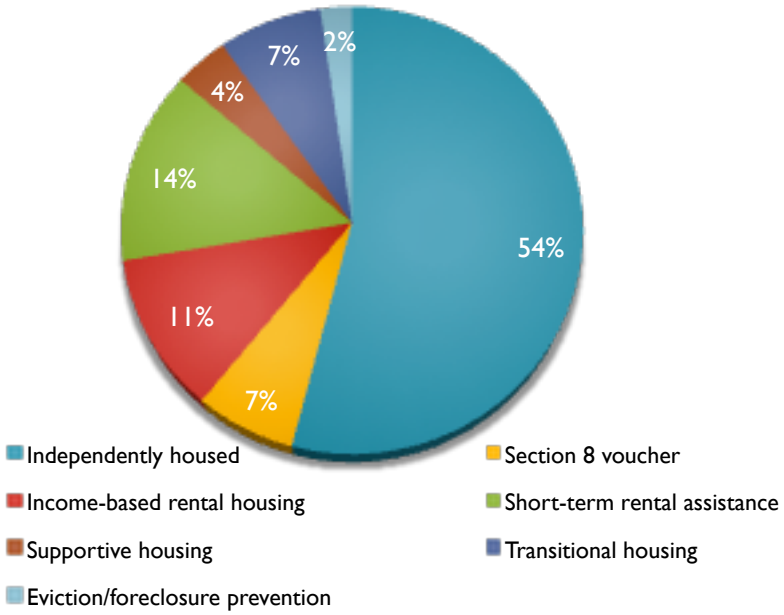
## Housing Outcomes

Navigators document an *extremely diverse* range of housing outcomes. Successful completion of the housing pathway may entail a supportive housing placement (4%), a Section 8 voucher (7%), unsubsidized housing that the client can afford (54%), or resolution of a conflict that enables the client to stay in their current home (2%). Over half of housing

pathways are completed when the client rents an unsubsidized, market rate apartment. Figure 5 depicts the final housing status of housing pathway completers.

Exit interviews were conducted with 21 housing pathway clients; 13 exit interviewees had completed the housing pathway. Eighty four percent of the 13 clients who took the exit survey and completed the housing pathway characterized their health as "greatly improved" or "improved," compared to 76 percent of exit interviewees who had not attempted the housing pathway.

Figure 5: Housing pathway completers by final housing status




# Housing Pathway Healthcare Savings

Completion of the housing pathway is estimated to have produced between $555,500 and $925,833 in healthcare cost savings. Subtracting Pathways program costs from total benefits yields net cost savings of between $99,170 and $469,503 and a benefit-to-cost ratio of 1.2 to 2.0.

## Return on Investment Methodology

The return on investment in the housing pathway is estimated by searching the academic and grey literature for high quality evaluations and research studies that estimate the impact on healthcare and health outcomes of housing programs similar to those that Pathways navigators connect their clients to and using the average effect on client health-related outcomes reported in those studies to estimate the likely impact of completing the housing pathways.

An extensive body of research documents the many ways housing impacts health. Housing interventions for populations at high risk of homelessness have been shown to improve health outcomes while at the same time reducing public sector costs.[71] [72] [73] [74] To date, studies that monetize the health benefits of housing assistance have focused almost exclusively on supportive housing, which typically combines independent, affordable housing with intensive case management services.[75] Large net benefits to recipients and society of other housing supports, such as the

Section 8 voucher program, have been documented in the literature, but the health benefits have been monetized only once.[76] Still harder to quantify are the health benefits that arise when housing-insecure people obtain permanent housing with minimal or no government subsidy, as appears to be the case for the majority of housing pathway completers.

**Table 4: Derivation of healthcare cost savings estimate**

| Derivation of healthcare cost savings estimate | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Individuals | | | Families | | | Total |
| Housing type | Permanent | Temporary | None | Permanent | Temporary | None | |
| Number of households | 39 | 39 | 99 | 37 | 37 | 95 | 346 |
| Monthly healthcare cost | | | | | | | |
| Homeless Adult | $2,027 | $2,027 | $2,027 | $1,062 | $1,062 | $1,062 | |
| Homeless Children* | | | | $701 | $701 | $701 | |
| Household (HH) | $2,027 | $2,027 | $2,027 | $1,763 | $1,763 | $1,763 | |
| Monthly household cost savings from housing | | | | | | | |
| Low=15% | $304 | $304 | $304 | $264 | $264 | $264 | |
| High=25% | $507 | $507 | $507 | $441 | $441 | $441 | |
| Months of cost savings | 12 | 6 | 3 | 12 | 6 | 3 | |
| Annual cost savings from housing | | | | | | | |
| Household | $3,648 | $1,824 | $912 | $3,174 | $1,587 | $793 | |
| Household | $6,081 | $3,040 | $1,520 | $5,290 | $2,645 | $1,322 | |
| Total (Low=15%) | $141,639 | $70,820 | $90,134 | $118,382 | $59,191 | $75,334 | $555,500 |
| Total (High=25%) | $236,065 | $118,033 | $150,223 | $197,304 | $98,652 | $125,557 | $925,833 |

*Assumes 2 children per household ($350/child/month)

Due to the lack of intervention-specific effect sizes, the estimated benefits of Section 8 vouchers and other permanent and subsidized, but not necessarily "supportive," housing programs presented in this report are based on relationships quantified in the supportive housing literature. Lending credibility to this approach is the fact that, like the case management component of supportive housing, Pathways navigation simultaneously addresses a number of factors that impact health and wellbeing, albeit on a more limited scale and for a shorter period of time.

Three-hundred-forty-six clients have completed the housing pathway since the Pathways program's inception and 22 percent (39 single adults and 37 single parents) have been placed in permanent subsidized housing through their participation in Pathways. Another 22 percent received temporary rental assistance, and 56 percent (99 individuals and 95 families) received no direct housing subsidy.[f]

The estimate of healthcare cost savings attributable to completion of the housing pathway relies on a number of assumptions. First, it is assumed that healthcare cost savings are proportional to the length of housing assistance. The 22 percent of housing pathway completions that result in permanent subsidized housing are assumed to generate a full year of healthcare cost savings; temporary rental assistance, including rapid rehousing, is assumed to generate six months of healthcare cost savings; and independent housing (including eviction prevention) generates three months of healthcare cost savings. As noted earlier, the independent housing arrangements made by many Pathways participants are so financially precarious that they seem unlikely to produce the long-term stability necessary to generate lasting healthcare cost savings (see page 7).

Monthly per-capita healthcare costs for housing pathway clients are assumed to average $2,027 for single men and women, $1,062 for parents, and $350 per dependent child. Per-capita healthcare costs for adults are estimated by multiplying the FY 2016 annual cost per adult enrolled in New Mexico Medicaid managed care through the expansion ($6,250)[77] by coefficients derived from

[f] Some may have received assistance paying deposits or move-in expenses, but none received rent subsidies.

research comparing healthcare costs for insured homeless single men, single women, and parents to insured low income members of the same demographic groups (see page 3). Per-capita healthcare costs for children are based on average per capita expenditures for Medicaid enrollees ages birth to 18.[78] The estimate assumes that the dependent children of parents who obtain housing have healthcare cost reductions proportional to their parent's.[g]

### Results

Based on the results of several studies documenting the impact of supportive housing on healthcare costs.[79] [80] We assume that permanent subsidized housing reduces healthcare costs by 15 to 25 percent,[h] yielding cost savings of $555,500 to $925,833. Table 5 depicts derivation of the cost savings estimate.

The Pathways program spends an average of $1,600 per client, or roughly $530 per pathway for clients who complete three pathways. The estimated cost to Pathways of 346 completed housing pathways is assumed to be $456,330, the cost of all 861 housing Pathways attempted.[i]

Subtracting total benefits from total costs yields net savings ranging from $99,170 to $469,503 and a benefit-to-cost ratio of 1.2 to 2.0. It is worth noting that if all housing completers were placed in permanent subsidized housing, net benefits would be $725,584 to $1.5 million, over twice their current level. The shortage of truly affordable, permanent housing therefore costs New Mexicans up to $2 million in additional healthcare costs for just this subset of the Pathways population, a tiny fraction of state residents with unmet housing need.

## Other Benefits

Return on investment in housing is difficult to measure because cost savings from housing interventions are often distributed across a variety of disparate entities, many of which were not involved in, or even aware of, the initial investment.[81] Most housing interventions are not spearheaded by healthcare agencies and the health benefits of stable housing are a significant but often relatively small fraction of overall societal benefits. In cost benefit analyses of supportive housing programs, health costs ranged from less than 5 percent[82] to 75 percent[83] of total savings.

An investment by the county in constructing and managing a supportive housing may generate cost savings for entities including, but not limited to:

1. City and county emergency response systems
2. Public and private hospital emergency departments
3. City and county law enforcement
4. County jail
5. Medicaid (state and federal funds)
6. Medicare (federal funds)
7. Emergency shelters
8. Child protective and foster care systems
9. Homeowners and business owners who benefit from reduced vagrancy and crime in the community
10. Community organizations

---

[g] All parents living with their dependent children in the sample appear to be single females

[h] Although the supportive housing literature documents a broad range of healthcare cost impacts, researchers at the Center for Healthcare Strategies recommend assuming a reasonable but conservative 15 to 20 percent cost reduction when forecasting the benefits and costs of Medicaid-financed supportive housing (See: Nardone, M., Cho, R. and Moses, K. (2012). *Medicaid-Financed Services in Supportive Housing for High-Need Homeless Beneficiaries: The Business Case*. Center for Health Care Strategies and the Corporation for Supportive Housing.)

[i] 861*$530

*"Providing decent housing means helping homeless persons obtain appropriate housing and assisting those at risk of homelessness; preserving the affordable housing stock; increasing availability of permanent housing that is affordable to low- and moderate income persons without discrimination; and increasing the supply of supportive housing."*

*State of New Mexico Five-Year Consolidated Plan for Housing and Community Development October 15, 2014*

## Solutions

Bernalillo County and the City of Albuquerque can do much to increase access to affordable housing for vulnerable populations:

- Increase the supply of high quality affordable housing in neighborhoods throughout the community by:
    - Financing the construction of new multifamily housing
    - Financing the acquisition and rehabilitation of multifamily rental housing
- Fund community organizations that provide housing and related services for individuals and families at risk of homelessness
- Fund community organizations that assist victims of domestic violence to provide longer term housing assistance
- Connect inmates to housing resources prior to their release from jail
- Directly re-invest public sector savings from housing interventions in more and better housing programs

## Conclusion

Housing is one of the most fundamental pathways. Physical and emotional health are almost impossible to sustain in the absence of stable housing. The complex, disjointed, and woefully inadequate nature of Bernalillo County's housing safety net makes navigation especially critical for people facing multiple complex challenges. The diverse array of outcomes achieved by clients who complete housing pathway reflects, to some degree, the diversity of the Pathways clientele; but the fact that only a small percentage of clients obtain permanent, truly affordable housing speaks to the grave housing shortage confronting Bernalillo County. Pathways navigators generate meaningful return on investment in the housing pathway, but it is a tiny fraction of what could be accomplished if this critical resource were made available to the thousands of Bernalillo County residents in need.

---

[1] Albuquerque Health Care for the Homeless. *Phase I Needs Assessment. January 2014-June 2014* and
St, Martins Hospitality Center http://www.smhc-nm.org/how-you-can-help/understanding-homelessness/
St, Martins Hospitality Center http://www.smhc-nm.org/how-you-can-help/understanding-homelessness/
[2] Albuquerque Health Care for the Homeless. *Phase I Needs Assessment January 2014-June 2014*
[3] National Alliance to End Homelessness. *The Cost of Homelessness*. Retrieved from:
http://www.endhomelessness.org/pages/cost_of_homelessness
[4] Salit S.A., Kuhn E.M., Hartz A.J., Vu J.M., Mosso A.L. (1998) *Hospitalization costs associated with homelessness in New York City*. New England Journal of Medicine; 338: 1734-1740.
[5] Hwang S.W., Henderson M.J., (2010) *Health Care Utilization in Homeless People: Translating Research into Policy and Practice*. Agency for Healthcare Research and Quality Working Paper No. 10002. Retrieved from http://gold.ahrq.gov.
[6] Massachusetts Housing and Shelter Alliance. (2007). Home and Healthy for Good: A Statewide Pilot Housing First Program.
[7] Grant, R., Gracy, D., Goldsmith, G., Shapiro, A., & Redlener, I. E. (2013). Twenty-Five Years of Child and Family Homelessness: Where Are We Now? American Journal of Public Health, 103(Suppl 2), e1–e10. Retrieved from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3969115/

[8] The National Center on Family Homelessness. (1999). *Homeless children: America's new outcasts*. Newton, MA: The National Center on Family Homelessness
[9] The National Center on Family Homelessness. (1999). *Homeless children: America's new outcasts.* Newton, MA: The National Center on Family Homelessness
[10] The National Center on Family Homelessness (1999). *Homeless* children: America's new outcasts. Newton, MA: The National Center on Family Homelessness
[11] The National Center on Family Homelessness (1999). *Homeless* children: America's new outcasts. Newton, MA: The National Center on Family Homelessness
[12] The National Center on Family Homelessness (1999). *Homeless* children: America's new outcasts. Newton, MA: The National Center on Family Homelessness
[13] White, B. and Newman, S.D. (2015), *Access to Primary Care Services Among the Homeless: A Synthesis of the Literature Using the Equity of Access to Medical Care Framework.* Journal of Primary Care & Community Health April 6: 77-87.
[14] Weinreb, L.F. et al. (1998). *The health characteristics and service use patterns of sheltered homeless and low-income housed* mothers. Journal of General Internal Medicine. 13(1): 389-397.
[15] Sandel, M, Sheward, R, and Sturtevant, S. (2015). Compounding Stress: The Timing and Duration Effects of Homelessness on Children's Health. Washington, D.C.: National Housing Conference.
[16] National Alliance to End Homelessness. http://www.endhomelessness.org
[17] The National Center on Family Homelessness. (2011). The Characteristics and Needs of Families Experiencing *Homelessness.* American Institutes for Research. Retrieved from: http://www.air.org/center/national-center-family-homelessness
[18] Pettit, M.R. et al. (1997). *Child Abuse and Neglect: A Look at the States*. Washington D.C.: Children's Welfare League of America Press
[19] Doerre, Y.A. et al. (1996). *Home Sweet Home*. Washington, DC: Children's Welfare League of America Press.
[20] Anderson L.M., St. Charles J., and Fullilove. M.T. (2003). *Providing affordable family housing and reducing residential segregation by income.* American Journal of Preventive Medicine. 24(3S):47–67.
[21] National Coalition for the Homeless. *Homelessness in America*. Retrieved from: http://nationalhomeless.org/about-homelessness/
[22] Clough, A., Draughon, J., Njie-Carr, V., Rollins, C. and Glass, N.. (2013). *Having Housing Made Everything Else Possible': Affordable, Safe and Stable Housing for Women Survivors of Violence*. Qualitative Social Work 13 (5): 671–688.
[23] National Alliance to End Homelessness. *Re-Entry*. Retrieved from: http://www.endhomelessness.org/pages/re_entry
[24] The Council of State Governments, Justice Center, National Reentry Resource Center. *What Works in Reentry Clearinghouse: Housing*., Retrieved from: http://whatworks.csgjusticecenter.org/focus_areas/housing.
[25] Shah, M.F., Black, C., Felver, B. (2013) *Housing and Medical Assistance as Keys to Reduced Recidivism and Improved Employment Outcomes*. Achieving Successful Community Re-Entry upon Release from Prison. Number 11.193 Washington State Department of Commerce, Community Services and Housing Division.
[26] Miller, M. and Ngugi, I. (2009). *Impacts of housing supports: Persons with mental illness and ex-offenders*. Olympia: Washington State Institute for Public Policy, Document No. 09-11-1901
[27] United States Office of National Drug Control Policy. Retrieved from: https://www.whitehouse.gov/ondcp/chapter-integrate-treatment-for-substance-use-disorders
[28] Lavin T, Higgins C, Metcalfe O, Jordan A. (2006). *Health impacts of the built environment: A review*. Dublin, IRL: Institute of Public Health in Ireland.
[29] Children's Health Watch (2011) *Behind Closed Doors: The Hidden Health Impact of Being Behind on Rent*. Retrieved from: http://www.childrenshealthwatch.org/upload/resource/behindcloseddoors_report_jan11.pdf
[30] Children's Health Watch (2011) *Behind Closed Doors: The Hidden Health Impact of Being Behind on Rent*. Retrieved from: http://www.childrenshealthwatch.org/upload/resource/behindcloseddoors_report_jan11.pdf
[31] U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates
[32] Joint Center for Housing Studies of Harvard University (2013). *America's Rental Housing: Evolving Markets and Needs.* p. 32. Retrieved from: http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/jchs_americas_rental_housing_2013_1_0.pdf.
[33] Children's Health Watch (2011) *Behind Closed Doors: The Hidden Health Impact of Being Behind on Rent*. Retrieved from: http://www.childrenshealthwatch.org/upload/resource/behindcloseddoors_report_jan11.pdf
[34] Pickett, K.E.1., Pearl, M. (2001). *Multilevel analyses of neighbourhood socioeconomic context and health outcomes: a critical review*. J Epidemiol Community Health. Feb;55(2):111-22.
[35] Compton, M.T., and Shim, R.S. (2015).The Social Determinants of Mental Health. Arlington, Va: American Psychiatric Publishing.
[36] Chow JC, Johnson MA, Austin MJ. (2005). The status of low-income neighborhoods in the post-welfare reform environment: mapping the relationship between poverty and place. J Health Soc Policy.21(1):1-32. PubMed PMID: 16418126.
[37] Klebanov, P., Brooks-Gunn, J., & Duncan, G. (1994). Does Neighborhood and Family Poverty Affect Mothers' Parenting, Mental Health, and Social Support? Journal of Marriage and Family, 56(2), 441-455. doi:1. Retrieved from http://www.jstor.org/stable/353111

[38] Earls, Felton and Mary Carlson. (2001). "The Social Ecology of Child Health and Well-being." *Annual Review of Public Health* 22:143-66.
[39] Lavin, T., Higgins, C., Metcalfe, O., Jordan, A. (2006). *Health impacts of the built environment: A review*. Dublin, IRL: Institute of Public Health in Ireland.
Cubbin C., and Winkleby, M.A. (2005) *Protective and harmful effects of neighborhood-level deprivation on individual-level health knowledge, behavior changes, and risk of coronary heart disease.* American Journal of Epidemiology. 162 (6):559-68.
[40] Moulton et al. (2014) *Moving to Opportunity's Impact on Health and Well-Being Among High-Dosage Participants.* Housing Policy Debate. Vol 24, No. 2.
[41] Gibson, M,, Petticrew, M, Bambra, C., Sowden, A. J., Wright, K,E., and Whitehead, M. (2011). *Housing and health inequalities: A synthesis of systematic reviews of interventions aimed at different pathways linking housing and health.* Health & Place. Volume 17, Issue 1, Pages 175–184. Health Geographies of Voluntarism.

[43] Bailey, K.T., et al (2015): *Development of an Index of Subsidized Housing Availability and its Relationship to Housing Insecurity*. Housing Policy Debate, DOI: 10.1080/10511482.2015.1015042
[44] Sanbonmatsu L., Ludwig J, Katz LF, Gennetian LA, Duncan GJ, Kessler R.C., Adam E., McDade T.W., Lindau S.T. (2011) *Moving to Opportunity for Fair Housing Demonstration Program -- Final Impacts Evaluation.* US Department of Housing and Urban Development. P.D.&R. Retrieved from: http://scholar.harvard.edu/lkatz/publications/moving-opportunity-fair-housing-demonstration-program-final-impacts-evaluation
[45] Meyers A., Cutts, D., Frank D.A., et al. (2005) Subsidized housing and children's nutritional status: data from a multisite surveillance study. Arch Pediatr Adolesc Med. 159(6):551–556.
[46] Carlson, D., Haveman, R., Kaplan, T. and Wolfe, B. (2009). Long-Term Effects of Public Low-Income Housing Vouchers on Neighborhood Quality, Labor Market, and Social Outcomes. Working paper. Institute for Research on Poverty, University of Wisconsin-Madison.
[47] Carlson, D., Haveman, R., Kaplan, T., & Wolfe, B. (2011). The benefits and costs of the Section 8 *housing subsidy program: A framework and estimates of first year effects*. Journal of Policy Analysis and Management, 30(2), 233-255.
[48] Meyers A., Cutts, D., Frank D.A., et al. (2005) Subsidized housing and children's nutritional status: data from a multisite surveillance study. Arch Pediatr Adolesc Med. 159(6):551–556.
[49] Kling JR, Liebman JB, Katz LF. *Experimental analysis of neighborhood effects*. Econometrica 2007;75:83-119
[50] Acevedo-Garcia,D., Joshi, A., Ramirez, S., Rosenfeld, L., and Geronimo, K. Panel Paper: *The Health Impact of Subsidized Housing: A Systematic Review of the Section 8 Voucher Program.* https://appam.confex.com/appam/2012/webprogram/Paper3466.html.
[51] Sanbonmatsu, Lisa et al. (2011). *Moving to Opportunity for fair housing demonstration program: final impacts evaluation*. National Bureau of Economic Research.
[52] Ludwig, J., Sanbonmatsu, L., Gennetian, L., Adam, E., Duncan, GJ., Katz, LF., Kessler, R.C., Kling, JR.,Tessler, S., Lindau, S., Whitaker, and McDade, TW (2011).*Neighborhoods, Obesity, and Diabetes — A Randomized Social Experiment*. N Engl J Med 2011; 365:1509-1519October 20, 2011DOI: 10.1056/NEJMsa1103216
[53] Ludwig, J., Sanbonmatsu, L., Gennetian, L., Adam, E., Duncan, GJ., Katz, LF., Kessler, R.C., Kling, JR.,Tessler, S., Lindau, S., Whitaker, and McDade, TW (2011).*Neighborhoods, Obesity, and Diabetes — A Randomized Social Experiment*. N Engl J Med 2011; 365:1509-1519October 20, 2011DOI: 10.1056/NEJMsa1103216
[54] Acevedo-Garcia,D., Joshi, A., Ramirez, S., Rosenfeld, L., and Geronimo, K. Panel Paper: The Health Impact of Subsidized Housing: A Systematic Review of the Section 8 Voucher Program. https://appam.confex.com/appam/2012/webprogram/Paper3466.html.
[55] Baker, M., Zhang, J., & Howden-Chapman, P. (2010). *Health impacts of social housing: Hospitalisations in housing New Zealand applicants and tenants,* 2003-2008. Wellington, New Zealand: He Kainga Oranga, Housing and Health Research Programme: University of Otago. Retrieved from http://www.healthyhousing.org.nz/wp-content/uploads/2010/07/Microsoft-Word-Health-Impacts-of-Social-Housing-June-2010-FINAL1.pdf
[56] Sard, B., & Rice, D. (2014). Creating Opportunity for Children: How Housing Location Can Make a Difference. Washington, D.C.: Center on Budget and Policy Priorities. http://www.cbpp.org/research/creating-opportunity-for-children.
[57] Rinzler, D, Tegeler, P., Cunningham, M., Pollack,C. (2015) *Leveraging the Power of Place: Using Pay for Success to Support Housing Mobility*. Working Paper 2015-04. Center for Community Development Investments. Federal Reserve Bank of San Francisco. www.frbsf.org/community-development
[58] New Mexico Behavioral Health Collaborative (2013) *New Mexico Supportive Housing Programs and Resources* retrieved from: http://www.bhc.state.nm.us/pdf/NM%20Supportive%20Housing%20Resources_5.2013.pdf
[59] New Mexico Behavioral Health Collaborative (2013) *Section 8 Housing Vouchers Waiting Lists, Preferences and Programs for New Mexico Public Housing Authorities*. Retrieved from: http://www.bhc.state.nm.us/pdf/NM%20Housing%20Auth%20%20Sec%208%20Waiting%20ListsPref_%20July%202013.pdf.
[60] Albuquerque Housing Authority. http://www.abqha.org/rental-assistance.aspx

[61] Guerin, P. (2011). *City of Albuquerque Housing First Cost Study Final Report*. University of New Mexico Institute for Social Research. Retrieved from: http://www.abqheadinghome.org/wp-content/uploads/CABQ_HousingFirstCostStudy_OneYear_FinalReport_Finalv3_062011.pdf.
[62] Martinez, T. an d Burt, M. (2006). *Impact of permanent supportive housing on the use of acute care services by homeless adults.* Psychiatric Services, 57, 992-999.
[63] Larimer, M.E., Malone, D.K., Garner, M.D., et al. (2009). *Health care and public service use and costs before and after provision of housing for chronically homeless persons with severe alcohol problems*. The Journal of the American Medical Association, 301(13), 1349-1357.
[64] Martinez, T. & Burt, M. (2006). *Impact of permanent supportive housing on the use of acute care services by homeless adults.* Psychiatric Services, 57, 992-999.
[65] Larimer, M.E., Malone, D.K., Garner, M.D., et al. (2009). Health care and public service use and costs before and after provision of housing for chronically homeless persons with severe alcohol problems. The Journal of the American Medical Association, 301(13), 1349-1357.
[66] Clough, A., Draughon, J.E., Njie-Carr, V., Rollins, C., Nancy Glass, N. 'Having housing made everything else possible': Affordable, safe and stable housing for women survivors of violence Qualitative Social Work September 2014 13: 671-688
[67] Perlman, J. and Parvensky, J. 2006. Denver Housing First Collaborative Cost Benefit Analysis and Program Outcomes Report. Colorado Coalition for the Homeless. Retrieved from: http://shnny.org/research/denver-housing-first-collaborative/.
[68] J. O'Connell and S. Swain. (2005). Rough Sleepers: A Five Year Prospective Study in Boston, 1999-2003. Presentation, Tenth Annual Ending Homelessness Conference, Massachusetts Housing and Shelter Alliance, Waltham, MA.
[69] M. Larimer, D. Malone, M. Garner, et al. (2009). Health Care and Public Service Use and Costs Before and After Provision of Housing for Chronically Homeless Persons with Severe Alcohol Problems. Journal of the American Medical Association, pp. 1349-1357.
[70] Gubits, D. et al. (2015). *Family Options Study: Short-term Impacts of Housing and Services Interventions for Homeless Families*. Department of Housing and Urban Development. Retrieved from: https://www.huduser.gov/portal/portal/sites/default/files/pdf/FamilyOptionsStudy_final.pdf
[71] Hwang SW, Burns T. Health interventions for people who are homeless. (2014). Lancet. Oct 25;384(9953):1541-7. doi: 10.1016/S0140-6736(14)61133-8.
[72] L.C. Weinstein, M.D. LaNoue, J.D. Plumb, H. King, B. Stein and S. Tsemberis. "A Primary Care-Public Health Partnership Addressing Homelessness, Serious Mental Illness, and Health Disparities." Journal of the American Board of Family Medicine. 26, no. 3 (2013): 279-87. http://www.ncbi.nlm.nih.gov/pubmed/23657696
[73] C. Thomas-Henkel, T. Hendricks, and K. Church. Opportunities to Improve Models of Care for People with Complex Needs: Literature Review. The Robert Wood Johnson Foundation and the Center for Health Care Strategies, November 2015 http://www.chcs.org/media/HNHC_CHCS_LitReview_Final.pdf
[74] Fitzpatrick-Lewis D, Ganann R, Krishnaratne S, Ciliska D, Kouyoumdjian F, Hwang SW. (2011). Effectiveness of interventions to improve the health and housing status of homeless people: a rapid systematic review. BMC Public Health. Aug10;11:638. doi: 10.1186/1471-2458-11-638.
[75] Ault, M., Viveiros, J. and Maqbool, N. (2015). The Impacts of Affordable Housing on Health: A Research Summary. Washington, DC: National Housing Conference.
[76] Haveman, R, Carlson, D., Wolfe, B., Kaplan, T. (2009) The Benefits and Costs of the Section 8 Housing Subsidy Program: A Framework and First-Year Estimates. La Follette School Working Papers. Accessed on March 1, 2016 at http://digital.library.wisc.edu/1793/38149
[77] Reynis, L.A. Economic and Fiscal Impacts of the Medicaid Expansion in New Mexico. (2016). University of New Mexico Bureau of Business and Economic Research. Retrieved from: http://nmpovertylaw.org/wp-content/uploads/2016/02/Report-UNM-BBER-Medicaid-Economic-and-Fiscal-Impacts-2016-02-03.pdf.
[78] The Kaiser Family Foundation State Health Facts. Kaiser Commission on Medicaid and the Uninsured and Urban Institute estimates based on data from FY 2011 MSIS and CMS-64 reports
[79] Nardone, M., Cho, R. and Moses, K (2012).Medicaid-Financed Services in Supportive Housing for High-Need Homeless Beneficiaries: The Business Case. Center for Health Care Strategies, Inc.. Retrieved from: http://www.csh.org/wp-content/uploads/2012/06/SH-Medicaid-Bz-Case_Final.pdf
[80] Miller, M. and Ngugi, I. (2009). Impacts of housing supports: Persons with mental illness and ex-offenders. Olympia: Washington State Institute for Public Policy, Document No. 09-11-1901. Retrieved from: http://www.wsipp.wa.gov/ReportFile/1055/Wsipp_Impacts-of-Housing-Supports-Persons-with-Mental-Illness-and-Ex-Offenders_Full-Report.pdf
[81] Komisar, H.L. and Feder, J. (2011).*Transforming Care for Medicare Beneficiaries with Chronic Conditions and Long-Term Care Needs: Coordination Care Across All Services.* Georgetown University.
[82] Carlson, D., Haveman, R., Kaplan, T., & Wolfe, B. (2011). *The benefits and costs of the Section 8 housing subsidy program: A framework and estimates of first year effects.* Journal of Policy Analysis and Management, 30(2), 233-255.
[83] Flaming, D. et al (2009). *Where We Sleep: Costs When Homeless and Housed in Los Angeles*. Los Angeles, CA: Economic Roundatable.