

# Applying an Access Framework to Studying Equity at the Intersection of Housing and Health

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*In September 2019, Johns Hopkins entered into a contract with the U.S. Department of Housing and Urban Development (HUD) for Dr. Pollack to work part-time on a temporary assignment assisting the agency on housing and health issues. The views do not necessarily represent those of HUD.*

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## Abstract

*Safe and affordable housing in well-resourced neighborhoods is a cornerstone of health and well-being. Too often, however, such housing is in short supply, resulting in worse health and increased healthcare spending. HUD's Learning Agenda seeks to answer key questions on the role of housing and health, asking the fundamental question: How can HUD best address the health needs of people in its assisted housing programs and bring housing assistance to those for whom lack of housing is a major barrier to health? Underlying this question, the Learning Agenda seeks to apply an equity lens, recognizing that housing and health are not evenly distributed in our society. This report describes a framework of access, which has been developed to understand medical care utilization, to help examine questions of equity at the intersection of housing and health.*

## Equity in Housing Can Lead to More Equitable Health

President Biden's Executive Order on Advancing Racial Equity<sup>1</sup> calls for a renewed assessment of equity in all policies. Applying an equity lens to the learning agenda is critical because it will help build an evidence-based design that may provide insight into the ways housing programs are

<sup>1</sup> Executive Order 13985 of January 20, 2021, Advancing Racial Equity and Support for Underserved Communities Through the Federal Government. *Code of Federal Regulations*, 86 FR 7009: 7009-7013. <https://www.federalregister.gov/documents/2021/01/25/2021-01753/advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government>.

designed to support healthy low-income households and surrounding communities. Critically, the emphasis on equity can further demonstrate how HUD can responsibly aid underserved communities and better understand how future policies may need to be implemented differently across different populations. Focusing on equity within the research-oriented learning agenda creates a platform through which housing-related programs may be best used to support individual and community-level health.

## Six Dimensions of Access

The access framework provides one approach to systematically evaluate the impact of HUD programs and policies on health and housing equity. The leading definition of access, developed by Aday and Andersen, defines access as “those dimensions which describe the potential and actual entry of a given population group to the health care delivery system” (Aday and Andersen, 1974). The definition can be applied to understanding “entry” into high quality and affordable housing, its neighborhood context, and its connection with health and health care.

The Aday and Andersen definition has been further delineated into six dimensions according to the framework of access created by Penchansky and Thomas and augmented by Saurman (Penchansky and Thomas, 1981; Saurman, 2016). The framework is contextualized in identifying the effect of health policies on specific populations. A major strength is its ability to measure the fit between client and healthcare system, which was “used to support the assertion that client satisfaction with access influences utilization of health care services” (Kottke et al., 2018). Expanding beyond health services, fit can be conceptualized to apply to client satisfaction with housing assistance and both housing and health-related services.

1. **Availability** represents the adequacy and availability of existing healthcare services relative to clients’ needs. For housing, this dimension considers the supply of housing units at different price points across different neighborhoods relative to the increasing demand for affordable housing based on changing demographic and economic conditions.
2. **Accessibility** in the healthcare setting refers to the location and supply of healthcare services relative to client transportation, travel time, distance, and cost. When applying this to housing, accessibility suggests that the presence of affordable housing allows access to key community resources such as employment opportunities, family and friendship networks, and access to reliable modes of transportation.
3. **Accommodation** recognizes that healthcare is not always organized to accept clients in an understandable and convenient way. In the housing sphere, clients need to navigate the process of obtaining housing assistance and renting homes, recognizing that this is impacted by a range of factors, including prior experiences, mental health, limited housing market literacy, and other issues.
4. **Affordability** reflects the relationship between the price of healthcare services and the cost-sharing capabilities of clients. In the housing domain, the balance of housing prices and client income is a key focus of housing programs that are designed to lower the cost of rentals and subsidize the cost of construction and rehabilitation.

5. **Acceptability** is defined as “the relationship of clients’ attitudes about personal and practice characteristics of providers to the actual characteristics of existing providers, as well as to provider attitudes about acceptable personal characteristics of clients” (Penchansky and Thomas, 1981). The definition entails a dual process in which both the clients’ and the providers’ perceptions, biases, and discrimination shape access to quality health care; similarly, in housing, the client’s and landlord’s perceptions of each other impact client housing stability and perceived reliability and trustworthiness between both parties.
6. **Awareness** of services through effective communication and information strategies with relevant users, including consideration of context and health literacy, is the final dimension of access. In housing, this may include general messaging strategies designed to inform the public and public housing agency (PHA) employees of opportunities and targeted resources to assist individual clients.

Each of the six dimensions is shaped by the interaction between multiple levels of system- and interpersonal-level factors such as federal, state, and local policies, approval processes between housing authorities and clients, interactions between landlords and clients, clients’ familial needs, and other contextual circumstances. This model can be adapted to address equitable access to affordable and safe housing while simultaneously monitoring the fit between HUD service recipients (clients) and access to healthcare services.

Importantly, the framework suggests that equity be evaluated within each dimension to ensure proper access and that it be understood as a relationship or fit between the individual client and the broader context. Understanding access from six dimensions with an equity lens allows the entrance of novel pathways to answer proposed research questions and helps researchers and policymakers understand how inequities can result from discordance within and across each dimension of access. Ultimately, research grounded in equity, with an emphasis on the six dimensions of access, can be used to leverage housing and health care policy solutions aimed at addressing and eradicating inequities existent in the current system.

Further, an equity lens acknowledges the pressing need for research questions to be informed by the communities that are directly or indirectly impacted in the quest to solve complicated social problems. As an example, The Greensboro Health Disparities Collaborative has successfully incorporated the viewpoints of community leaders, advocates, public health researchers, university faculty, clergy, and healthcare professionals in their mission to “establish structures and processes that respond to, empower, and facilitate communities in defining and resolving issues related to health disparities” (GHDC, 2022). Such community action-based partnerships may inform and enrich research that seeks to prioritize equity and understand the different dimensions of access to housing and health. When possible, researchers should empower community leaders to actively participate in solving complex research questions related to housing and health.

## **Learning Agenda Objectives: Access as an Indicator of Equity**

The Learning Agenda raises critical questions about the connection between housing and health and healthcare. The access framework offers a practical approach to addressing access with an

equity lens. A few of the research questions outlined in the Learning Agenda are highlighted below and identify how dimensions of access may help frame questions around equity (exhibit 1).

***To what extent do health challenges represent opportunities for cost-effective coordination of healthcare services with housing assistance?***

An equity lens recognizes the glaring inequities in both housing and health which may be delineated, in part, by differential or unfair access within each access dimension. Research should investigate the extent to which recipients of federal housing assistance live near primary and specialty providers accepting Medicaid and Medicare insurance, and furthermore, how often they use nearby as opposed to more distant services (availability). Understanding how clients travel to the healthcare sites could identify and eliminate barriers to health care by incorporating mode of transportation, need for specialty transportation services, and overall convenience into care coordination services (accessibility). Affordability of both housing and health care expenses remains a pressing concern, recognizing that households will often make trade-offs between the two categories of spending. Understanding the extent to which housing costs contribute to delays in care-seeking and an inability to afford health-promoting resources (healthy foods) and activities (exercise) is crucial. Conversely, high healthcare needs and expenses may contribute to fluctuations in income and contribute to housing instability. A focused investigation into whether housing and healthcare services are perceived as fair, considering the role of stigma in the receipt of services and willingness to engage, could prove beneficial to better understand root causes of low assistance uptake or medical nonadherence (acceptability).

***Which program designs for deploying Integrated Pest Management in public and assisted housing are most cost-effective and manageable?***

Another Learning Agenda question focuses on deploying cost-effective and manageable Integrated Pest Management (IPM) in public and assisted housing. While the benefits of IPM have been established, the Learning Agenda aims to determine the best way to implement IPM approaches. Applying an access framework would underscore questions about the adequacy of supply and its timeliness relative to need (availability), recognizing that the need may be, at least in part, determined by an ongoing history of residential segregation, which may contribute to a higher concentration of assisted housing in blighted areas. The access framework further suggests the need for an investigation into the ability of clients to request services in a timely fashion with a contextual understanding of how this varies by client diversity (accommodation), concerns that clients may have in requesting services (acceptability), and the need for awareness about service offerings (awareness).

***How can HUD reduce the incidence of elevated blood lead levels among children of families in the Housing Choice Voucher program?***

No level of lead in the blood is safe. The Center for Disease Control and Prevention (CDC) states that even low levels of lead have been linked to harmful changes in intelligence, behavior, and health (CDC, 2022). While the hazards of blood lead levels are well documented, efforts to eradicate lead exposure in children are lagging (Cherney et al., 2021). In considering access through an equity

lens, it is important to acknowledge that non-Hispanic Black children are twice as likely as non-Hispanic White children, and more than three times as likely as Mexican-American children, to have elevated blood lead levels when prioritizing PHA funds (CDC, 2016). The current approach employed by HUD is to provide PHAs with funding to voluntarily conduct a lead hazard screening. To address equity, this approach should prioritize communities with a high-risk of lead exposure, typically communities with homes built before 1978 and a large population of Black families (availability). Clients should be educated about the dangers of lead poisoning, be comfortable expressing their concerns, and have the option to demand a lead hazard screen before a lease agreement is reached (awareness and accommodation). In addition, HUD should visibly advertise the availability of funding to high-priority PHAs and housing assistance recipients (awareness).

### Exhibit 1

#### Application of Access Framework to Learning Agenda Questions

Learning Agenda Question	Access Dimension	Access-related Questions
<b>To what extent do health challenges represent opportunities for cost-effective coordination of healthcare services with housing assistance?</b>	Availability	Is there a sufficient supply of health care providers within an area to meet clients' needs? Are clients able to request timely appointments? How does this vary across communities?
	Accessibility	How do clients travel to health care services, and what travel-related barriers do they face?
	Affordability	What trade-offs do individuals make in affording their health care, and how does this vary across different types of insurance coverage?
<b>Which program designs for deploying Integrated Pest Management (IPM) in public and assisted housing are most cost-effective and manageable?</b>	Availability	Are pest management programs available to all clients who experience related issues?
	Accommodation	Are households able to request and receive services in a timely fashion?
	Acceptability	What stigmas or barriers are associated with requesting IPM assistance?
<b>How can HUD reduce the incidence of elevated blood lead levels among children of families in the Housing Choice Voucher program?</b>	Availability	Are neighborhoods with high-lead susceptibility prioritized in funds allocation?
	Awareness	Are Public Housing Authorities (PHAs) and clients aware of how to obtain a lead hazard screen in their community?
	Accommodation	Can families receive lead hazard screenings before committing to a lease agreement to abate harm?
<b>How prevalent is receipt of Medicaid Home and Community-Based Services (HCBS) among HUD-assisted households?</b>	Availability	What disadvantages do HUD clients face in states and areas without an HCBS waiver?
	Accessibility	What additional support can HUD offer to those who do not qualify for HCBS based on jurisdiction regulations?
	Awareness	How do demographic characteristics exacerbate disparities in service(s) receipt?

## An Example of Access employed in Urban Development and Studying Park Access

Adapting the Penchansky access framework to health and neighborhoods has proved successful in prior research to better understand how neighborhood factors influence health and equitable distribution of health indicators. For example, the framework was applied to study equity in the usage of greenspace in the City of Baltimore (Hindman et al., 2020). Through a resident survey and geographic mapping of access in two low-income communities adjacent to a historic urban park, the researchers attempted to disentangle how inequitable park use may be related to dimensions of access (exhibit 2). The results suggest that perceptions around park access, park programming awareness, safety, and neighborhood affordability were each associated with park use. In contrast, geographic measures of distance within the two neighborhoods were not associated with park use. This study reiterates the importance of a multidimensional framework for understanding access as it relates to activities designed to improve health and well-being and provides a glimpse into the effectiveness of considering the dimensions of access with an equity lens in conducting research.

### Exhibit 2

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Dimensions of Access and Measures Used in Study of Access to Urban Greenspace

Dimension	Measure
Availability	Calculated travel time to a park
Accessibility	Perceived safety and ease of walking to a park
Accommodation	Satisfaction with park equipment, programming, and events
Affordability	Perceptions of costs of living near a park and participating in park events
Acceptability	Safety in the neighborhood, park upkeep, and feelings of acceptance

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Source: Hindman, Chien, and Pollack, 2020

## Conclusion

The Learning Agenda represents an important tool to better understand the ways housing and health are intricately intertwined. The Executive Order on Advancing Racial Equity reaffirms the need for research questions to be presented with explicit attention to housing and health in equity. Applying an access framework is one way to help generate a range of new access-oriented questions that consider the needs of the most vulnerable clients. Answering these questions often requires rich, multimodal data and employing quantitative and qualitative methods designed to understand broad trends, associations, and causal impacts in the context of the lived experience and meaning-making across clients' life course perspectives. The access framework further underscores that, across the broad range of research questions, the amount of quality and affordable housing assistance relative to need is inadequate. A call for renewed funding to make affordable housing more widely available will have important implications for health, health care, and overall well-being.

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