



# Health/Life Expectancy & Housing

RESEARCH COMPLETED IN APRIL 2019, IN PARTNERSHIP WITH



REINVESTMENT  
FUND

## STATE OF THE RESEARCH

There is a considerable amount of research examining the influence of housing and neighborhoods on the health of individuals and communities. Much of the existing research examines the negative impacts of substandard housing and/or neighborhood environmental factors on a wide array of individual health measures and outcomes. Substandard and hazardous housing contribute to negative influences on measures of individual health and, in areas with widespread housing challenges, can contribute to a decline in life expectancy.





## BACKGROUND

A number of studies have examined the negative impact of housing instability, substandard housing, and dangerous neighborhoods on the health of individuals. The research has generally found that there is a strong connection between housing quality, neighborhood safety, and health across one's life. Fewer studies have examined the relationship between housing affordability and health; nevertheless, recent observational studies appear to support theories that draw a relationship between health and housing affordability.

## SUMMARY OF RESEARCH FINDINGS

Research draws four general connections between housing and/or neighborhoods and health:

- 1. Housing stability:** Individuals experiencing chronic homelessness are far more likely to have physical or mental illness and have lower life expectancies; however, causal relationships between homelessness and health are not necessarily unidirectional.
- 2. Housing quality and safety:** Elevated levels of environmental contaminants such as lead, asbestos, contaminated water supply, as well as other factors such as insufficient weatherization contribute to a range of respiratory, cardiovascular, and nervous system ailments. These challenges can be particularly pernicious when realized by children living in these home environments.
- 3. Housing affordability:** Families who experience challenges with housing costs may forego medical treatments, sacrifice health, and substitute food and/or energy expenditures to meet housing payments. These difficult choices can contribute to diminished health outcomes relative to similar families not experiencing cost burdens.
- 4. Neighborhood conditions:** Neighborhood environmental conditions and hazards, residential vacancy, pollution from transportation corridors, crime rates, and access (or lack of access) to healthy food, clinics, and parks have all been found to influence health of residents.

Any of the above conditions may directly influence the quality of life, measures of health, and life expectancy of individuals. Few studies directly examine health outcomes of renters relative to homeowners; rather, it is often identified that homeownership is correlated with any number of other factors that are often tied to health.

## RECENT STUDIES HAVE FOUND:

- Secure and stable housing is essential for good physical and mental health.
- Conditions within the home that contribute to adverse health outcomes are generally known and preventable.
- Cost-burdened households often prioritize immediate housing expenditures over expenses that support long-term health.
- Aging households may have a need for safety and accessibility features that would enable individuals to age in place and reduce short-term medical costs.
- Neighborhood safety and environmental conditions strongly influence the mental and physical health of residents.



## HEALTH/LIFE EXPECTANCY — SUMMARY OF KEY STUDIES

Fazel, S., Geddes, J. R., & Kushel, M. (2014). The health of homeless people in high-income countries: descriptive epidemiology, health consequences, and clinical and policy recommendations. *The Lancet*, 384(9953), 1529-1540.

<b>STUDY FOCUS</b>	An examination and synthesis of research relating to the categorization, causes, and consequences of homelessness in the United States and Europe.
<b>METHODOLOGY</b>	A wide-ranging review and synthesis peer reviewed medical journals between 2003 and 2013 that addressed the relationship between several measures of health and homelessness.
<b>SUMMARY OF FINDINGS</b>	<p>The causes of homelessness are a complex interaction between individual and structural factors; the absence of low-cost housing is recognized as a preeminent structural contributor to homelessness.</p> <p>Individuals experiencing homelessness have diminished physical and mental health outcomes relative to the broader population across several dimensions of health and wellbeing, including physical and psychiatric health conditions, infectious diseases, and chronic diseases. Homeless individuals have higher rates of mortality as well. The more frequently a person experiences homelessness, the greater the adverse effects upon health generally are.</p> <p>There is not a single-direction relationship between homelessness in health; in some cases health issues may precede homelessness and in other cases homelessness may cause health issues to manifest; nevertheless, when individuals experience health issues prior to becoming homeless, these health issues generally worsen after a person becomes homeless.</p> <p>Many homeless individuals do not regularly receive health treatment outside of emergency care, which contributes to higher overall health care costs and can extend the time required for recovery.</p>
<b>IMPLICATIONS FOR PRACTITIONERS</b>	<p>A comprehensive approach to research, health, and public policy is necessary to address the causes and consequences of homelessness. Within the healthcare environment, particular attention will need to be paid toward addressing infectious disease, mental illness, and chronic conditions; further, environmental conditions should be considered in health care provision.</p> <p>Policies that promote access to housing and addressing environmental issues are also key in improving health outcomes among those at risk of being homeless. Particularly, focusing on periods of transition in which individuals are at risk of becoming homeless and ensuring housing availability for rapid rehousing into stable situations are critical.</p>



**Aubry, T., Nelson, G., & Tsemberis, S. (2015). Housing first for people with severe mental illness who are homeless: a review of the research and findings from the at home—chez soi demonstration project. *The Canadian Journal of Psychiatry*, 60(11), 467-474.**

<b>STUDY FOCUS</b>	A comprehensive literature review of Housing First (HF) research combined with the presentation of findings from a randomized controlled trial of a HF program, meant to address homelessness, across five Canadian cities.
<b>METHODOLOGY</b>	Researchers used mixed methods of data collection — both quantitative and qualitative — to evaluate outcomes associated with the At Home-Chez soi (AH-CS) demonstration project, which used a randomized controlled trial to provide HF assistance relative to a control group across five Canadian cities.
<b>SUMMARY OF FINDINGS</b>	<p>The HF model has four basic principles: 1) immediate provision of housing and services; 2) separation of housing and clinical services; 3) supports and treatment oriented toward recovery; and 4) facilitation of community integration.</p> <p>The AH-CS demonstration project found that HF models were successful and adaptable to different environments. Individuals receiving HF rather than traditional supports were more likely to exit homelessness, achieve higher community integration, report higher quality of life, and develop positive social and supportive relationships.</p>
<b>IMPLICATIONS FOR PRACTITIONERS</b>	HF may represent a positive and adaptable approach to addressing challenges associated with the chronically homeless, especially among those with severe mental illness. The approach's emphasis on autonomy while providing housing supports appears to yield greater benefits than traditional treatments of homelessness. Nevertheless, the authors caution that it may be necessary to retain other supportive housing programs for those who are not successful in leaving homelessness through HF.

**Jacob, B. A., Ludwig, J., & Miller, D. L. (2013). The effects of housing and neighborhood conditions on child mortality. *Journal of health economics*, 32(1), 195-206.**

<b>STUDY FOCUS</b>	An estimation on the degree to which moving into less distressed neighborhood environments — specifically, those with less crime and more economic opportunity — influences child mortality.
<b>METHODOLOGY</b>	Researchers match mortality data from 1997 to 2009 with data on children of families who applied for a housing voucher when Chicago opened its voucher wait list in 1997. The families receiving housing vouchers were provided the opportunity to move to more affluent, amenity-rich neighborhood environments. Some families were randomly awarded vouchers while others were not, providing a treatment and control group between which comparisons could be drawn.



<b>SUMMARY OF FINDINGS</b>	Moving from high-poverty public housing projects to higher opportunity neighborhoods resulted in substantial declines in mortality rates for female children and youth; however, there was no such finding for male youth.
<b>IMPLICATIONS FOR PRACTITIONERS</b>	The authors state that their findings have a wide range of housing-related implications, generally targeted at addressing concentrations of poverty within particular geographies. These solutions include addressing zoning rules, the siting of affordable housing projects, and decisions about whether to invest in housing projects or housing voucher programs. Further, the improvement of neighborhoods may have similar effects as those realized by moving individuals out of concentrated poverty, suggesting general community development is an essential effort in realizing widespread benefits. Finally, the study that concentrations of poverty influence individual health outcomes in addition to familial health and economic considerations.

**Eriksen, M. D., Greenhalgh-Stanley, N., & Engelhardt, G. V. (2015). Home safety, accessibility, and elderly health: Evidence from falls. *Journal of Urban Economics*, 87, 14-24.**

<b>STUDY FOCUS</b>	An estimation of the benefits of home safety and accessibility features on preventing falls among seniors.
<b>METHODOLOGY</b>	The authors evaluate the benefit to surviving widows of home safety and accessibility equipment installed for their deceased spouses. The authors argue the widows benefit, in terms of fall prevention, from this equipment. These benefits are assessed through a longitudinal dataset collected from the Health and Retirement Study. The authors measure responses of the surviving spouse's wellbeing physical in the years after widowhood, attributing ongoing ability to engage in activities of daily living as a benefit attributable to home safety and accessibility features.
<b>SUMMARY OF FINDINGS</b>	Living in a home with home safety and accessibility features was found to have a meaningful reduction in the likelihood of a fall requiring medical attention among surviving spouses. While women comprise the largest group of widowed spouses, men aged-75 and older were found to be the largest beneficiaries of prevented falls. There is some evidence that these home safety and accessibility features may reduce nursing home stays, but the research did not identify that the equipment had a meaningful impact on seniors' decisions to relocate away from their home.
<b>IMPLICATIONS FOR PRACTITIONERS</b>	There is research documenting a desire among many seniors to live independently and age in place. This study suggests modest investments in home safety and accessibility features can assist in preventing falls that might inhibit aging-in-place. While speculative in nature, the authors suggest that investments in these features can substantially reduce medical costs attributable to fewer falls. It remains unclear what types of safety features are the most meaningful in achieving this benefit.



## ADDITIONAL RECENT RESEARCH

South EC, Hohl BC, Kondo MC, MacDonald JM, Branas CC. Effect of greening vacant land on mental health: a citywide randomized controlled trial. *JAMA Network Open* 1(3), 1-14, 2018.

Branas CC, South E, Kondo MC, Hohl BC, Bourgois P, Wiebe DJ, MacDonald JM. A citywide cluster randomized trial to restore blighted vacant land and its effects on violence, crime and fear. *PNAS - Proceedings of the National Academy of Sciences* 115(8), 1-11, 2018.

C Taylor, L. A., Tan, A. X., Coyle, C. E., Ndumele, C., Rogan, E., Canavan, M., ... & Bradley, E. H. (2016). Leveraging the social determinants of health: what works?. *PLoS One*, 11(8), e0160217.

Sandel M, Sheward R, Ettinger de Cuba S, et al. Unstable Housing and Caregiver and Child Health in Renter Families. *Pediatrics*. 2018;141(2):e20172199

Taylor, L. A., Tan, A. X., Coyle, C. E., Ndumele, C., Rogan, E., Canavan, M., ... & Bradley, E. H. (2016). Leveraging the social determinants of health: what works?. *PLoS One*, 11(8), e0160217.

National Research Council, & Committee on Population. (2013). *US health in international perspective: Shorter lives, poorer health*. National Academies Press.

Wolf, S. H., & Braveman, P. (2011). Where health disparities begin: the role of social and economic determinants—and why current policies may make matters worse. *Health affairs*, 30(10), 1852-1859.

Braveman, P., Dekker, M., Egerter, S., Sadegh-Hobari, T., Pollack, C. (2011). *Exploring the Social Determinants of Health - Housing and Health*. Robert Wood Johnson Foundation issue brief. <https://www.rwjf.org/en/library/research/2011/05/housing-and-health.html>

National Research Council, & Committee on Population. (2013). *US health in international perspective: Shorter lives, poorer health*. National Academies Press.

Maqbool, N., Ault, M., & Viveiros, J. (2015). *The impacts of affordable housing on health: A research summary*. Center for Housing Policy.

Gibson, M., Petticrew, M., Bamba, C., Sowden, A. J., Wright, K. E., & Whitehead, M. (2011). Housing and health inequalities: a synthesis of systematic reviews of interventions aimed at different pathways linking housing and health. *Health & place*, 17(1), 175-184.

Taylor, L. "Housing And Health: An Overview Of The Literature," Health Affairs Health Policy Brief, June 7, 2018. <https://www.healthaffairs.org/doi/10.1377/hpb2018.0313.396577/full/>

Votruba, M. E., & Kling, J. R. (2009). Effects of neighborhood characteristics on the mortality of black male youth: Evidence from Gautreaux, Chicago. *Social Science & Medicine*, 68(5), 814-823.

Krieger, J., & Higgins, D. L. (2002). Housing and health: time again for public health action. *American journal of public health*, 92(5), 758-768.



## QUICK FACTS FROM 2017 AMERICAN HOUSING SURVEY ON THE RELATIONSHIP BETWEEN ECONOMIC WELLBEING AND HOUSING CONDITIONS<sup>1</sup>

NOTE: The data presented below were collected by the 2017 American Housing Survey (AHS). Numbers and percentages are generally based on the 121+ million occupied housing units estimated in the 2017 AHS. From indicator to indicator, there may be some variation in the total “valid” case base (i.e., cases in the “universe” for which there is complete data). All percentages are based on valid cases. AHS questions selected are indicative of physical conditions in housing units that are reasonably related to environmental impediments to health (e.g., mold, drafts, excessive cold) and physical hazards (e.g., crumbled foundation, cracks in floors large enough to cause one to trip, broken windows).

Health-Related Housing Condition	Number (000s)	Percentage
Foundation Crumbling	4,949	5.5%
Windows Boarded	1,060	1.2%
Windows Broken	3,912	4.3%
Holes in Floor	1,447	1.2%
Cracks in Walls	6,594	5.4%
Leaks from Outside	12,325	10.2%
Leaks from Inside	9,945	8.2%
Cold 24+ Hours Last Winter	6,988	6.2%
Mold	4,909	3.1%
No Adverse Conditions	87,764	72.4%
1-2 Adverse Conditions	39,290	24.2%
3+ Adverse Conditions	4,042	3.3%

<sup>1</sup>Homeownership and Income data come American Community Survey and Reinvestment Fund computations of ACS 1-Year PUMS samples - <https://www.census.gov/programs-surveys/acs/news/data-releases/2017/release.html>; Wealth data come from the Federal Reserve Survey of Consumer Finances - <https://www.federalreserve.gov/econres/scfindex.htm>



	No Issues	At Least 1 Issue
<b>All Units</b>	72.4%	27.5%
<b>Owner occupied</b>	73.5%	26.5%
<b>Renter occupied</b>	70.5%	29.5%
<b>Male householder</b>	73.8%	26.2%
<b>Female householder</b>	70.9%	29.1%
<b>Householder under 45</b>	70.5%	29.5%
<b>Householder 45-64</b>	71.0%	29.0%
<b>Householder 65+</b>	77.3%	22.7%
<b>White householder</b>	72.8%	27.2%
<b>Black householder</b>	69.5%	30.5%
<b>Other/multiple race householder</b>	73.5%	26.5%
<b>Hispanic householder</b>	72.2%	27.8%
<b>Not Hispanic householder</b>	72.4%	27.6%
<b>Disabled person in household</b>	64.2%	35.8%
<b>No disabled person in household</b>	74.6%	25.4%

	No Issues	At Least 1 Issue
<b>All Units</b>	72.4%	27.5%
<b>Family income under \$24,600</b>	69.7%	30.3%
<b>Family income \$24,601-\$51,000</b>	71.8%	28.2%
<b>Family income \$51,001-\$95,500</b>	73.1%	26.9%
<b>Family income \$95,501 and over</b>	75.1%	24.9%





	Family Income							
	under \$24,600		\$24,601-\$51,000		\$51,001-\$95,500		\$95,501 and over	
	No Issues	At Least 1 Issue	No Issues	At Least 1 Issue	No Issues	At Least 1 Issue	No Issues	At Least 1 Issue
<b>All Units</b>	69.7%	30.3%	71.8%	28.2%	73.1%	26.9%	75.1%	24.9%
<b>Householder under 45</b>	65.7%	34.3%	69.1%	30.9%	72.0%	28.0%	74.8%	25.2%
<b>Householder 45-64</b>	63.2%	36.8%	70.5%	29.5%	72.5%	27.5%	74.9%	25.1%
<b>Householder 65+</b>	78.6%	21.4%	76.9%	23.1%	76.0%	24.0%	76.5%	23.5%
<b>Owner occupied</b>	71.2%	28.8%	71.9%	28.1%	73.7%	26.3%	75.5%	24.5%
<b>Renter occupied</b>	68.6%	31.4%	71.7%	28.3%	71.5%	28.5%	72.7%	27.3%
<b>Male householder</b>	71.1%	28.9%	73.4%	26.6%	74.1%	25.9%	75.6%	24.4%
<b>Female householder</b>	68.8%	31.2%	70.2%	29.8%	71.7%	28.3%	74.3%	25.7%
<b>White householder</b>	70.9%	29.1%	72.3%	27.7%	73.2%	26.8%	74.6%	25.4%
<b>Black householder</b>	66.3%	33.7%	69.6%	30.4%	70.3%	29.7%	76.4%	23.6%
<b>Other/Multi race householder</b>	67.5%	32.5%	70.8%	29.2%	75.8%	24.2%	78.4%	21.6%
<b>Hispanic householder</b>	67.6%	32.4%	72.1%	27.9%	73.5%	26.5%	75.8%	24.2%
<b>Not Hispanic householder</b>	67.7%	32.3%	70.4%	29.6%	73.2%	26.8%	75.3%	24.7%
<b>Disabled householder</b>	63.7%	36.3%	63.7%	36.3%	63.3%	36.7%	68.0%	32.0%
<b>Not disabled householder</b>	72.7%	27.3%	74.2%	25.8%	75.2%	24.8%	75.9%	24.1%