Housing Interventions to Improve Health Outcomes

There are many factors that affect a person's health beyond clinical medical interventions. A person's neighborhood, education, access to food, level of poverty and housing situation all significantly impact individual and population level health.[1]

Housing is considered a basic necessity—a pre-requisite for meeting a person's physiological and psychological needs.[2] As such, unmet housing needs can have a profound effect on people's physical and mental health outcomes.

When people's homes are threatened, either through a lack of housing or sub-par in-unit conditions without an easy fix (such as mold), they may suffer a range of physical and mental health conditions.[3] Indeed, for many advocates and policymakers, housing is the primary social determinant because "…where we are born and raised affects everything else—our ability to grow and stay healthy, the quality of schools in our neighborhood, our exposure to violence and crime, our access to employment opportunities and even our hopes and expectations for the future."[4]

A researcher from Harvard identified four ways in which housing issues can undermine health:[5]

- Substandard Housing: safety hazards within the home

- Housing Instability: not having a stable home

- Housing Affordability: financial burdens related to housing

- Neighborhood: characteristics of the places in which people live

This research brief describes the health impacts that arise from housing insecurity, followed by evidence-based solutions that can address health-related housing needs.

Harm from Substandard Housing

Substandard housing refers to homes that have one or more health and safety hazards which can cause significant illness, injury and death.[6]

The Centers for Disease Control and Prevention (CDC) estimated that five percent of housing units in the United States were classified as inadequate in 2009.[7] Moreover, in 2016, nearly 30 million U.S. households (35% of metropolitan homes in the U.S.) reported significant health hazards in their home, like evidence of rodents or holes in their walls and floors.[8]

Researchers have demonstrated that poor in-unit conditions contribute to health conditions like respiratory infections, asthma, lead poisoning and other mental and physical health conditions.[9] For example, 40 percent of asthma cases in children were related to the child's home environment.[10] Conversely, when children are raised in stable, healthy housing without exposures to environmental toxins, they are more likely to meet

SUMMARY

Housing is considered a fundamental pre-requisite for meeting a person's physiological and psychological needs. As such, unmet housing needs can have a profound effect on people's physical and mental health outcomes. This research brief finds strong evidence that addressing housing insecurity can improve individual and population-level physical and mental health can alleviate various health conditions like respiratory infections, asthma, lead poisoning, mental health conditions and more. Health and housing agencies need to work in tandem, along with health and housing advocates, to ensure a holistic equitable approach to improving health and housing situations.

developmental milestones.[11] Evidence also shows that adults in stable housing situations are able to better manage chronic illnesses, and have increased productivity at work.[12] By improving conditions in the home, negative health effects like asthma attacks can be mitigated.

Harm from Housing Instability and Affordability Burdens

Housing instability is an umbrella term for challenges ranging from: spending the bulk of household income on housing or having trouble paying rent, overcrowding or staying with friends and relatives in lieu of owning or renting.[13] Housing instability is a risk factor for becoming homeless.[14]

The 2013 American Housing Survey indicated that around 27.1 percent of household resident who had moved in the past year did so because of affordability problems.[15] In a study assessing the association between housing instability and healthcare utilization in low-income adults (aged 18 to 64 with total family incomes less than 200 percent of the federal poverty level), 23.6 percent experienced housing instability.[16]

Housing instability is associated with not having a usual source of healthcare, postponing medical care and not taking necessary medications.[17] Housing instability is also associated with increased use of the Emergency Department and hospitalization.[18]

Eviction and housing insecurity not only affects people's ability to access continuous care, but rent-burdened people also are often forced to choose between paying for rent and other services, like healthcare, medication or food.[19] In a survey of low-income families, 35 percent of respondents had to choose between paying for food and paying for rent or a mortgage.[20] Furthermore, the stress and anxiety of unstable housing can exacerbate health problems.

A study that surveyed caregivers and their children showed an association between housing instability and adverse health plus "material hardship," compared to individuals in stable housing. The study found increased risk of poor health in caregivers and children and increased risk of maternal depression, and a history of homelessness. [21,22]

Harm from Homelessness

People with housing insecurity and those who had previously been homeless are more likely than those with stable housing to experience homelessness.[23] A 2017 Department of Housing and Urban Development (HUD) survey estimated that on any given night there are over 500,000 people experiencing homelessness in the United States.[24]

There are many documented health risks associated with homelessness.[25] People living on the streets experience excess mortality: for example, death rates for homeless youth are 10 times higher than for the general population.[26] People who are homeless and have mental health and substance use disorders are more likely to have immediate life-threatening illnesses and less access to care.[27] Besides exacerbating existing health conditions, being homeless increases people's risk of developing health problems like skin disorders or extremity diseases, as well as increases the possibility of trauma like physical assault.[28]

Disproportionate Harm from Housing Insecurity Falls on Low-income and Non-White Families

The harms from substandard housing, housing instability and homelessness disproportionately affect certain vulnerable populations, including low income people, people of color,[29] adults with disabilities, LGBT youth, veterans with mental health concerns and fragile elderly people.[30]

Despite progress connected to the Fair Housing Act of 1968,[31] low-income people and minority populations are more likely to live in neighborhoods without adequate access to education, food, transportation and other important determinants of health.[32] Low-income people are 2.2 times more likely to occupy homes with severe structural problems, to live in overcrowded homes and less likely to have proper insulation in their homes compared to the general population.[33] Similarly, Black populations are 1.7 times more likely to occupy substandard homes.[34] And, Black populations are nearly four times more likely than people of other races to live in low-income neighborhoods.[35]

The U.S. legacy of housing segregation contributes to health and housing inequalities that continue to this day. For example, it is well known that people experience grave differences in health depending on their neighborhood.[36] Black and Hispanic people who live in highly segregated[37] neighborhoods that exhibit concentrated poverty and lower housing quality experience greater stress and have higher risk of illness and death compared to white people in nearby neighborhoods.[38,39]

Strategies to Address Housing Needs and Improve Health Outcomes

A key approach to improving health outcomes for vulnerable populations is to ensure their housing situation is safe and stable.[40] Strategies to address housing insecurity that feature a role for the health system include screenings for unmet housing needs, state and local community housing support, Housing First interventions and broad public health interventions.

Screen for Housing Insecurity and Provide Connection to Services

Healthcare providers are trained to identify patients' medical needs. But, identifying their patients' unmet social needs that contribute to poor health outcomes may be more difficult to detect. Social needs screening tools can help providers surface patients' non-medical needs, in order to connect them to social supports.

Screening for housing insecurity is one successful strategy to consider (see Hennepin *Spotlight*). The federal and state governments can encourage social needs screenings by requiring (and paying) providers to use evidence-based screening tools as a condition of participation in government-sponsored health plans. Characteristics of a high-quality screening tools and best practices can be found in Health Leads' comprehensive *Screening Toolkit*.[41]

Paying for screening and connections to housing services and supports can be accomplished in a variety of ways. Global budgets, such as the budget Hennepin Health used, provide funding flexibility. Other methods of funding include various waivers from CMS.

SPOTLIGHT: HENNEPIN COUNTY HEALTH CENTER

The Hennepin County Health Center in Minnesota uses several screening tools to determine if their Medicaid beneficiaries are housing-insecure. Two of these tools are: a general housing status screening administered to all beneficiaries, and a housing status survey administered to high risk patients. If patients indicate they have an unstable housing situation, their provider will record an ICD-10 code for "homelessness" into their electronic health record. Beneficiaries identified as having unstable housing situations are then connected to housing services.[42] These at-risk beneficiaries are also connected to an interdisciplinary team comprised of a community health worker, clinical pharmacist, alcohol and drug counselor, nurse practitioner and two part-time physicians.

The state funds Hennepin Health Plan through a risk-adjusted capitation payment for each enrolled person, adjusted based on their chronic health conditions. The flexibility of this payment model provides funds for administering the screening tool and connecting beneficiaries to housing services, which in turn reduces beneficiaries' need for expensive emergency health services. As a result, Hennepin Health has saved money every year.[43]

Housing Supports through Medicaid /State Partnerships

Another strategy states use to design programs for housing insecure beneficiaries is through their partnerships with Medicaid. The Medicaid program does not cover direct housing costs (like rent) but, through waivers like the 1115 waiver, Medicaid can fund house-related supports, like screening for housing instability, assisting with the housing search process and minor home modifications.[44] In addition, waivers under Section 1915(c) allow states to provide long term services and supports for Medicaid populations in home and community-based settings rather than other institutional settings. Some states use these waivers to provide additional housing supports to

specific vulnerable populations. For example, California uses a 1915(C) waiver known as CA in Home Operations to provide case management and care coordination, habilitation services, home respite, community transition and more.[45] Louisiana's waiver, LA Community Choices, pays for housing stabilization and housing transition or crisis interventions. But these waivers are relatively new and do not have evidence as to their effectiveness yet.

Addressing Competing Priorities: Housing First

Many people facing housing insecurity are confronted with other competing needs. The deep interplay between health and housing has led to a movement called "Housing First" which prioritizes providing immediate housing to people experiencing homelessness. This is guided by the belief that people need a place to live and other basic necessities before they can be successful in other aspects of life, like job hunting, budgeting or addressing mental health or substance abuse disorders.[49] The Housing First model has been particularly effective at ending homelessness in high need populations.[50] For example, across the nation, over three quarters of people who have been housed through Housing First interventions (between 75%-85%) are still housed after a year.[51]

Housing first is a promising intervention because people experiencing homelessness are more likely to use hospital emergency departments as a regular source of care. When these individuals are provided stable housing, health systems can experience net savings, especially for very high users of the ED.[52] Housing First is also economically beneficial: it is less expensive to a community to house a person for a year than for that same person to live on the street for a year.[53]

See the Wisconsin *Spotlight* on page 5 for a state strategy in which a Housing First intervention successfully improved population health.

Public Health Interventions

Public Health interventions have long included addressing housing insecurity. Public health departments' strategies often involve developing and enforcing housing guidelines and codes, assessing housing conditions,

Spotlight: Louisiana Permanent Supportive Housing (PSH) Program[46]

The Louisiana Department of Health partnered with the Louisiana Housing Authority in the wake of Hurricane Katrina to establish a program to prevent and reduce homelessness and unnecessary institutionalizations among people with disabilities. Louisiana's Medicaid program covers housing-related services like supportive services, referrals and case management services to support beneficiaries throughout the housing process. This includes assistance with the housing search, filling out applications, moving in and providing ongoing support. Louisiana has reported a 94 percent housing retention rate since the program began in 2008. Preliminary analysis shows that investments in PSH helped decrease the number of people experiencing chronic homelessness by 26 percent and statistically significant reductions in emergency department visits and subsequent hospitalizations. These permanent housing solutions save Medicaid money due to beneficiaries' reduced need to access the healthcare system: an independent analysis of the PSH program found a person's Medicaid acute care costs reduced by 24 percent after that person was housed.[47]

advocating for affordable housing and implementing "Healthy Homes" programs to improve indoor environmental air quality.[56]

Fixing Substandard Housing

As previously noted, there is a clear relationship between quality and safety in homes and adverse health outcomes, especially in vulnerable populations.[57]

Policies developed through HUD and the Green and Healthy Homes Initiative aim to improve conditions for people living in substandard homes. For example, the HOME initiative developed by HUD gives state and local municipalities grants to use in partnership with community nonprofits for a variety of housing related activities, including buying, building or rehabilitating

SPOTLIGHT: ARIZONA MERCY MARICOPA INTEGRATED CARE[48]

Mercy Maricopa is an integrated health plan in Arizona that manages behavioral healthcare for Medicaid beneficiaries. For adult Medicaid beneficiaries, the plan provides integrated physical and mental healthcare. For beneficiaries with a "defined vulnerability," including homelessness or significant mental illness, Mercy Maricopa has a Permanent Supportive Housing (PSH) program with 3,400 housing sites across the state. For these beneficiaries, the program provides a wide variety of Medicaid-covered housing services. These include housing navigation, case management, and a variety of skills building sessions, such as financial management, budgeting and public transportation skills. Preliminary outcomes data demonstrated that, in one year, admissions to psychiatric hospitals decreased by almost half (46%) for individuals with mental illness living in Mercy Maricopa PSH, utilization of crisis services declined by one third and housing retention increased by three percent.

SPOTLIGHT: WISCONSIN HOUSING INITIATIVE[54]

The Wisconsin Housing Initiative serves chronically homeless individuals with mental illness—a population especially vulnerable to other health problems. The program provides integrated housing and property management services to ensure that people who are connected to housing supports do not end up homeless again. It is a unique public/private partnership using funds from nonprofits like the National Alliance for Mental Illness (NAMI) and accepting rental assistance funds from Housing and Urban Development (HUD). Research shows that a homeless person can cost upwards of $40,000 a year in public dollars, from emergency department visits, jail time and shelter stays.[55] This is high compared to $10,000 per individual, per year costs of Housing Initiatives' permanent supportive housing and counseling services.

affordable housing or providing direct rental assistance funds to low-income people.[58] Renovating and improving poor housing conditions can improve resident's physical and mental health.

Neighborhood Revitalization: Mixed Income Developments

Even if the conditions of individuals' houses are improved, location in poor neighborhoods with high levels of crime and low-performing schools can adversely affect health. Evidence is strong that optimal health and well-being required neighborhoods that are safe, with adequate access to education, food, transportation, and other important determinants of health.[59] Creating neighborhoods that are designated as "mixed income" is one strategy to achieve the desired revitalization.

Congress initiated the Housing Opportunities for People Everywhere (HOPE VI) program in 1992 to revitalize public housing units in three ways: physical improvements, management improvements, and social and community services to address resident needs.[60] More than $6.1 billion was invested to transform severely distressed urban public housing into lower density "townhome-style" communities to attract higher income families and create mixed-income neighborhoods.

HOPE VI was one of the first studies of a housing intervention where health was the research focus, while previous research examining public housing focused on the use of housing vouchers to allow individuals and families to move away from poor-quality public housing. The program had positive impacts on adults' physical health and well-being and mixed results for children's mental health (lower rates of depression and conduct disorders among females but higher rates of depression, PTSD and conduct disorders among boys).[61]

Outside of HOPE VI, other research demonstrates clear health and economic benefits for low-income people that move into higher income neighborhoods: both adults and children that move out of low-income neighborhoods to higher income neighborhoods report improvements in their physical and mental health.[62] And, children whose families move to a lower-poverty area when they are younger than 13 years old have a higher future earning

potential (by 31%) than those whose families do not move. However, these advantages disappear for children older than 13.[63] Researchers do caution the reliability of these studies, though, because they do not correct for correlations between moving, income and other variables, like increased motivation in school and work.[64] Additionally, the benefits of a move are only significant if gaps in income between the residents are not too great, especially in locations with language diversity and racial tensions. If income gaps between residents are too large, lower-income people may not be able to bridge their differences and access the benefits of a mixed-income neighborhood.[65] The bottom line is, moving from more to less volatile housing situations improves some aspects of mental and physical health for at various levels for different populations.

Conclusion

For many decades, significant public and private effort has been made to address our nation's housing issues, though there is clearly still work to be done. Recognizing the linkages between health and housing creates powerful opportunities to improve both at the same time.

The evidence is strong that addressing housing insecurity can improve individual and population-level physical and mental health and alleviate various health conditions like respiratory infections, asthma, lead poisoning, mental health conditions and more.[66] Moreover, when permanent supportive housing is supplied to targeted populations, especially for vulnerable people with mental illness or chronic conditions, health improves, unnecessary hospitalizations are reduced and the state can save money.

Reflecting this evidence, funding for housing should be commensurate with the benefits that can be realized. In addition, health and housing agencies need to work in tandem, along with health and housing advocates to ensure a holistic equitable approach to improving health and housing situations.

Notes

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