

Connecting Public Housing and Health: A Health Impact Assessment of HUD's Designated Housing Rule

Final report

June 2015



A collaboration of the Robert Wood Johnson Foundation and The Pew Charitable Trusts.

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* The advisory committee for this HIA was a group of organizations and individuals who advised the HIA project team during all phases of the HIA and reviewed and provided feedback on project documents before public release. The committee informed this HIA by bringing expertise and a diverse range of experience and or perspectives on public housing policy and issues that may affect seniors or people with disabilities. Individual members were invited based on the breadth of their current and former experience; their professional affiliations have been listed for identification only. The committee for this HIA was not a decision-making body; although the HIA team placed substantial weight on input and advice from the advisory committee, the Health Impact Project had final authority and responsibility for the HIA process, findings, and recommendations.

Acknowledgments

The HIA team thanks Pew staff members Jacintha Wadlington and Emily Bever for administrative support; Maggie Germano and Josh Joseph for evaluation support; and Jennifer V. Doctors, Jessica Hallstrom, and Bernard Ohanian for their assistance in preparing this document for publication. The HIA team also thanks Kate Ito, Lola Omolodun, Tim Reardon, Karina Milchman, Jennifer Raitt, Marc Draisen, Jessie Partridge, and Christine Madore of the Metropolitan Area Planning Council for their technical expertise and analytical contributions to the study; and Carmen Brick, Lisa Stand, and the advisory committee members for providing valuable feedback and guidance on the HIA. Many thanks to the policy experts, public housing administrators, and HUD staff members—particularly Shauna Sorrells, Anice Chenault, Bernita James, Ryan Jones, Becky Primeaux, and Kyleen Hashim—who served as key informants for this project. We are grateful to the residents, staff, and resident service coordinators from the Cambridge Housing Authority in Massachusetts, the Denver Housing Authority, and the Housing Authority of the City of Milwaukee who provided data essential to understanding the experience of this policy. This HIA is supported by funding from the Robert Wood Johnson Foundation and The Pew Charitable Trusts.

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Overview

A health impact assessment (HIA) was conducted to inform an update by the U.S. Department of Housing and Urban Development (HUD) of its designated housing rule and to illustrate the potential for incorporating health data into federal agency decisions. The designated housing rule allows housing authorities to allocate certain public housing properties, or a portion of them, for occupancy by senior families, disabled families, or a mixed population of senior and disabled families.

HIAs identify the potential health effects of a proposed policy, project, or program to inform policymakers, those affected by the decision, and others with an interest in the outcome, and to offer practical options for maximizing health benefits while minimizing health risks. This particular HIA—which was conducted by the Health Impact Project, a collaboration of the Robert Wood Johnson Foundation and The Pew Charitable Trusts, in partnership with the Oregon Public Health Institute and the Metropolitan Area Planning Council—sought to identify potential health implications that could stem from changes to the designated housing rule. To provide HUD with data to inform the development of an updated rule, the assessment was conducted before the rule-making process began. The HIA examined two scenarios HUD could pursue, developed in consultation with key stakeholders. (See Page 7.)

This assessment was also intended to demonstrate how HIA might be used—in the context of a federal rule-making process—as a tool to advance the National Prevention Council’s goals. HUD is a member of the council, a multiagency federal panel charged with working together to improve the health of all Americans, and chose the designated housing rule-making process for this purpose.

This document summarizes findings from the assessment. The study team conducted a systematic literature review; quantitative analysis of housing and health data; and qualitative research, including interviews and focus groups with a national sample of public housing residents, property managers, resident service coordinators, community partner organizations, and housing or health administrators. This report also outlines recommended actions, arising from the HIA, that HUD could take to optimize the potential health effects of designated housing rule-making.

What is the history and context of the designated housing rule?

The designated housing rule is one of many tools used by public housing authorities (PHAs) to allocate scarce resources and provide housing for seniors and people with disabilities who live in the PHAs’ jurisdictions. HUD is planning to update the rule to align with statutory changes made in 1996 and to clarify and streamline the procedures by which PHAs designate housing for these populations.

The authority for PHAs to designate housing was enacted amid controversy over how best to provide affordable housing for seniors and people with disabilities. Between the early 1960s and 1980s, Congress expanded the definition of “elderly family” to include people with disabilities, and public housing properties that had been predominantly for seniors became available to younger individuals with a range of disabilities. These changes to the definition occurred during the national movement toward deinstitutionalization of people with disabilities in favor of opportunities for integrated community living.

As a result, seniors and younger people with disabilities began living in the same public housing properties more frequently. Concerns among senior and disability rights advocates about access to housing, coupled with dramatic media accounts of alleged violent incidents committed by younger residents with disabilities against seniors, highlighted the challenges PHAs faced in successfully housing these populations together. In response, through the Housing and Community Development Act of 1992, Congress established separate definitions for “elderly family” and “disabled family” and gave PHAs the option to designate certain properties, or a portion of them, for senior families, disabled families, or both. Two years later, HUD released the designated housing rule (24 CFR 945), setting administrative requirements and procedures. In 1996, the Housing Opportunity Program Extension Act significantly revised requirements for PHAs seeking approval to designate housing and reduced

HUD’s role in the approval process. Since that time, HUD has continued to issue a series of notices to guide PHAs in their use of the rule until the regulation is revised.¹

One hundred twenty-eight PHAs in 37 states and the U.S. Virgin Islands have an approved plan to designate housing for seniors or people with disabilities. These plans cover 63,806 units—less than 6 percent of all public housing nationwide—of which approximately 91 percent are designated for senior families, 4 percent are designated for disabled families, and 5 percent are designated for a mixed population. The majority (96 percent) of designated units are one bedroom or studio apartments. Urban PHAs that own or manage a large number of units are more likely to use the designated housing rule than are those in rural areas and those with fewer units. Designated housing is located across the country and is concentrated in large metropolitan areas. PHAs that designate housing for disabled families or mixed populations are located primarily on the East Coast and in the Chicago region.

Key Definitions

HUD uses the following terms to refer to its target populations:*

“Person with disabilities means a person who:

- (i) Has a disability, as defined in 42 USC 423;
- (ii) Is determined, pursuant to HUD regulations, to have a physical, mental, or emotional impairment that:
 - (A) Is expected to be of long-continued and indefinite duration;
 - (B) Substantially impedes his or her ability to live independently, and
 - (C) Is of such a nature that the ability to live independently could be improved by more suitable housing conditions; or
- (iii) Has a developmental disability as defined in 42 USC 6001.”[†]

“Disabled family means a family whose head (including co-head), spouse, or sole member is a person with a disability. It may include two or more persons with disabilities living together, or one or more persons with disabilities living with one or more live-in aides.”[‡]

“Elderly family means a family whose head (including co-head), spouse, or sole member is a person who is at least 62 years of age. It may include two or more persons who are at least 62 years of age living together, or one or more persons who are at least 62 years of age living with one or more live-in aides.”[§]

* Based on feedback from members of the advisory committee for this HIA, the terms “seniors” and “senior families” are used in lieu of “elderly” and “elderly families,” where possible.

† 24 CFR 5.403.

‡ Ibid.

§ Ibid.

Who is eligible for or living in designated public housing?

Nearly 5 million low-income households, comprising more than 10 million individuals, live in HUD-subsidized housing in the United States.² Approximately 22 percent, or 1.2 million, of all HUD-subsidized units are public

housing.³ In addition to public housing, PHAs are also responsible for managing and administering the Housing Choice Voucher program, which provides vouchers for subsidized housing to help very low-income families afford housing in the private rental market. Nearly 800,000 senior families (more than 450,000 of which have a head of household or spouse with a disability), and more than 830,000 younger disabled families, receive housing assistance through either public housing or the voucher program.⁴ Ninety-one percent of designated public housing units are for seniors only, so the majority of designated housing residents are seniors. Because studies have not examined the demographics or health status of designated housing residents specifically, the HIA team used two types of relevant data as a proxy for those who could be eligible for or residing in designated housing, including research on public housing residents, generally, and low-income seniors and people with disabilities living in counties where housing authorities operate.

Families in public housing typically have incomes below the federal poverty line.⁵ Public housing residents are also less likely than the general public to have attained education beyond high school. For example, a study using data on public housing residents from the Boston Behavioral Risk Factor Surveillance System found that only 36 percent had attained an education beyond high school, compared with 76 percent of other area residents.⁶ Households with heads who have lower levels of education are more likely to remain in or move deeper into poverty than are those with heads who have higher levels of education.⁷

People who are eligible for or residing in public housing have higher rates of physical and behavioral health issues than does the general population.⁸ Residents in public housing are more likely to report being in fair or poor health compared with other area residents.⁹ Limited mobility or the need for assistance with everyday tasks, such as toileting, eating, bathing, dressing, household chores, and arranging and getting to appointments, are common challenges for low-income seniors and people with disabilities and are also more common among seniors in public housing than among other seniors in the community.¹⁰ For example, one study reported that 40 percent of seniors in public housing had limitations in activities of daily living compared with 19 percent of senior homeowners.¹¹ An analysis of population health data for low-income individuals in counties where housing authorities operate found that 66 percent of low-income seniors were overweight or obese, and 25 percent had diabetes—and, among low-income people with disabilities, 72 percent were overweight or obese and 27 percent had diabetes.¹² By comparison, national statistics report that among adults in the general population, about 65 percent are overweight or obese and fewer than 10 percent have diabetes.¹³

How does the designated housing rule relate to health?

The HIA focused on six factors important to health that could be affected by designated housing rule-making: housing affordability, housing discrimination and choice, housing as a platform for supportive services, resident social environment, housing design and accessibility, and neighborhood characteristics. These factors were selected based on strong evidence of their effect on health outcomes and on stakeholder priorities. Because one of HUD's goals is to clarify and streamline the procedure that PHAs must follow to designate housing, the analysis also considers the implications of this regulation for PHA administration and financing.

Scenarios

This HIA assessed two possible scenarios HUD could follow in updating the designated housing rule. In the first, the majority of designated housing plans would continue to seek designation for senior-only properties, and HUD would clarify its policies regarding how the rule interfaces with financing mechanisms, such as the Low-Income Housing Tax Credit and Rental Assistance Demonstration programs. In the second scenario, HUD would use the rule-making process to encourage coordination of resources and collaboration among affordable housing and supportive service providers and those implementing state and local initiatives to address fair housing and homelessness. These two approaches are not mutually exclusive, and HUD could implement select actions from each.

Housing affordability

Limited affordable housing can force households to make difficult trade-offs that can negatively affect health. Adults who have unstable housing (e.g., who are behind on their rent or mortgage or are homeless) are more likely to report being in fair or poor health and to experience anxiety or depression than are those who have stable housing.¹⁴ A lack of affordable housing not only affects people's ability to acquire and maintain adequate shelter, but it also limits their ability to meet other basic needs: Financial constraints can force individuals to choose among paying for rent, utilities, food, or medical care.¹⁵ These trade-offs, termed material hardship, have implications for health through food insecurity, exposure to extreme temperatures, housing instability, or forgone medical care and medications. In focus groups, residents talked about facing difficult budget choices in their efforts to meet basic needs and stay healthy, such as paying for medications or healthy foods.

Affordable housing needs among both senior and disabled households have increased nationwide. The demand for federally subsidized rental housing is far greater than the supply. Only 1 in 4 low-income renter households that qualify for federal housing assistance is receiving it, and typically only after a lengthy wait.¹⁶ Income eligibility criteria vary among the federal housing assistance programs; in general, households must have incomes at or below 80 percent of the area median income, and some programs limit eligibility to incomes at or below 50 percent of the area median.¹⁷ However, a majority of households receiving rental assistance have incomes at or below 30 percent of the area median (roughly equivalent to the poverty line, on average, nationally). In 2012, for example, 73 percent of all public housing households earned an average of 25 percent of the median income in their respective communities.¹⁸

Nearly 7 million renter households earning less than half the median income for their areas are senior families without children or families with younger people with disabilities. Of these, HUD considers approximately 2.75 million households as having "worst-case" housing needs—renters with very low incomes (50 percent or less of the area median) who do not receive government housing assistance and who either paid more than half their monthly incomes for rent, lived in severely substandard conditions, or both. Nationally, these account for about 1 in 3 of all households with worst-case housing needs.¹⁹ Between 2009 and 2011, the number of worst-case households increased significantly.²⁰ This was especially true among households with younger people with disabilities.²¹

Moreover, nearly all data on worst-case and affordable housing needs, including those discussed here, underestimate the unmet need because they do not include those who are homeless or living in institutions, such as nursing homes or assisted living facilities. To be considered chronically homeless under the HUD definition, the individual or head of household must have a disabling condition, making it critical to include the homeless population when estimating the number of disabled households in need of housing.²²

As previously noted, PHAs predominantly designate properties as senior-only (91 percent of designated units). In focus groups conducted for this HIA, younger designated housing residents with disabilities voiced concerns

about the implications for availability of affordable housing supply to younger disabled households if PHAs continue the trend of seeking approval for senior-only designations. On average, approximately 3,237 public housing units were newly designated for seniors each year between 2011 and 2013, compared with an average of 68 mixed and disabled designated units, combined. If the rule-making process does not result in changes to the average number of units designated for these populations, as many as 16,185 units would be newly designated for seniors over the next five years, compared with 340 or fewer allocated to younger people with disabilities.

Housing discrimination and choice

Housing discrimination can affect health by limiting people's opportunities to live in affordable and accessible housing units and in neighborhoods offering high levels of economic and social resources. For example, practices such as "geographic steering," where potential renters or purchasers are intentionally directed by property owners or others in the housing industry to highly segregated racial and ethnic minority and poor neighborhoods, can affect households' access to resources and opportunities that are essential to health (e.g., education, employment, opportunities for physical activity, healthy foods, and medical services).²³ Data suggest that participants in the Housing Choice Voucher program may face housing discrimination, often based on their source of income or whether they are families with children.²⁴

Research that directly examines how housing discrimination affects health is limited, but analyses of the relationship between racial discrimination and health can help to illuminate the effects of housing discrimination. One systematic review of published studies found that racial discrimination is associated with a number of negative health outcomes, including poorer mental health, more intimate partner and interpersonal violence, poorer self-rated health, worse physical functioning, less use of preventive health services or medication adherence, higher rates of smoking and substance use, and physiologic responses consistent with stress, including changes in cortisol levels, blood pressure, and heart rate.²⁵

Housing discrimination remains a common problem for many population groups, including people with disabilities, despite policies designed to prevent it. Between 2008 and 2013, HUD's Office of Fair Housing and Equal Opportunity filed 27,239 fair housing cases against rental property owners, real estate offices, public housing authorities, and others in the housing industry. Forty-eight percent involved allegations of discrimination based on disability.²⁶ Furthermore, the number of such cases as a share of total fair housing cases filed increased in each of those years.²⁷

The designated housing rule operates at the intersection of several laws and policies that aim to decrease housing segregation and discrimination, including Title VI of the Civil Rights Act of 1964; the Fair Housing Act of 1968; Section 504 of the Rehabilitation Act of 1973; the Fair Housing Amendments Act of 1988; the Americans with Disabilities Act of 1990; and *Olmstead* case law and guidance.²⁸ One challenge HUD must address is how the designated housing rule can best operate within these laws and policies to decrease housing segregation and discrimination. If the rule-making improves collaboration between PHAs and agencies and nongovernmental organizations implementing state and local initiatives to address fair housing and homelessness, access by younger people with disabilities and frail seniors to public housing units and therefore to more affordable housing choices could increase.

Housing as a platform for supportive services

When housing is coordinated with supportive services, it can benefit the health of seniors and people with disabilities. Housing that is coordinated with services ranging from transportation to medical appointments to assistance with daily tasks such as cooking or bathing can increase housing stability, decrease behaviors such as substance abuse that are detrimental to health, improve medical care outcomes and treatment adherence, enhance quality of life, and facilitate community integration and housing choice. Evaluations of various models to coordinate supportive services with housing also indicate the potential for cost-avoidance or savings. For

example, a 2005 survey by the Centers for Medicare & Medicaid Services estimated that if 165,276 nursing home residents who indicated that they would like to return to their communities received Home and Community Based Services waivers to do so, the public could see annual savings of \$2.6 billion.²⁹ These figures, however, do not consider the ability of respondents to successfully return to their communities. For example, one study estimated that 30 percent of seniors in long-term care facilities would be able to independently perform most everyday tasks.³⁰

Providing housing as a platform for improving quality of life is a strategic goal for HUD. Service coordination—a bridge between housing and an array of available services and providers—is integral to successfully combining supportive services and affordable housing.³¹ In the early 1990s, HUD created the Service Coordinator Program and the Resident Opportunities and Self-Sufficiency Program to link public housing residents with resident organizing and leadership activities, supportive services, and assistance in becoming economically self-sufficient.³² In focus groups and interviews, PHA staff, resident service coordinators (RSCs), and residents indicated that RSCs were a critical aspect of PHAs' efforts to support the housing and health needs of seniors and people with disabilities. Several property managers indicated that these coordinators were essential to helping residents maintain tenancy, independence, and neighborly relations at their properties. If the rule-making promotes alignment of affordable housing and health resources, more senior and disabled families living in designated housing could gain access to supportive services that benefit health.

Resident social environment

For residents in designated housing, the social environment—the connections, relationships, and interactions among occupants—can have a substantial impact on health and quality of life. Strong social support networks and social participation can improve people's functional skills and quality of life and can help seniors live longer. Conversely, stressors such as crime, violence, and social isolation can negatively affect mental and physical health.

Some focus group participants noted that a sense of safety and connections with neighbors in their own building can decrease isolation and improve participation in physical and social activities. Conversely, many people described the health implications of experiencing conflict among neighbors, including stress, sleeplessness, and exacerbated asthma. Several participants indicated that they remained isolated in their apartments rather than socializing or participating in activities with other building residents because of real or perceived resident conflict and safety issues. Furthermore, many residents expressed concern about crime in their buildings and the safety and security of building entrances.

Residents also expressed differing preferences about living in public housing designated for seniors only as opposed to public housing designated for mixed populations. Some seniors said they would rather live in a senior-only environment where other residents have common interests and come from the same generation; others favored living with a mixture of age groups and appreciated intergenerational learning opportunities. Several younger people with disabilities shared concerns about being segregated into properties based on their disability status and conveyed the importance of mixed-population housing as an option for integrated community living. The impact of designated housing rule-making on the resident social environment and associated health outcomes is likely to be mediated by other factors discussed in this HIA, including housing discrimination and choice, property accessibility and availability of community space, and neighborhood characteristics.

Housing design and accessibility

The design of the housing development and residential unit can help residents maintain independence, reduce the risk of injury or death, and improve public safety. Accessibility features can reduce the risk of injury related to falls, support independent living, and promote mobility and socialization, all of which are important for good health.³³ Community space within a public housing development is also an important consideration for seniors

and individuals with disabilities. In focus groups, many designated housing residents expressed concerns about the accessibility of their units and of the development as a whole and how it affected their health and safety.

A majority of public housing developments were built before the passage of key federal laws and are not accessible to people with disabilities. Laws such as Section 504 of the Rehabilitation Act and the Americans with Disabilities Act (ADA) require that housing developments be accessible to all people regardless of age or ability. HUD has made investments through programs such as HOPE VI and Choice Neighborhoods that have supported accessibility improvements in public housing. But research suggests that PHAs have room for improvement with regard to the accessibility of their developments. For example, a 2008 study assessed the physical accessibility of 14 public housing developments and concluded that many were not compliant with ADA requirements. The authors called for better enforcement of accessibility regulations.³⁴

In general, most U.S. housing stock does not have optimal accessibility. One study estimated that the vast majority (roughly 90 percent) of the housing units in the United States are inaccessible to people with physical disabilities.³⁵ In focus groups and interviews, PHA staff noted that seniors and people with disabilities who hold Housing Choice Vouchers often face challenges in finding accessible units in the private market. Construction and rehabilitation are the primary opportunities for making housing units accessible. If the rule-making does not change the number of senior-only designations done in conjunction with mixed-finance development, as many as 6,775 accessible public housing units could be available to senior households within five years.

Neighborhood characteristics

Neighborhood characteristics such as availability of public transportation and grocery stores, levels of racial and economic segregation, crime rates, and perceived safety are important factors in the health of seniors and people with disabilities. PHAs that use the designated housing rule tend to be located near transit and community health centers but also in more racially and ethnically segregated neighborhoods and in counties with higher levels of violent and property crime compared with PHAs that do not use the rule. However, in focus groups, several residents mentioned that limited or costly public transportation makes it difficult to access medical care.

The findings also suggest that there may be differences between the neighborhoods surrounding predominantly mixed and disabled properties compared with senior-only and other property types within a given PHA's portfolio. For example, this analysis suggests that mixed and disabled properties may be more likely to be located in neighborhoods with a greater share of racial or ethnic minority residents, higher poverty rates, and fewer opportunities for employment compared with senior-only properties. However, due to small sample sizes, these findings should be interpreted with caution. If the rule-making encourages PHAs to use readily available data regarding neighborhood characteristics in their designated housing plans, it could help them connect residents to local resources and services and select properties for designation. However, the rule-making is unlikely to directly affect the characteristics of the neighborhoods surrounding public housing properties.

Public housing administration and financing

The designated housing rule intersects with several affordable housing financing mechanisms and trends. No federal funding has been authorized to increase the total number of public housing units since the early 1990s. HUD has tried to slow the loss of public housing units resulting from poor maintenance and lack of capital improvements through programs such as the Rental Assistance Demonstration (RAD) program, which allows PHAs to convert public housing properties to long-term, project-based vouchers or rental assistance contracts with nonprofit or for-profit property owners.

The Low-Income Housing Tax Credit (LIHTC) program also supports rehabilitation and redevelopment of existing affordable housing. Through the program, tax credits are allocated to states based on their populations. Developers apply and compete for these credits and then sell them to investors to raise capital for their projects, which reduces the debt required to build or rehabilitate housing and makes it financially feasible to provide

units at lower rents. PHAs frequently partner in the development of LIHTC properties to facilitate the rehabilitation or replacement of public housing units in their jurisdictions.

In focus groups and interviews, PHA staff noted that approval of a designated housing plan for public housing units within a mixed-finance development, particularly for senior-only housing, can help PHAs secure investors and optimal pricing. Several also said that they were exploring options to convert public housing properties under RAD as described above, including those designated for seniors or younger people with disabilities. Although additional analysis is needed, preliminary research suggests that some stakeholders have concerns regarding potential changes to the rule as they relate to RAD conversions and to the timeline for applying for tax credits.

Recommendations

Based on these findings, HUD could take a number of actions to optimize the health effects of the designated housing rule-making. Although designated units make up less than 6 percent of public housing nationwide, these recommendations could be used more broadly to support the health of more than 1.6 million senior and disabled families that PHAs assist through the public housing and voucher programs. Designated housing rule-making offers substantial opportunities for HUD to engage in interagency collaborations at the federal level and to support PHA efforts to offer more choices in integrated community living; expand partnerships that bring together housing and supportive services; and create environments that help seniors and people with disabilities remain in home and community-based settings as they age.

The recommendations highlighted below are those likely to have the greatest impact on the health of seniors and people with disabilities. A complete list of recommendations is available on Page 99. Many of these recommendations speak to opportunities to support the health of senior and disabled households beyond those living in designated units and therefore may be optimally addressed as a part of regulation or guidance instructing broader PHA efforts. Successful implementation of these recommendations would probably require additional financial and staffing resources for HUD and other federal agencies.

Expand efforts to use housing as a platform for supportive services. In HUD's 2014-18 strategic plan, one of its goals is to "Use housing as a platform to improve quality of life" by improving housing stability and health outcomes.³⁶ Housing that is coordinated with supportive services can benefit health and help state and local governments contain public service and health care costs. For many seniors and younger people with disabilities living in designated housing, supportive services help facilitate mental and physical health and the ability to meet lease requirements and maintain housing. HUD requires PHAs to describe in their designated housing plans the supportive services they plan to provide or coordinate. In updating the designated housing application requirements, HUD could:

- Provide guidance and incentives to PHAs to collaborate with state Medicaid redesign efforts to support the coordination of housing with supportive services, including medical services, assistance with daily tasks, and social services, such as food and nutrition programs. Such initiatives could include formal relationship agreements with Medicaid programs, including Home and Community-Based Service waivers or the Money Follows the Person program, and co-location of designated housing properties with Federally Qualified Health Centers or Community Mental Health Centers.
- Expand the scope of the HUD and Department of Health and Human Services (HHS) Housing Capacity Building Initiative for Community Living or form an additional advisory committee to bring together stakeholders on an ongoing basis to discuss alignment of housing, supportive services, and public safety systems for residents in HUD-assisted properties.

2) Promote fair housing initiatives to support choice in integrated community living. People with disabilities have significant unmet affordable housing needs. Despite federal fair housing laws and policies, these individuals

are likely to experience discrimination in their attempts to find housing. To support PHA efforts to develop and implement fair housing initiatives that offer people with disabilities a choice in integrated community living, HUD could:

- Require that PHAs, when submitting a designated housing plan, certify that it is consistent and in compliance with the forthcoming Affirmatively Furthering Fair Housing rule and Section 504 of the Rehabilitation Act of 1973.
- Provide guidance and incentives to PHAs to consult or demonstrate consistency with state *Olmstead* plans or settlement agreements (where applicable), state agencies responsible for implementation, and local plans to end chronic homelessness by:
 - Demonstrating an affirmative marketing strategy for people with disabilities by targeting potential tenants, such as those transitioning out of institutions, who are least likely to apply for housing.
 - Developing memorandums of understanding with area affordable housing providers (e.g., Section 811 and Section 202 providers), and using project-based vouchers (i.e., Housing Choice Vouchers dedicated to specific housing projects) to assist in the creation of a supportive housing environment.
- Promote integration of residents with disabilities by encouraging designation of disabled units distributed throughout public housing properties and the inclusion of more mixed-population units in PHAs' designated housing plans. This could be achieved by offering funding flexibility, expediting processes for designated housing plan approvals, or providing additional points in the formula for determining operating subsidies for these properties. Successful implementation of this recommendation would require sustained access to supportive services and service coordination for these residents.

3) Improve data availability and accuracy. Affordable housing needs have risen significantly over the past few years, but they are underestimated because current data sources do not capture those who are homeless or living in institutions such as nursing homes or assisted living facilities. Additionally, data on senior and disabled households' ability to successfully use Housing Choice Vouchers to rent a unit, known as success rates, are limited. To address this, HUD could:

- Strengthen collaboration with HHS to develop metrics and a data-collection protocol to provide a more accurate picture of affordable housing needs among people with disabilities and seniors, and equip PHAs with improved data about their jurisdictions. Available datasets for such an analysis include: the Comprehensive Housing Affordability Strategy; special tabulations of the American Community Survey, including information on residents in group quarters; and the Homeless Management Information System.
- Strengthen tracking of Housing Choice Voucher success rates among senior and younger disabled households. This could be accomplished through improved guidance to PHAs on capturing demographic data when reporting to HUD and by encouraging PHAs to consider the rates for seniors and people with disabilities when developing designated housing plans.
- Request that PHAs delineate, as part of their justification for the designation, HUD-subsidized and other affordable housing programs in their jurisdictions that are available to serve seniors or people with disabilities, such as Section 811, Section 202, and Continuum of Care permanent supportive housing providers, in their applications to designate properties. Currently, HUD only considers housing resources in the PHA's portfolio when examining the availability of alternative housing resources. This will allow for a more accurate assessment of affordable housing supply and availability of alternative housing resources. HUD could also improve coordination of public housing, Section 811, and Section 202 funding and eligibility criteria to facilitate partnerships between PHAs and other housing providers, which can improve efforts to meet local affordable housing needs.

4) **Equip PHAs with data to inform strategies and actions to improve neighborhood resources.** PHAs that use the designated housing rule are typically located in urban areas that are more densely populated and more diverse, and have higher poverty and crime rates than PHAs that do not use the rule. The HIA analysis also suggests that there may be differences in the characteristics of neighborhoods surrounding predominantly mixed and disabled properties compared with senior-only properties within a given PHA, such as fewer resources and opportunities for employment. Easily accessible data regarding neighborhood resources and service needs for designated housing residents (e.g., transportation, medical clinics) could inform PHAs as they develop designated housing plans. To address this, HUD could provide guidance to PHAs on incorporating neighborhood metrics into their designated housing plans, such as those already established under the Healthy Communities Transformation Initiative and associated Healthy Communities Index, the Affirmatively Furthering Fair Housing indicators, and the eCon Planning suite.³⁷

Additionally, in the short term, HUD could take a number of actions to help ensure alignment of the designation process with trends in public housing financing, streamline the plan review and approval process, and improve tracking of rule use, including:

- Establishing an internal working group and an external advisory committee to examine the intersection of the designated housing rule and broader trends in public and affordable housing finance, including LIHTC and RAD. These groups could be charged with, for example:
 - Developing strategies for coordination and alignment of program goals, implementation requirements, and accountability measures.
 - Establishing monitoring systems to track affordable housing needs and supply.
 - Training PHA staff to blend the requirements of the public housing and LIHTC programs.
 - Engaging with community partners regarding fair housing concerns and tenants' rights.
- Developing and implementing a simplified application form that clearly delineates examples of the data sources PHAs could use to respond to the questions HUD staff use in reviewing designated housing plans.
- Increasing efforts at both the national office and local field offices to achieve accurate and regularly updated surveillance of designated housing rule use, including data on specific PHA properties with designated units.
- Developing and implementing a plan for improving the accuracy of data on mixed-population properties to enable a comprehensive analysis and ongoing monitoring of their number and distribution. This could include encouraging PHAs to routinely use data fields already available to them in HUD's Inventory Management System/Office of Public and Indian Housing Information Center data system to report the number of designated units in their portfolio and clearly communicating why these data are important and how they will be used.

Policy background

History and context

HUD's public housing program

The U.S. Housing Act of 1937 created the public housing program and authorized funding to administer and develop public housing.³⁸ The program, administered by the U.S. Department of Housing and Urban Development (HUD), is one of several federal programs that aim to improve access to housing and housing conditions for low-income families.

The program is administered locally by about 3,300 PHAs across the United States. These PHAs own and manage nearly 1.2 million public housing units, approximately 22 percent of the HUD-assisted housing stock.³⁹ The program reached a peak of 1.4 million units in 1994, but stock has since declined as a result of demolition and redevelopment into smaller properties and as federal policy has shifted toward voucher programs, such as the Housing Choice Voucher program, and private, subsidized housing, such as the Low-Income Housing Tax Credit Program.⁴⁰ Through the public housing program, HUD provides federal aid to PHAs that provide housing for low-income residents at affordable rents. HUD also offers technical and professional assistance in planning, developing, and managing these developments.⁴¹

PHAs are responsible for screening prospective public housing tenants for eligibility: Residents must be low-income (i.e., have a household income equal to or less than 80 percent of the area median family income).⁴² HUD also requires PHAs to use at least 40 percent of their units to provide housing for extremely low-income households (i.e., those with incomes equal to or less than 30 percent of the area median family income, which is roughly equivalent to the federal poverty line, on average). In practice, however, many PHAs provide a substantially higher portion of units to such households.⁴³ For example, in 2012, 73 percent of all public housing households were extremely low-income, earning an average of 25 percent of the median income for their communities.⁴⁴ Public housing tenants pay no more than 30 percent of their household income in rent. PHAs also maintain lists of eligible households waiting for public housing units to become available.

PHAs vary greatly in size, from the three-unit Delray Beach Housing Authority in Florida to the 180,000-unit New York City Housing Authority, the nation's largest.⁴⁵ Nearly half (46 percent) of PHAs have fewer than 100 units under management, and more than 87 percent manage fewer than 500 units. (See Table 1.) Only 10 have more than 7,500 units, but those PHAs comprise more than a quarter of all public housing units.⁴⁶

Table 1

26% of Public Housing Units Are Managed by Just 10 Local Authorities

Distribution of public housing authorities, by number of units managed

PHA size (number of units)	Number of authorities	Total share of authorities (%)	Total share of units (%)	Total units
<100	1,281	46.0	6.0	67,417
101-500	1,156	41.5	23.7	265,052
501-1,000	181	6.5	11.2	125,992
1,001-3,000	124	4.4	18.4	206,364
3,001-7,500	35	1.3	14.7	164,436
7,501+	10	0.4	26.0	290,939
Total	2,787	100	100	1,120,200

Source: HUD Geospatial Data and Map Services, Assisted Housing Properties

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Development of the designated housing rule

HUD’s designated housing rule, created in 1994 amid controversy about how best to provide affordable housing for seniors and people with disabilities, gives PHAs the option to designate certain public housing projects, or a portion of them, for occupancy by income-eligible senior families, disabled families, or a mixed population of both. The rule’s enactment was the culmination of more than three decades of evolution in housing policy.

Between the early 1960s and 1980s, Congress expanded the definition of “elderly family” to include people with disabilities and, as a result, public housing properties that had been predominantly for seniors became available to younger individuals with a range of disabilities. The Housing Act’s original definition of “low-income family”—the household unit considered in public housing applications—did not include distinct categories for seniors or non-elderly people with disabilities.⁴⁷ In 1956, Congress amended the act to include single seniors in the definition of low-income family and again redefined elderly families in 1962 to include individuals of any age with a physical disability. Congress further amended the definition of elderly families during the late 1970s and 1980s to explicitly include individuals with developmental disabilities, with HIV/AIDS, and with mental illnesses, and those recovering from drug and alcohol addiction.⁴⁸ For a definition of these and other important terms used in this document, see Appendix A.

These changes occurred in the context of a national movement, which began in the late 1950s, to deinstitutionalize people with disabilities in favor of opportunities for integrated community living. Before that time, people with disabilities, particularly those with mental health, intellectual, or developmental disabilities, largely were isolated in institutional and hospital settings.⁴⁹ In the decades since, local, state, and federal governments and the courts have expanded these efforts, driving further development of programs to provide housing and services within a community setting for people with disabilities.⁵⁰

This shift, however, was not paired with increased funding for community-based affordable housing or services for seniors and people with disabilities.⁵¹ And because public housing projects that predominantly housed seniors were most likely to have the studio or one-bedroom units that could best meet the needs of younger people with disabilities, the two populations began living in the same properties more frequently.

One estimate in the early 1990s found that approximately half of the new occupants accepted into elderly public housing projects were younger people with disabilities, reflecting the substantial demand for housing among that population.⁵² Concerns about access to housing among senior- and disability-rights advocates and media accounts of alleged violence by younger residents with disabilities against seniors highlighted the challenges PHAs faced in housing the groups together. Such stories, including the alleged rape of a 90-year-old woman by a younger disabled man, spurred action from Congress, which directed HUD and the U.S. Government Accountability Office (GAO) to examine these issues.⁵³

HUD released a report in 1991 that cited the lack of tools (e.g., screening policies) as a barrier to PHAs' successful management of housing with these mixed populations and suggested that using "preference policies" — which prioritize certain populations, are adopted at the PHA level, and determine public housing applicants' placement on waiting lists — that prioritize seniors in the selection and admissions process. The report also suggested that offering vouchers for non-elderly people with disabilities could provide an alternative to housing the groups together in senior housing properties.⁵⁴ Preference policies can be used for many population groups, such as applicants who live in a specified geographic area, people with disabilities, seniors, and victims of domestic violence.⁵⁵

A 1992 GAO report highlighted challenges identified by public housing administrators in managing issues among younger individuals with mental health disabilities and found wide variation in the availability of mental health services coordinated or provided on-site by PHAs.⁵⁶ The GAO recommended that HUD and PHAs develop cooperative agreements with service providers.⁵⁷

Both houses of Congress convened hearings in 1992 to examine the issues of mixed-population housing for seniors and people with disabilities.⁵⁸ Advocates for people with disabilities were concerned that providing senior-only housing would result in segregation of and a decline in affordable housing for individuals with disabilities.⁵⁹ Advocates for seniors argued that low-income seniors should have the same choice to reside in age-distinct housing as their middle- and upper-income counterparts.⁶⁰

In 1992, in response to this ongoing debate, Congress passed the Housing and Community Development Act. The act amended the Housing Act, establishing separate definitions of "elderly family" and "disabled family" and giving PHAs the option to designate housing properties, or a portion of them, for occupancy by senior families, disabled families, or a mix of both. It also provided set-aside funds through the Section 811 program for housing vouchers for disabled families and expanded the authority of PHAs to hire service coordinators.⁶¹

The 1992 act also directed HUD to appoint a task force to develop recommendations regarding occupancy and management issues in public and assisted housing to help PHAs meet the challenges of managing mixed-population properties.⁶² Over 14 months, the Public and Assisted Housing Occupancy Task Force held meetings, conducted public hearings, produced a preliminary report, received more than 370 public comments, and issued a final report to HUD and Congress with recommendations for mitigating occupancy and management issues and for promoting best practices for housing low-income families, including seniors and people with disabilities.⁶³

In 1994, HUD established the designated housing rule (24 CFR 945), setting the requirements and procedures by which PHAs could designate housing for seniors and people with disabilities. The rule also directed PHAs to use a wide range of resources to meet the housing and supportive service needs of households that may not be eligible for housing in a given public housing project due to its designation (e.g., non-elderly people with

disabilities who could not live in a senior-only project).⁶⁴ Such resources include other housing units a PHA owns, controls, or will obtain in the near future.

In 1996, Congress passed the Housing Opportunity Program Extension Act, superseding 24 CFR 945, significantly revising the requirements for PHAs seeking approval to designate housing and reducing HUD's role in the approval process. Since that time, HUD has issued a series of notices to guide PHAs in their use of the rule until the regulation is revised.

To designate housing for senior or disabled families, PHAs must develop a "designated housing plan" and receive approval from HUD. Plans must contain information on the following:⁶⁵

1. The jurisdiction's housing goals for the next five years and evidence that the designation is necessary to achieve those goals.
2. The anticipated housing needs of low-income populations in the jurisdiction over the next five years and evidence that the designation is necessary to meet those needs.
3. The populations of low-income seniors and individuals with disabilities in the jurisdiction, including the numbers of those needing affordable housing and those on waiting lists.
4. The supportive services that are provided in the projects to be designated.
5. The housing resources that will be available to families in the nondesignated group.

Once approved by HUD, a plan is considered "active" and allows the PHA to designate a housing project, or portion thereof, for seniors, non-elderly people with disabilities, or both for five years, with an option to renew by submitting an updated plan every two years. HUD's Office of Public and Indian Housing reviews all new plans with input from the PHA's local HUD Public Housing Field Office, and renewals go directly to the local office.⁶⁶

HUD rarely allows the designation of an entire housing project as disabled-only because it conflicts with the goals of desegregation and community integration. As described in the rule, "HUD will approve designated projects for disabled families only if there is a clear demonstration that there is both a need and a demand by disabled families for such designation. In the absence of such demonstrated need and demand, PHAs should provide for the housing needs of disabled families in the most integrated setting possible."⁶⁷ PHAs are also prohibited from designating housing for individuals with a specific disability type.

As previously described, many PHAs managed and operated housing properties with a mixed population of seniors and non-elderly people with disabilities before development of the rule, and such projects do not require HUD approval to continue operating as mixed-population housing. However, some PHAs do include properties with mixed populations in designated housing plans for various reasons, including to dedicate specific proportions of units for seniors and for people with disabilities (e.g., 80 percent for seniors and 20 percent for people with disabilities). These PHAs also must comply with 24 CFR 960, Subpart D, which requires them to give equal preference to senior and disabled families when prioritizing admission to mixed-population projects.⁶⁸ In addition, PHAs must first offer units with special accessibility features to people with disabilities who need such accommodations.

How public housing authorities use the designated housing rule

PHAs continually face decisions about how best to allocate the limited supply of affordable housing given the demand for units among all family types, including senior and disabled families, within their jurisdictions. The designated housing rule is just one of the tools PHAs use to provide housing for seniors and people with disabilities. Other strategies include setting preference policies for their public housing portfolios and Housing Choice Voucher programs to prioritize seniors or people with disabilities.

The data presented in this section are based on the HUD Designated Housing Status Report from April 2014.⁶⁹ Currently, 128 PHAs in 37 states and the Virgin Islands have active designated housing plans, comprising 63,806 units, of which approximately 91 percent are designated for senior families, 4 percent for disabled families, and 5 percent for a mixed population. Designated units typically are not used to provide housing for senior or disabled households with children—the vast majority (96 percent) of units are studios or one bedroom—but a PHA could choose to designate larger units for these families if local demand is sufficient. Households in which neither the head of household nor spouse of the head of household is a senior or a person with a disability (e.g., families with a child with a disability or those that are caring for a senior family member) are not eligible for designated housing, per HUD’s definitions.

PHAs that use the rule typically own or manage more units than those that do not, are located in metropolitan areas, and primarily designate units for seniors only:⁷⁰

- More than 40 percent of authorities with more than 3,000 units use the rule, compared with less than 1 percent of those managing fewer than 100 units. (See Table 2.)
- Senior-only units account for 90 percent of the designated units.⁷¹
- Designated housing units are located across the country, with a concentration in large metropolitan areas. PHAs that use the rule to designate units for non-elderly people with disabilities or for mixed populations are located primarily on the East Coast and in the Chicago region. (See Figure 1.)

Table 2

Nationwide, 128 Public Housing Authorities Manage More Than 60,000 Designated Units

Distribution of designated housing plans and units by PHA size

PHA size	PHAs by plan status			Designated unit types		
	Total (#)	Active (%)	No active plan (%)	Senior	Disabled	Mixed
≤100	1,281	0.6	99.4	335	30	16
101-500	1,156	3.2	96.8	7,743	160	39
501-1,000	181	11.6	88.4	3,014	70	60
1,001-3,000	124	27.4	72.6	11,708	548	49
3,001-7,500	35	48.6	51.4	9,509	96	2,090
7,501+	10	50.0	50.0	24,818	1,398	986
Total	2,787	4.4	95.6	57,127	2,302	3,240

Sources: Data from HUD *Designated Housing Status Report* (as of April 11, 2014); HUD Geospatial Data and Map Services, Assisted Housing Properties

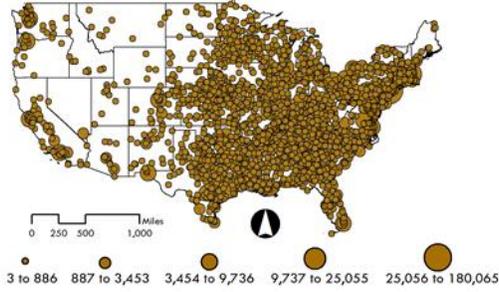
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Figure 1

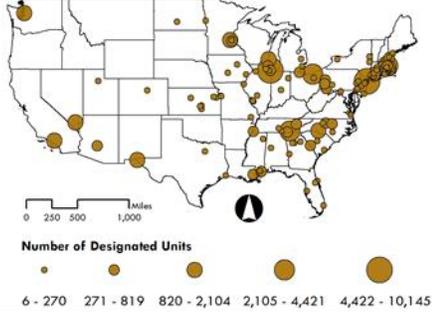
Designated Housing Units Are Concentrated in Large Metropolitan Areas

Location of public housing and designated units by type

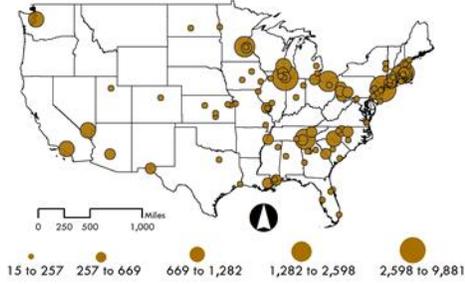
Total Public Housing Units



Total Designated Public Housing Units



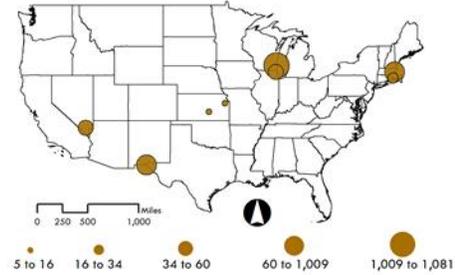
Designated Units: Senior



Designated Units: Disabled



Designated Units: Mixed



Sources: Data from HUD *Designated Housing Status Report* (as of April 11, 2014); HUD Geospatial Data and Map Services, Assisted Housing Properties

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Many of the PHAs without active plans operate properties where a vast majority of residents are seniors or people with disabilities. After the 1996 statutory changes (see Page 17), PHAs were exempt from submitting designated housing plans if they intended to continue administering these properties for mixed populations. Additionally, PHA preference or occupancy policies may result in properties that are predominately senior or mixed. Among PHAs without active plans, an estimated 1,012 properties containing 122,024 units are operated as senior-only, and 98 properties containing 14,982 units are operated as mixed or disabled-only.⁷² (See Table 3.) Therefore, although designated housing units represent less than 6 percent of all public housing nationwide, the HUD Designated Housing Status Report data likely underestimate the actual number of properties housing predominantly seniors or people with disabilities.

Table 3

PHAs Without Active Designated Housing Plans Still Might Target Properties to Specific Populations

Estimate of properties operating as mixed or disabled-only or as senior-only

Property characteristics	PHAs without an active designated housing plan	
	Properties	Units
≥ 75% 1-bedroom units	1,361	165,709
Senior-only	1,012	122,024
Mixed-population or disabled-only	98	14,982

Note: See Appendix C for a detailed description of the methodology and limitations of these estimates.

Sources: Data from HUD *Designated Housing Status Report* (as of April 11, 2014); HUD geospatial database for PHA properties.

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Intersecting affordable housing programs and financing mechanisms

Across the United States, HUD subsidizes more than 5 million affordable units, which house 4.6 million low-income families, comprising more than 10 million individuals.⁷³ Public housing is just one of several affordable housing resources available in communities nationwide: Many other programs intersect with the designated housing rule and provide additional tools and resources that PHAs and their partners can leverage to meet the needs of seniors and people with disabilities.

PHAs receive federal dollars to manage and maintain public housing developments from two funding streams, the Public Housing Operating Fund and the Public Housing Capital Fund.⁷⁴ The Operating Fund is intended to make up for the gap between rental revenue and the maintenance and operating costs of a given public housing development.⁷⁵ The Capital Fund supports improvements (e.g., replacement of heating and cooling systems) and renovations.⁷⁶ Funding for operating and capital improvement, however, has not kept pace with need: The estimated backlog is nearly \$26 billion.⁷⁷ Many public housing units are uninhabitable and beyond repair due to deferred and forgone maintenance, and HUD estimates that between 10,000 and 15,000 units are permanently lost from public housing stock each year.⁷⁸

To address this problem, PHAs often leverage other public and private funding, such as the Rental Assistance Demonstration (RAD) program and the Low-Income Housing Tax Credit Program (LIHTC), to support the rehabilitation of their properties or to replace lost units. Launched in 2013, RAD is intended to preserve public housing units at risk of becoming uninhabitable due to deferred maintenance.⁷⁹ Through a competitive process, PHAs with severely distressed properties may convert their current rental assistance funds to long-term, project-

based housing vouchers or to project-based rental assistance contracts—contracts with private owners of multifamily rental housing—and use other financing (e.g., LIHTC) to support rehabilitation and preservation.⁸⁰

The LIHTC is the primary means by which affordable rental housing is built in the United States and is an important source of funding for rehabilitation and redevelopment of existing affordable housing projects. The program creates partnerships among the federal government, state, and, sometimes, local governments; for- and nonprofit developers; and private investors.⁸¹ PHAs contribute capital funds and pay the operating costs of public housing units within the property once the development or rehabilitation is complete. According to staff in HUD’s Office of Public and Indian Housing, from 2011 through 2013, approximately half of new plans seeking to designate housing units for seniors or people with disabilities were for properties developed or rehabilitated through LIHTC, and most of those plans sought a senior-only designation.

PHAs also are responsible for managing and administering the Housing Choice Voucher program and often use it to provide housing for families not served under a designation. The program helps very low-income households afford housing in the private rental housing market: Unlike public housing, where assistance is tied to a specific publicly owned unit, the voucher program provides the assistance to the household, which has the flexibility to choose where to live.⁸² According to recent HUD data, the program subsidizes more than 2.3 million units, housing more than 5.3 million people.⁸³ PHAs typically use waiting lists or housing lotteries to manage demand for vouchers and may also establish preference systems to target specific groups, such as seniors, people with disabilities, veterans, and the homeless. Further, PHAs can choose to attach some vouchers to specific housing units, called “project-basing,” to make units in a specific, private—often nonprofit affordable housing—development or service-rich area affordable to residents with extremely low incomes. Senior families and non-elderly disabled families represent 21 percent and 28 percent, respectively of all households with Housing Choice Vouchers.⁸⁴

Several HUD programs also focus on developing and providing housing and supportive services for low-income seniors and people with disabilities, including the Section 202 Supportive Housing for the Elderly program, the Section 811 Supportive Housing for People with Disabilities, the Shelter Plus Care program, and the Housing Opportunities for Persons with AIDS (HOPWA) program.⁸⁵

For more details on these intersecting affordable housing programs and financing mechanisms, see Appendix B.

Potential changes to the designated housing rule

This section describes two scenarios that outline actions HUD could take in revising the designated housing rule. These scenarios were developed in consultation with advisory committee members, PHA staff, and key informants with expertise on a range of issues related to designated housing. Subsequent chapters of this HIA consider potential effects of these scenarios regarding factors important to health and related outcomes, including housing affordability, fair housing, housing as a platform for supportive services, resident social environment, housing accessibility, and neighborhood characteristics. These scenarios are not mutually exclusive, and HUD could implement actions from each.

Scenario 1: Housing trends

HUD would use the rule-making process to address trends in affordable housing development or rehabilitation and public housing financing that interface with the designated housing rule. The majority of designated housing plans would still seek designation for senior-only properties. Younger people with disabilities mainly would be offered alternative affordable housing resources through nondesignated public housing and tenant- and project-based Housing Choice Vouchers. HUD also would provide clarity to PHAs regarding how designated housing plans should consider affordable housing demand among elderly or disabled households. Specifically, HUD would do the following:

- Continue to consider nondesignated public housing and tenant- or project-based vouchers as comparable resources and to approve plans for senior-only designations where they are the main alternatives for non-elderly people with disabilities, even when they are not necessarily allocated specifically for younger people with disabilities.
- Require PHAs to seek approval for designated housing plans before completing any mixed-finance transaction (e.g., rehabilitation or new construction through LIHTC) involving designated units.
- Clarify that designated housing plans are no longer required after PHAs convert designated properties under the RAD program. RAD requires a one-for-one replacement of units, and tenants have the right to return to the renovated property if they are displaced during RAD-supported construction.
- Stop accepting near-elderly families' housing demand (head of household or spouse is 50 to 62 years old) as part of the justification for a senior-only designation and, instead, require PHAs to demonstrate sufficient demand from elderly families only.
- Clarify that PHAs are prohibited from excluding:
 - Elderly families that include children or other non-elderly members from senior-only and mixed-population designated housing.
 - Disabled families that include children or other nondisabled members from disabled-only and mixed-population designated housing.

Scenario 2: Partnership

HUD would use the rule-making process to encourage coordination of resources and collaboration among affordable housing and supportive service providers and those implementing state and local initiatives to address fair housing and homelessness. Specifically, HUD would do the following:

- Encourage PHAs to demonstrate in their plans the development and implementation of an affirmative outreach strategy that aligns with state and local efforts to provide housing coordinated with services and to end homelessness and that targets potential tenants, such as those making the transition out of institutions, who are least likely to apply for housing, to make them aware of affordable housing opportunities. PHAs would need to demonstrate that their strategies:

- Promote collaboration with state Medicaid redesign efforts (e.g., alignment of affordable housing and health resources through connections with Home and Community-Based Service waivers, the Money Follows the Person (MFP) demonstration program, Federally Qualified Health Centers, Community Mental Health Centers, area offices on aging, and independent living centers).
- Support the implementation of state *Olmstead* plans and responsiveness to related litigation, if applicable. The 1999 Supreme Court decision *Olmstead v. L.C.* affirmed that unjustified segregation of individuals with disabilities is prohibited by the Americans with Disabilities Act (ADA) and that people with disabilities have the right to receive services that support everyday life in integrated, community-based housing.
- Support state and local plans to end chronic homelessness.

The rule operates within a broader context of state, local, and PHA planning efforts—such as the Consolidated Plan and Annual Action Plan—which inform designated housing plans. In addition, many policies and programs that aim to promote affordable housing rehabilitation and development or coordination with supportive services also influence designated housing plans. Therefore, these rule-making scenarios similarly would be undertaken within the context of broader PHA planning efforts, programs, and policies.

Methods

As defined in 2011 by the National Research Council of the National Academies, “HIA [health impact assessment] is a systematic process that uses an array of data sources and analytic methods and considers input from stakeholders to determine the potential effects of a proposed policy, plan, program, or project on the health of a population and the distribution of those effects within the population. HIA provides recommendations on monitoring and managing those effects.”⁸⁶

To support the goal of demonstrating how HIA could be used in the context of a federal rule-making process, the team employed data sources, methods, and a stakeholder-input process that could be replicated and scaled to fit the scope, resources, and timeline of future agency efforts to incorporate health considerations in decision-making. For example, the quantitative analysis of this assessment relied on national, publicly available data sources, many of which are maintained and used by HUD to inform its programmatic and policy efforts. For qualitative data, the HIA team used forums, such as resident advisory boards, that PHAs must form to gather tenant input on annual plans and other policies, and engaged with PHA membership organizations and advocacy groups that are frequent partners in HUD policymaking.

The intent of this methodological approach is to enable HUD and other federal agencies to replicate and bring to scale aspects of the HIA process, using existing data sources and avenues for stakeholder input, to incorporate health considerations into future decision-making. In particular, even with limited time, resources, or capacity, HUD could partner with local agencies and organizations and use the same existing forums tapped by the HIA team to ensure that stakeholder perspectives are captured and considered in other rule-making efforts.

This section describes the HIA process and summarizes the analysis conducted at each step.

HIA process

An HIA is conducted in six steps, which are briefly described in Figure 2.⁸⁷ Engaging stakeholders—including those who may be affected by a policy, project, or program decision; policymakers; and others with an interest in the outcome—is essential to conducting an HIA and occurs throughout the process.

Figure 2

The Stages of a Health Impact Assessment

HIA is a 6-step process that encourages public input throughout



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Step 1—Screening

During the screening phase, the HIA team and stakeholders determine which proposal(s) will be assessed. In this instance, the HIA team sought to support federal agencies in piloting the use of HIA in the context of a rule-making process as an example of implementing the U.S. surgeon general’s National Prevention Strategy, which aims to guide the United States “in the most effective and achievable means for improving health and well-being” by prioritizing prevention and emphasizing evidence-based recommendations.⁸⁸ The strategy highlights HIA as an approach to use in pursuit of the ultimate objective: reducing the burden of the leading causes of major illnesses and preventable death. Through work with the surgeon general’s National Prevention Council, the Centers for Disease Control and Prevention, and the Health Impact Project, staff from HUD identified the designated housing rule as an opportunity to demonstrate the value of HIA in the federal rule-making process because of the anticipated timing of the rule-making, its potential importance to health, and interest from stakeholders in understanding the health implications.⁸⁹

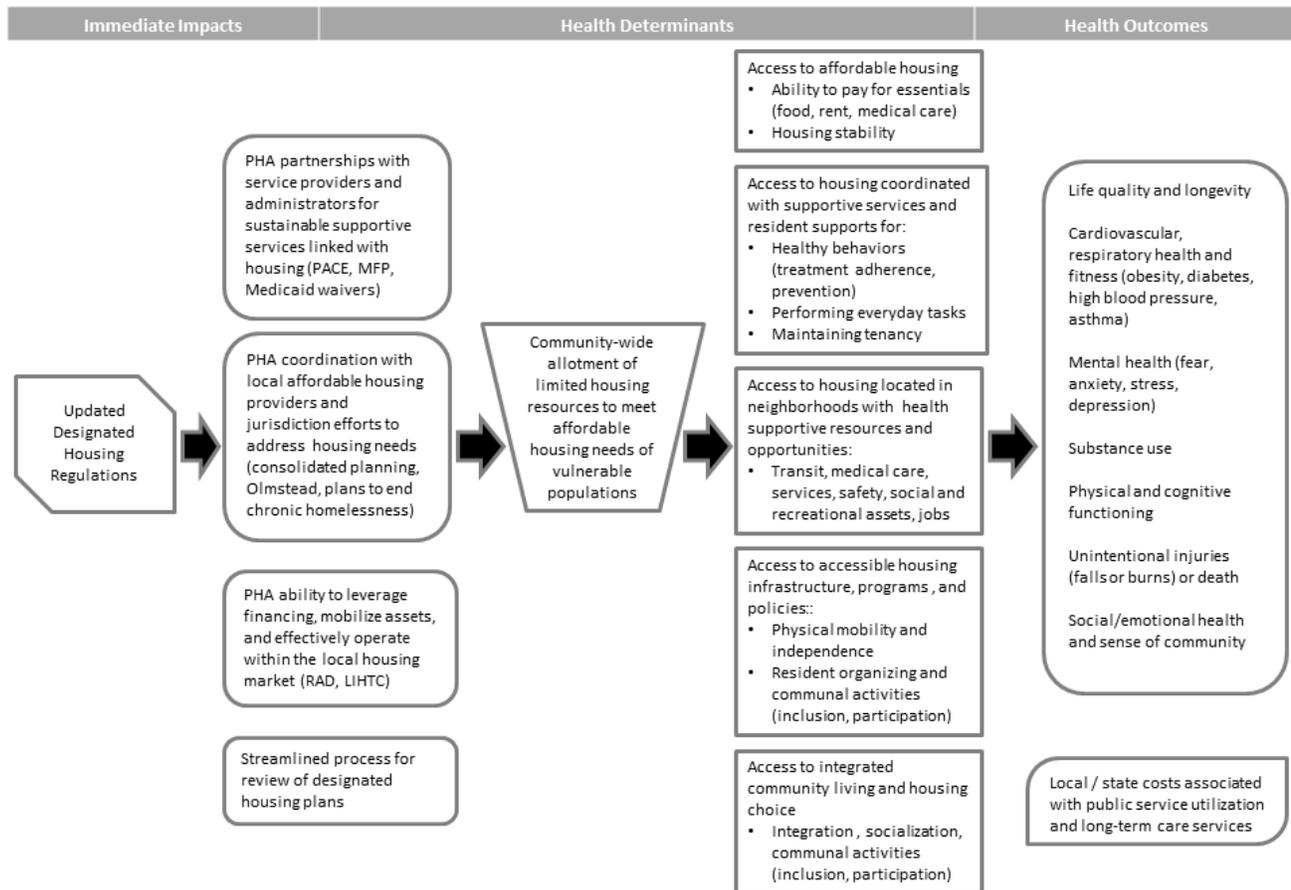
Step 2—Scoping

In the scoping phase, the HIA team and stakeholders identify the potential health effects that will be considered and develop a plan for completing the assessment, including specifying their roles and responsibilities. Scoping generally begins with a broad consideration of all potential effects and then focuses on those deemed most likely to have a significant impact on health. For the designated housing rule HIA, this phase began with identifying those factors important to health that could be affected by changes to the rule. In consultation with an advisory committee and key informants, the HIA team identified six core factors, or health determinants, related to the rule: housing affordability, housing design and accessibility, housing discrimination and choice, housing as a platform for supportive services, neighborhood characteristics, and resident social environment. (For information on the committee and informants, see Stakeholder engagement on Page 29.) The HIA team used these factors to construct a set of hypothetical pathways through which changes to the designated housing rule could affect health (see Figure 3), which in turn, were used to develop detailed research questions. (See Current conditions, Page 35.)

Figure 3

Health Pathways Related to the Designated Housing Rule

Hypothetical connections between the rule-making and health



A pathway diagram is a tool used to display the hypothetical links between a proposed policy and health that is often used in HIA practice to guide research and analysis. This pathway diagram maps out the possible health outcomes that could result from changes to the designated housing rule.

Step 3—Assessment

During this phase, a proposal is evaluated and its most likely health effects are identified, using a range of data sources, analytic methods, and stakeholder input to analyze the research questions developed during scoping. This section provides a summary of the assessment approach. For a detailed description, see Appendix C:

Scenarios assessed

The findings reflect the assessment of the health implications of two sets of actions HUD could take in the designated housing rule-making:

1. **Housing trends.** Address trends in affordable housing development or rehabilitation and provide clarity about how PHAs should demonstrate demand among senior or disabled households for designated properties in their plans.
2. **Partnership.** Encourage collaboration and coordination of resources among providers of affordable housing and supportive services and those implementing state and local initiatives to address fair housing and homelessness.

Assessment approach

- A. *Systematic literature review:* The HIA team conducted an expedited systematic review of the peer-reviewed literature and searched for relevant reports and publications outside of academic journals in Google Scholar and subject-specific sources, such as HUD USER, the Centers for Disease Control and Prevention, and the AARP Public Policy Institute. In total, the team reviewed more than 350 reports, peer-reviewed articles (including systematic reviews, meta-analyses, and reviews), conference papers, books, and other resources such as fact sheets and websites.
- B. *Analysis of designated housing rule use:* The HIA team used HUD’s Designated Housing Status Report data, Assisted Housing Properties database, and Resident Characteristics Report (RCR) data to examine the characteristics of PHAs with and without active designated housing plans. The total number of housing authorities in the analysis—2,787—reflects the number of records in the Assisted Housing Properties database.
- C. *Analysis of health factors and outcomes:* The HIA team used data from the 2012 Behavioral Risk Factor Surveillance System (BRFSS) to examine health factors and outcomes among low-income seniors and people with disabilities as a proxy for those who could be eligible for or might be residing in designated housing. The final analysis included data on 475,687 respondents across 1,876 counties.
- D. *Estimation of housing utilization and demand:* The HIA team compared the extent to which PHAs with and without active designated housing plans are meeting the demand of key population groups, including seniors and non-elderly people with disabilities. To quantify this, the team estimated the “remaining demand” for affordable housing at the county level—how much demand each PHA faces after accounting for available units from all other sources in the same county.⁹⁰ For example, if a PHA is located in a county with 20 senior households in need of affordable housing and five appropriate units supplied from other sources, that PHA faces a remaining demand of 15 units. Data sources for analyzing this relationship included the RCR, Comprehensive Housing Affordability Strategy (CHAS), and American Community Survey (ACS).
- E. *Estimation of public housing properties that house predominantly seniors and people with disabilities:* Many PHAs that do not have active plans operate properties where most residents are seniors or people with disabilities. Because HUD data do not explicitly capture designation status at the public housing property level, the HIA team cross-referenced data on resident demographics in public housing properties from the Assisted Housing Properties database with designated unit data from HUD’s Designated Housing Status Report to estimate the number of public housing properties that house predominantly seniors or a mixed

population of seniors and people with disabilities that is not designated. This analysis was used to estimate the number of these properties that currently are not captured in HUD's records. The analysis defined properties as having at least 75 percent one-bedroom units and:

- **Senior-only properties.** Residents who are predominantly (at least 75 percent of residents) seniors or near-elderly (ages 51 and older).
- **Mixed-population or disabled-only properties.** Fewer than 75 percent senior or near-elderly (ages 51 and older) residents and 80 percent or more of residents under the age of 62 who are disabled.

- F. *Estimation of neighborhood conditions:* Using the methods described above to define senior-only and mixed-population or disabled-only properties, the HIA team identified and calculated values for seven indicators of neighborhood conditions at the PHA property level. The purposes of this analysis were to: (1) describe the neighborhood conditions of average senior and disabled residents in PHAs with and without active designated housing plans; and (2) examine differences in neighborhood conditions within the same PHA for residents of senior-only properties compared with mixed-population or disabled-only properties and with other property types. Neighborhoods were defined as census block groups or tracts that intersect a half-mile buffer around PHA properties. The HIA team also used data from the Federal Bureau of Investigation's Uniform Crime Reporting Program Data and the U.S. Department of Health and Human Services' (HHS) Health Resources and Services Administration Data Warehouse to compare crime rates and the number of community health centers within counties where PHAs with and without active plans operate.
- G. *Qualitative case study research:* Stakeholders, including PHA staff and residents, served as an important source of data for this study because they possess expertise and community data that can ground the HIA in the lives of affected populations.⁹¹ These data also supplement the systematic literature review and quantitative data. In consultation with HUD's Office of Public and Indian Housing and the advisory committee, the researchers invited three PHAs—the Housing Authority of the City of Milwaukee, Denver Housing Authority, and Cambridge Housing Authority—to serve as case studies. The HIA team conducted 16 focus groups and interviews with a total of 135 staff members and community partners, including 25 PHA leaders and administrators, 45 property managers, 55 resident service coordinators, and 10 community service providers, at the case study sites.⁹² In addition, the team conducted 11 focus groups with 147 senior and disabled public housing residents and summarized key themes from the interviews and focus groups using ATLAS.ti, a data management and analysis program. The Johns Hopkins Bloomberg School of Public Health Institutional Review Board approved all qualitative data-collection procedures.
- H. *Interviews and focus groups with public housing and health administrators:* In addition to the case studies, the HIA team conducted semi-structured focus groups and interviews with staff from 26 PHAs across the country to capture perspectives from PHAs of varying sizes and geographic locations, as well as those without active designated housing plans. The team also conducted a semi-structured focus group with representatives from five MFP demonstration states to learn more about efforts to help people with disabilities make the transition from institutional settings into integrated affordable housing coordinated with services. These representatives were included because MFP represents a potential model for the alignment of affordable housing and supportive services for seniors and people with disabilities.

Step 4—Recommendations

The recommendations phase of the HIA suggests possible actions to minimize identified health risks and to maximize potential health benefits. Based on the impacts identified during the assessment phase, the HIA team consulted with the advisory committee, key informants, PHA staff, and public housing residents to develop the recommendations.

Step 5—Reporting

This phase involves dissemination of information to a wide range of stakeholders. Reporting occurs throughout the process and is not limited to the final HIA report. According to the National Research Council guidance on HIAs, it is “in the interest of decision-makers and the HIA team to keep in constant communication throughout the HIA process so that emerging results can be incorporated into the policy.”⁹³ The HIA team engaged in these efforts through interactions with staff and leadership from HUD’s Office of Public and Indian Housing and Office of Fair Housing and Equal Opportunity, the advisory committee, staff from the case study sites, residents, key informants, and other stakeholders throughout the HIA process. The team intends to broadly disseminate this final report and submit it to HUD as regulatory comments.

Step 6—Monitoring and evaluation

This phase involves evaluating the HIA according to accepted standards of practice and monitoring and measuring the impact of the HIA on decision-making. The HIA team established evaluation criteria and conducted two conversations to assess the process—the first after the scoping phase and the second following development of recommendations—and highlighted within the recommendations opportunities for tracking and monitoring the health impacts of changes to the designated housing rule once implemented.

Stakeholder engagement

Stakeholder engagement continues throughout an HIA and is important for informing all steps of the assessment. Below are the components of stakeholder engagement conducted for this HIA.

- a. **Advisory committee.** The HIA team convened a diverse, 11-member advisory committee selected for their expertise in housing policy, fair housing, homelessness, housing administration, and issues that may affect older adults or individuals with disabilities. Committee members also were selected for their ability to speak to a range of perspectives related to designated housing. The committee met in person twice, once during scoping and again during assessment. The HIA team also sought the committee’s input at key points in the process via email, conference calls, and in-person meetings with individual committee members. The committee was not a decision-making body; although the committee’s advice was given substantial weight, the team had final authority and responsibility for the HIA process, findings, and recommendations.
- b. **Expert consultation.** The team consulted approximately 30 key informants on housing policy, fair housing, affordable housing finance, and housing administration, all of whom were selected because of their research and knowledge in these areas. These experts were engaged in person and by telephone to share insights on designated housing policy and history, to offer suggestions on the assessment’s scope and analyses, and to provide feedback on the findings.
- c. **Policymaker engagement.** The HIA team consulted several HUD staff members involved in designated housing rule-making, including from HUD’s Office of Public and Indian Housing and HUD’s Office of Fair Housing and Equal Opportunity. The team also conferred with staff at HHS and the Centers for Medicare & Medicaid Services.
- d. **Focus groups and interviews.** As described above and in Appendix C, the HIA team conducted semi-structured focus groups and interviews with PHA leadership, property managers, resident service coordinators, key partner organizations (e.g., service providers), and residents from three case study sites to learn about their experiences with designated housing. The team also conducted supplemental focus groups and key informant interviews with a sample of administrators from PHAs of varying sizes and geographic locations and those without active designated housing plans. The team also held a focus group with representatives from MFP demonstration sites regarding efforts to help people with disabilities make the transition out of institutions and into home and community-based settings.

Current health factors and outcomes for public housing-eligible or resident households

This section describes the demographic characteristics, socioeconomic circumstances, and a range of health issues of people eligible for or residing in public housing, including those living in designated housing. Evidence suggests that people who live in public housing have higher rates of certain health issues compared with the general population, including obesity, hypertension, mental health problems, limited mobility, and difficulty performing everyday tasks. Understanding these challenges was critical to informing the analysis in this HIA and to developing recommendations that can help HUD improve health outcomes for public housing residents. These findings, however, do not indicate a causal relationship between living in public housing and poor health.

Research question 1: What are the socioeconomic characteristics of households eligible for or residing in public housing, and designated public housing, in particular?

HUD-assisted households

Eligibility for subsidized housing typically is determined by household income and ability to maintain tenancy, meaning that the individual likely can meet the terms of the lease agreement and does not have a current substance abuse issue or a history of violence that could affect the health and safety of other residents. Many people who are homeless or residing in institutions may not have proof of their ability to maintain tenancy—for example, they may not have an existing or former lease agreement—but they still may be eligible for housing assistance.

Across all HUD-subsidized housing programs in 2012, the average household had an annual income of \$12,664, well below the 2012 federal poverty level for a two-person household of \$15,130, and the average household spent \$297 per month on rent.⁹⁴ On average, HUD-assisted families live in neighborhoods where racial and ethnic minorities make up 51 percent of the population and where 23 percent of the population is in poverty.⁹⁵

Households receiving rental assistance include single adults, families with children, seniors, and younger people with disabilities:

- Seniors and people with disabilities head approximately 56 percent of households receiving rental assistance.⁹⁶
- Roughly 34 percent of households receiving rental assistance are families with children that are headed by people younger than 62 who do not have disabilities.⁹⁷
- Among senior and disabled households receiving assistance, nearly 800,000 senior families—more than half of which are senior disabled families (450,000)—and more than 830,000 younger disabled families are in either public housing or the participating in the Housing Choice Voucher program, the two main programs administered by PHAs.⁹⁸
- Senior families represent 31 percent of all households in public housing and 21 percent of households with a Housing Choice Voucher.⁹⁹
- Younger disabled families represent 21 percent of all households residing in public housing and 28 percent of all households with a voucher.¹⁰⁰
- Most families in public housing have one or two members (46 percent and 21 percent, respectively), and nearly half (49 percent) have lived in public housing for five years or more.¹⁰¹

Members of disabled households in public housing have a range of disabilities, including physical, mental, and sensory disabilities, such as vision or hearing impairments. HUD does not define alcohol or drug dependency as a disability, so addiction does not qualify a resident for a disabled unit.¹⁰² Although senior and disabled

households are considered distinct populations for the purpose of this HIA, significant overlap exists between these two groups. Households whose head or spouse is at least 62 years of age are considered by HUD to be senior households, though they may also be headed by individuals with disabilities. In fact, approximately 46 percent of senior households in public housing have either the head or spouse with a disability compared with 31 percent of non-elderly households.¹⁰³ The incidence of disability increases with age, and national projections suggest that the number of seniors who also have a disability will grow sharply over the next several decades and, at the same time, younger disabled households living in HUD-subsidized units will age.¹⁰⁴

People with disabilities often have functional impairments that make it difficult to perform everyday tasks. Difficulty walking (25 percent), problems with memory or cognition (15 percent), and difficulty running errands (14 percent) are the most common functional challenges among households receiving rental assistance.¹⁰⁵ Individuals who have difficulty performing daily activities outside the home, such as running errands, also frequently report trouble with everyday tasks inside the home, such as bathing and dressing.¹⁰⁶ Roughly 1 in 4 adults age 50 or older and 2 in 3 adults age 85 or older report hearing, vision, cognitive, or mobility challenges.¹⁰⁷

Designated public housing residents

Ninety-one percent of designated housing units are senior-only, and so most residents in designated public housing are seniors. Among the designated housing residents who participated in focus groups for this HIA, the average age was 68 years, with 25 percent age 75 or older.¹⁰⁸ A small share (7 percent) was younger than 55 years. Most lived alone (81 percent) and had lived in their public housing unit for five years or more (62 percent). These characteristics, however, are not necessarily representative of designated housing residents nationally.

Data on demographic characteristics of designated housing residents are lacking. However, residents of the largest PHAs—which are most likely to use the designated housing rule—generally reflect the relative diversity of the major metropolitan areas where they are located: They are more likely to be black or Hispanic compared with public housing residents nationally.¹⁰⁹ It is probable that designated housing residents similarly reflect the characteristics of these major metropolitan areas.

Many seniors and people with disabilities who are eligible for or residing in designated public housing live on fixed incomes, often Social Security or Supplemental Security Income (SSI), the needs-based federal income assistance program for seniors and people with disabilities.¹¹⁰ In 2012, the average annual income of a single person whose only income was SSI payments was \$8,714 (\$726 per month), nearly \$2,500 below the 2012 federal poverty level of \$11,170 for a one-person household.¹¹¹ Social Security makes up all or most of the monthly income of nearly 75 percent of single senior households.¹¹² Although data on the income sources of designated housing residents are unavailable, 55 percent of all households in public housing received income through Social Security, SSI, or a pension.¹¹³

Low-income seniors and people with disabilities

Data suggest that millions of seniors and people with disabilities who do not currently receive any housing assistance may be eligible for public housing based solely on their income. According to recent census statistics:

- An estimated 3.9 million seniors—9.1 percent of people age 65 or older—live below the poverty level.¹¹⁴
- Older women are more likely than their male peers to live in poverty, 11 percent and 6.6 percent, respectively.
- Poverty rates for seniors are higher than national averages in major cities (12.5 percent) and in the South (10.2 percent) and higher among those who live alone (16.8 percent) compared with those who live with families.¹¹⁵

- Among the disabled population ages 18 to 64, nearly 4.3 million (roughly 30 percent) live below the poverty line, compared with roughly 12 percent among their peers without disabilities.¹¹⁶
- In 2012, the median income of disabled households was \$25,974, less than half that of families with a head of household who did not report a disability.¹¹⁷

Education and employment

Education and employment are important determinants of health and well-being, and are critical for achieving upward economic mobility. Adults with disabilities are less likely to be employed and have a more difficult time finding employment than individuals without disabilities.¹¹⁸ For example, employment rates for those with disabling mental illness are between 32 and 61 percent, compared with 76 to 87 percent among those without any reported mental illness.¹¹⁹ Having a family member with a disability limits the earning potential of any household but especially one-person households.¹²⁰

Additionally, households with heads who have lower levels of education are more likely to remain or move deeper into poverty compared with those whose heads have more education.¹²¹ Data from a study of Boston public housing residents indicate that only 36 percent had attained an education beyond high school, compared with 76 percent of other area residents.¹²² A survey conducted for this HIA of seniors and people with disabilities residing in designated public housing found that 48 percent had a high school degree or less.¹²³

Poverty, education, employment, and economic mobility influence health outcomes. See Housing affordability and health on Page 35, for an in-depth exploration of the health effects of poverty and the ability to meet basic needs such as affordable housing, adequate food, and access to services.

Research question 2: What are the prevalent illnesses and health risks for this population?

Evidence suggests that public housing residents and eligible individuals face a variety of health issues and do so at greater rates than Americans in general.¹²⁴ They are more likely to live in poverty and to be members of racial or ethnic minority groups, which are widely recognized in the public health literature as independent risk factors for poorer lifetime health outcomes.¹²⁵ A systematic review of the literature found few studies comparing public housing residents with other low-income populations or local area residents. The HIA team identified three studies that provided the best data on the overall health status of public housing residents:

- The Housing Opportunities for People Everywhere (HOPE VI) panel study, which follows residents in five housing communities across the country before and after redevelopment through the HOPE VI Program.¹²⁶
- The Boston Behavioral Risk Factor Surveillance System (Boston BRFSS) study, an analysis of population-based survey data to describe Boston public housing residents' health.¹²⁷
- The New York City Housing Authority Senior Survey, a survey of senior New York City public housing residents.¹²⁸

Because no research has specifically examined the health of designated housing residents, the HIA team analyzed national BRFSS data from counties where housing authorities operate to examine health issues among low-income seniors and people with disabilities as a proxy for those who could be eligible for or residing in designated housing.

Self-rated health

Residents in public housing are more likely to report being in fair or poor health compared with other area residents.¹²⁹ Nearly 33 percent of public housing residents who participated in the Boston BRFSS reported having fair or poor health status, compared with approximately 9 percent of other area residents.¹³⁰ Another study found that, relative to other seniors in the community, elderly public housing residents were twice as likely to

rate their health as fair or poor.¹³¹ And nearly 4 in 10 seniors or disabled residents in designated housing surveyed for this HIA said they were in fair or poor health.¹³²

Evidence suggests that self-reported poor health also is common among low-income seniors and people with disabilities, generally.¹³³ The BRFSS analysis conducted for this HIA found that 25 percent of low-income people with disabilities and 13 percent of low-income seniors report their health status as poor.¹³⁴

Chronic conditions: Obesity, cardiovascular disease, high blood pressure, asthma, diabetes, and stroke

Obesity and hypertension (high blood pressure) are the most common physical health issues identified in studies of public housing communities, affecting as many as 50 percent of residents, according to some research.¹³⁵ Cardiovascular disease also is common.¹³⁶ By comparison, recent national statistics report that among adults in the general population, 29.4 percent are obese and 31.4 percent have high blood pressure.¹³⁷

Similarly, studies have estimated that 15 to 20 percent of public housing residents also have a diagnosis of diabetes and 20 to 25 percent of residents have asthma.¹³⁸ In studies of the general adult population, these health issues have been found to be less prevalent: 8.7 percent have diabetes and 9.1 percent are asthmatic.¹³⁹

Further, data from one study suggest that the prevalence of stroke was twice as high among seniors in public housing compared with other seniors in the community.¹⁴⁰

These health issues also are common among low-income seniors and people with disabilities.¹⁴¹ For example, the BRFSS analysis conducted for this HIA found that 66 percent of low-income seniors were overweight or obese, and 25 percent had diabetes. And, among low-income people with disabilities, 72 percent were overweight or obese and 27 percent had diabetes.¹⁴² By comparison, national statistics report that among adults in the general population, about 65 percent are overweight or obese and fewer than 10 percent have diabetes.¹⁴³

Mental health (anxiety, depression, mood disorders) and substance use

Mental health problems are prevalent among low-income individuals, particularly seniors. The most common diagnoses include anxiety, depression, and other mood disorders.¹⁴⁴ Studies have found that, as with physical health conditions, mental health problems are more widespread among public housing residents than in similar groups not residing in public housing.¹⁴⁵ For example, senior public housing residents were more likely to report a history of diagnosed depression compared with other seniors in New York City (19 percent versus 13 percent).¹⁴⁶ Similarly, Health and Retirement Study data show that psychiatric diagnoses were twice as prevalent among seniors in public housing as among other seniors in the community.¹⁴⁷ Approximately 1 in 4 seniors in public housing also suffers some form of cognitive impairment.¹⁴⁸

Substance use is another significant health issue affecting low-income individuals and residents of public housing in particular. An estimated 20 percent of public housing residents who participated in the Boston BRFSS had used illicit drugs at least once in their lives, and 15 percent had engaged in binge drinking in the past month.¹⁴⁹ The study also found that public housing residents were more likely to smoke than other area residents.¹⁵⁰ In New York, public housing residents were nearly twice as likely as other area residents to have substance use disorders.¹⁵¹ The co-occurrence of mental health issues and substance abuse has frequently been identified as a challenge for low-income seniors and people with disabilities.¹⁵²

Mental health issues and substance use also are common among low-income seniors and people with disabilities who could be eligible for but may not reside in public housing.¹⁵³ For example, homeless seniors and people with disabilities are particularly vulnerable to poor mental health and psychiatric problems. Many homeless seniors also may suffer from cognitive impairment.¹⁵⁴ The BRFSS analysis conducted for this HIA found that low-income seniors and people with disabilities report on average eight and 14 days of poor mental health per month, respectively.¹⁵⁵ In addition, an estimated 45 percent of low-income people with disabilities and 21 percent of low-income seniors reported having experienced depression. Low-income people with disabilities and

seniors reported engaging in binge drinking an estimated one to two days per month, on average.¹⁵⁶ Nearly 50 percent of low-income people with disabilities and 27 percent of low-income seniors reported that they smoke every day.¹⁵⁷

Mobility limitations and activities of daily living

Mobility limitations or needing assistance with everyday tasks—for example, toileting, eating, bathing, dressing, household chores, and arranging and getting to appointments—are common challenges for low-income seniors and people with disabilities.¹⁵⁸ Studies show that among public housing residents these challenges and the prevalence of sensory disabilities, such as vision or hearing impairments, increase with age.¹⁵⁹ Seniors in public housing also need more assistance with everyday activities compared with other seniors in the community. For example, one study reported that 40 percent of seniors in public housing had limitations in the activities of daily living compared with 19 percent of senior homeowners.¹⁶⁰ Similarly, studies estimate that 30 percent of seniors living in public housing suffer from a sensory disability—nearly twice the prevalence of such disorders among senior homeowners.¹⁶¹ Arthritis, a condition that can limit mobility and everyday activities, also is common among seniors in public housing, with estimates ranging from 33 percent to 68 percent.¹⁶²

Current conditions for key health determinants

Housing affordability and health

This section addresses the current status of affordable housing in the United States and how designation of public housing affects the housing needs of low-income households as well as the impact of housing costs on low-income families' ability to budget for other needs that affect health—such as purchasing adequate food, medication, and home heating or cooling. Because this HIA addresses a federal housing program, this section focuses on federally subsidized housing; however, states, counties, and localities also may provide affordable housing resources in their jurisdictions. The evidence demonstrates that affordable housing needs among senior and disabled households have increased nationwide and that the limited availability of affordable housing can force families to make difficult trade-offs that can negatively affect health.

Research question 1: What are the affordable housing resources and needs in the United States?

Approximately 4 percent of all households and 12 percent of all renter households in the United States receive federal housing assistance.¹⁶³ Roughly 1.1 million households live in public housing, and nearly 2.2 million households utilize Housing Choice Vouchers.¹⁶⁴ An additional 1.3 million households live in units subsidized by the project-based Section 8 program, or by the Section 202 and Section 811 programs, which serve seniors and people with disabilities, respectively.¹⁶⁵ (See Table 4.)

Taken together, however, these resources are insufficient to meet the demand for affordable housing: Only 1 in 4 low-income renter households that qualify for federal housing assistance is receiving it.¹⁶⁶ Those who do receive housing assistance typically have a lengthy wait. Across all HUD programs, low-income households spend an average of 20 months on a waiting list to access housing, though waits vary widely by program. For example, households spend an average of 13 months on waitlists for public housing compared with 25 months for vouchers.¹⁶⁷

The many families with unmet affordable housing needs include a growing number of seniors and people with disabilities. Nearly 7 million very low-income renter households (those households below half the median income in their area) in the United States are senior households without children or households with non-elderly people with disabilities.¹⁶⁸ Such families represent nearly 1 in 3 households with worst-case housing needs: renters with very low incomes (50 percent or less of the area median) who do not receive government housing assistance and who either pay more than half their monthly income for rent, live in severely substandard conditions, or both.¹⁶⁹ Between 2009 and 2011, the number of worst-case households increased significantly.¹⁷⁰ This was especially true among households with non-elderly people with disabilities, which surpassed 1.3 million in 2011.¹⁷¹ Moreover, nearly all data on worst-case and affordable housing needs, including those discussed here, underestimate the unmet need because they do not include those who are homeless or living in institutions, such as nursing homes or assisted living facilities. To be considered chronically homeless under the HUD definition, the individual or head of household must have a disabling condition, making it critical to include the homeless population when estimating the number of disabled households in need of housing.¹⁷²

Table 4**HUD Subsidizes More Than 5 Million Units Nationwide, Housing 4.6 Million Families**

HUD-subsidized and LIHTC properties, by availability, occupancy, and people served, 2012

		Total subsidized units available*	Percentage of units occupied [†]	Average household size	Total number of households served	Total number of people served
HUD-subsidized programs	Public housing	1,156,839	94%	2.15	1,081,672	2,323,675
	Housing Choice Voucher program	2,361,122	93%	2.46	2,168,764	5,327,432
	Section 8 moderate rehabilitation	19,841	86%	1.77	28,409	30,059
	Section 8 new construction and substantial rehabilitation (includes Section 202/8 projects)	841,084	96%	1.52	784,982	1,247,929
	Section 236 projects	156,168	93%	1.82	80,845	183,720
	Multifamily other (includes Section 202/811 capital advance)	633,724	95%	1.82	476,657	914,463
Total of all HUD programs		5,168,778	94%	2.14	4,621,329	10,027,278
LIHTC		1,974,163	N/A	N/A	N/A	N/A

* The number of units in each individual program does not sum to the total number of units across all HUD programs.

[†] Units occupied as a percentage of all units available. Units can become vacant for a number of reasons, such as for renovations, construction, or when they become uninhabitable due to deferred maintenance and inadequate capital funding.Source: U.S. Department of Housing and Urban Development, "Picture of Subsidized Households," 2012 Data, U.S. Total, accessed Sept. 11, 2014, <http://www.huduser.org/portal/datasets/picture/yearlydata.html#download-tab>.

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Providing integrated, supportive housing for homeless adults

Kewanee, IL
Public Housing Units: 450
Housing Choice Vouchers: 185*

In the small town of Kewanee in northwestern Illinois, the Housing Authority of Henry County uses the Shelter Plus Care rent subsidy to provide integrated, supportive housing for single, disabled, homeless adults over the age of 55.[†] Ten fully furnished apartments in a 41-unit building are dedicated for this purpose and the authority—with funding through state agencies, such as the Illinois Department of Human Services, and local in-kind contributions from the Salvation Army and other formal and informal partners—works with service providers in the area to connect residents to a comprehensive package of mental and physical health, social, financial, and substance abuse services.[‡] In the first four years of the program, the authority averaged a 98 percent occupancy rate with an average stay of nearly three years.

* U.S. Department of Housing and Urban Development, “Housing Authority Profiles,” accessed May 28, 2015, <https://pic.hud.gov/pic/haprofiles/haprofilelist.asp>.

[†] Housing Authority of Henry County, pers. comm., April 14, 2015; Corporation for Supportive Housing, “PHA Profile: Housing Authority of Henry County, IL, Housing Development Project Using Project-based Section 8: Parkside Apartments,” accessed March 9, 2015, <http://www.csh.org/wp-content/uploads/2013/03/CSH-PHA-Profile-HenryCounty-FINAL.pdf>.

[‡] Housing Authority of Henry County, pers. comm., April 14, 2015.

Figure 4 shows the current share of senior and disabled households with incomes less than 50 percent of area median income and with one or more housing problems—such as inadequate kitchen facilities or overcrowding—by state.¹⁷³ Over the past decade, affordable housing needs for senior households have increased across the United States. The number of senior households that have a household income less than 50 percent of area median income and one or more housing problems has increased in all regions. The most dramatic change has been in the District of Columbia and Hawaii, where the number of senior households in need has increased more than 200 percent. In California, Maryland, Minnesota, Nevada, and New York, the number has grown by more than 150 percent. Data limitations prohibit similar estimates of regional change in needs among disabled households, but it is likely that disabled households also faced substantial increases during the past decade.

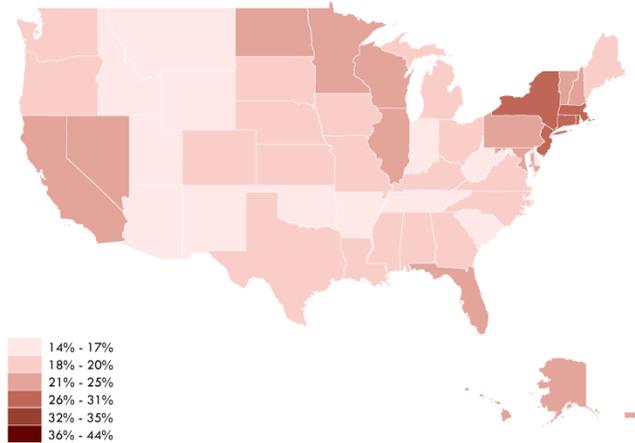
Figure 4

Nationwide, Very Low–Income Senior and Disabled Households Have Substantial Unmet Housing Needs

Share of senior (left) and disabled (right) households with housing problems and incomes below 50% of the area median, 2006–10 and 2008-10, respectively

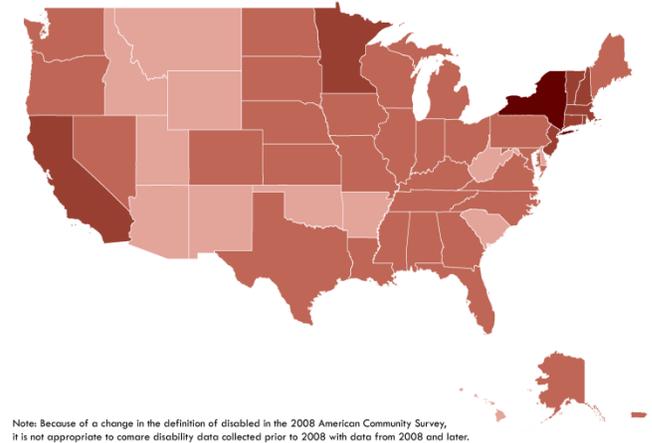
Senior Households with Need

Senior Households with a Household Income Less than 50% of AMI and Housing Problems, as Share of Total Senior Households, 2006-2010



Disabled Households with Need

Disabled Households with a Household Income Less than 50% of AMI and Housing Problems, as Share of Total Disabled Households, 2008-2010



Note: Because of a change in the definition of disabled in the 2008 American Community Survey, it is not appropriate to compare disability data collected before 2008 with later data.

Sources: Data from HUD 2000, 2006-10, and 2008-10 Comprehensive Housing Affordability Strategy.

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Data from multiple sources indicate a nationwide affordable housing shortage. Across all of the populations they serve, housing authorities and other affordable housing providers do not have a sufficient housing supply to meet the needs of low-income families in their areas.

Research question 2: How does the designated housing rule relate to affordable housing supply or demand?

Because designated units represent a small fraction of public housing stock, the designated housing rule probably has little impact on meeting the growing demand for affordable housing among senior or disabled households. However, the rule is not the sole mechanism and public housing is not the only resource available to address the needs of these populations. A range of policies and decisions at the federal, state, and local levels, including decisions about other HUD-assisted housing programs, affects the availability of housing for these families.

Because designated housing involves allocating limited affordable housing resources among different family types, the HIA team compared the extent to which counties where PHAs with and without active plans operate are meeting the demand of key population groups, including seniors and non-elderly people with disabilities. As described above, “remaining demand” is defined as the share of affordable housing needs that a PHA faces after considering other sources of supply within the county. Evidence suggests that, compared with PHAs that do not

use the designated housing rule, those with active plans are located in counties that meet a greater share of the remaining demand among younger disabled households and a similar share among senior households.¹⁷⁴ For example, compared with those not using the rule, PHAs with active plans operate in counties that, on average, met more than 1.2 times as much remaining demand among very low-income younger disabled households.

As another reference point for remaining demand, HUD estimates the share of households that have worst-case housing needs.¹⁷⁵ These needs could be considered unmet remaining demand for affordable housing. In 2011, the share of households with worst-case housing needs was 37.4 percent among senior households without children and approximately 42.6 percent among households with younger people with disabilities.¹⁷⁶ As mentioned previously, existing data underestimate demand among seniors and people with disabilities.

Several plausible explanations exist for these findings. First, PHAs with active designated housing plans are generally surrounded by a greater number of affordable units available through other programs that serve non-elderly disabled households or that provide multifamily assistance, including Section 811, the Housing Choice Voucher program, and the LIHTC program.¹⁷⁷ (See Table 5.) Second, PHAs that have senior-only designations may be allotting alternative housing resources to non-elderly disabled households to offset units that become unavailable to this population due to the designation. Third, PHAs that seek mixed or disabled designations are setting aside public housing units that might not have otherwise been available to non-elderly disabled households.¹⁷⁸

Table 5

Most Public Housing Authorities That Use the Designated Housing Rule Are in Areas with Relatively High Availability of Other Affordable Units

Assisted units in proximity to PHAs, by plan status

	Public housing units	202/811 Units	Multifamily and other units	Housing Choice Vouchers
Active	403,924	64,003	337,129	502,516
None	716,276	163,662	768,594	1,326,851

Note: Tabulations for 202/811 and Multifamily, Other categories are mutually exclusive, so 202/811 units are not included in the Multifamily, Other totals.

Source: Data from HUD, “Geospatial Data and Map Services: Assisted Housing Properties, Resident Characteristics Report,” June-September 2013.

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The share of remaining demand met also was examined for households with children and those headed by African Americans. Data suggest that all PHAs, regardless of whether they use the rule, operate in counties that meet a similar share of the remaining demand among these two household types. On average, PHAs with active plans operate in counties that met 39 percent of remaining demand for very low-income families with children, compared with 38.3 percent in counties where PHAs were not using the rule.

Remaining demand also was estimated for owner and renter households and by household income. Across all household types, a smaller share of remaining demand was met when homeowners were considered among those with affordable housing needs (more so for estimates for senior households or families with children than for non-elderly disabled households). However, similar trends emerged across PHAs with and without active

plans between owners and renters, compared with renters alone, in the estimates of the share of remaining demand met.

Research question 3: How does access to affordable housing affect poverty and material hardship, and what are the health implications for families and individuals, particularly seniors and people with disabilities?

Limited affordable housing options can force families into difficult trade-offs that affect health. Adults whose housing is unstable—those who are behind on their mortgages or rent, in foreclosure, or homeless—are more likely to report being in fair or poor health and to experience anxiety or depression compared with those who have stable housing.¹⁷⁹ A lack of affordable housing options limits the ability of low-income families, not only to acquire and maintain adequate shelter, but also to meet other basic needs. Financial constraints can force them to make tough choices between paying for rent, utilities, food, or medical care.¹⁸⁰

These trade-offs, termed material hardship, have implications for health through food insecurity, exposure to extreme heat or cold, housing instability, or foregone medical care and medications. For example, low-income families eat less during seasonal spikes in home energy costs, and seniors in low-income households are among those at greater risk of going hungry during the winter or summer months when home energy bills are highest.¹⁸¹ High housing and home energy costs and food insecurity also increase the risk that low-income people will postpone needed medical care, ration or skip prescription medications, and rely heavily on emergency room visits and hospitalizations.¹⁸² One study reported that among households with seniors receiving government assistance with home energy bills, 32 percent report going without medical or dental care as a result of high home energy bills in the past five years.¹⁸³ Out-of-pocket costs for prescription and over-the-counter medications also can take up significant portions of senior or near-elderly household budgets.¹⁸⁴

High energy costs also may subject many low-income families to several direct and indirect health risks. Research indicates that when families are unable to pay their gas, electric, or heating-fuel bills, they often resort to improvised, unsafe energy sources to heat or cool their homes.¹⁸⁵ In one survey, households receiving energy assistance reported taking several actions to make ends meet, including keeping their home at an unsafe or unhealthy temperature (23 percent) and using the kitchen stove or oven to provide heat (33 percent).¹⁸⁶ These practices increase the risk of injury and death.

Low-income households also are at greater risk of temperature-related death.¹⁸⁷ This may be due in part to the inability of households with low incomes to pay for home heating and cooling.¹⁸⁸ Seniors are among the most vulnerable to temperature fluctuations, with aggravation of existing health conditions from exposure to even moderate temperature changes, even within the home, being cause for concern.¹⁸⁹ In a survey of government energy assistance recipients, 16 percent of households reported that a household member had become ill in the past five years as a result of a home that was too cold.¹⁹⁰

Paying for other utilities also may be a problem, such as covering bills for energy to refrigerate food, electricity to keep the lights on, or for telephone service. In a national survey of government energy assistance recipients, 72 percent had a serious medical condition and 26 percent used medical equipment that required electricity, most commonly nebulizers and oxygen machines.¹⁹¹

Working-age people with disabilities are more likely than those without disabilities to experience poverty and material hardship and to face higher out-of-pocket health care expenditures, all of which can exacerbate existing disabilities and impact health.¹⁹² An analysis of Survey of Income and Program Participation data from 1996 through 1999 found that people with a physical, mental, or other health condition that limited the kind or amount of work they could do were more likely to experience material hardship across income levels, but the rates were particularly extreme for those living in poverty. For example, 40 percent of people who had work limitations and lived in poverty had experienced food insecurity.¹⁹³ After controlling for income and other socioeconomic characteristics, the study found that the odds of reporting various types of hardship (e.g.,

housing, utility, medical, dental, food) were 40 to 200 percent higher among working-age people with disabilities compared with those without a disability.¹⁹⁴

Housing discrimination and choice

This section examines the prevalence of housing discrimination among several population groups and describes the ways it can affect health, including its impact on access to affordable and accessible housing and economic and social resources. This section also describes several federal laws and policies aimed at decreasing housing segregation and discrimination and how the designated housing rule intersects with these policies. Evidence suggests that housing discrimination remains a common problem for many population groups, including people with disabilities, exacerbating the challenges they face in acquiring and maintaining adequate shelter.

Research question 1: How common is housing discrimination?

Despite the passage of numerous policies intended to prevent it, housing discrimination remains a common problem for many population groups, including people with disabilities; people of color; families with children; and lesbian, gay, bisexual, and transgender (LGBT) individuals, and can impede housing choice.¹⁹⁵ Much of the research on housing discrimination has focused on the private rental and homeownership markets, rather than on public housing. The data presented, therefore, highlight the challenges these populations may face in accessing housing in the market as a whole, but the degree to which public or designated public housing residents may face these issues is uncertain.

People with disabilities face significant challenges with regard to housing discrimination despite federal laws and efforts to combat discrimination and to promote deinstitutionalization. Between 2008 and 2013, 48 percent (27,239) of fair housing cases filed by HUD's Office of Fair Housing and Equal Opportunity (FHEO) involved allegations of discrimination based on disability.¹⁹⁶ Further, the number of such cases as a share of total fair housing cases filed increased in each of those years.¹⁹⁷ Conversations with FHEO staff conducted for this HIA revealed that many of these complaints are related to "reasonable accommodation requests," which are changes to rules, policies, practices, or services that may be necessary to enable a person with a disability to have an equal opportunity to use and enjoy a housing unit.¹⁹⁸ A HUD disability discrimination study found the following.¹⁹⁹

- People who are deaf or hard of hearing and use the teletypewriter system to inquire about advertised rental units had 1 in 4 of their calls refused.²⁰⁰ Even when calls were answered, deaf callers received significantly less information about the application process and fewer opportunities for follow-up compared with similar potential tenants without a hearing impairment.²⁰¹
- People using wheelchairs to visit properties were just as likely as those who were not disabled to meet with a property owner or manager. However, on 1 in 4 visits, people with disabilities were told about fewer available units, and on 3 in 10 visits they were denied the opportunity to inspect any units. Interestingly, on 1 in 4 visits they were also quoted lower security deposit fees compared with potential renters without disabilities.²⁰²
- One in 6 property owners or managers refused to make reasonable modifications to enable wheelchair use in a unit, and 19 percent of housing providers refused to designate an accessible parking space.²⁰³

The HUD study concluded that individuals with disabilities face "significant levels of adverse treatment when they search for rental housing" compared with individuals who are not disabled and that the frequency of adverse treatment was greater than that toward people of color in the Chicago-area rental housing market.²⁰⁴

The systematic literature review conducted for this HIA did not find any research specifically examining how frequently seniors experience housing discrimination, but some recent studies have focused on the experiences of housing discrimination, real or perceived, among LGBT seniors. Federal fair housing laws do not currently

provide legal protections for LGBT individuals, and a recent HUD paired-testing study reveals that same-sex couples of any age experience discrimination compared with heterosexual couples when the responses to email inquiries regarding rental units are examined.²⁰⁵

Data also suggest that experiences of discrimination and perceived risk of discrimination may be associated with delays in entering residential care facilities among LGBT seniors.²⁰⁶ In one study of LGBT adults:

- 73 percent said discrimination exists in retirement care facilities.
- 74 percent said sexual orientation was not included in the facilities' anti-discrimination policies.
- 34 percent said they would have to hide their orientation in a retirement facility.²⁰⁷

Although the literature base on LGBT seniors has been criticized for focusing on higher-income populations, the research suggests that real or perceived discrimination may be a barrier to housing for low-income LGBT seniors.²⁰⁸ In an effort to create safe and secure living environments for LGBT seniors, some housing providers and developers have established affordable housing developments targeted toward this population. For example, a 56-unit development in Philadelphia provides an LGBT-friendly environment and targeted services for low-income, LGBT seniors.²⁰⁹

Housing discrimination also remains a significant problem for people of color. Evidence suggests that Hispanic and black families experience racially or ethnically motivated geographic steering—being directed to highly segregated minority and poor neighborhoods—and discrimination in the mortgage application, lending, and home insurance processes and in the rental market.²¹⁰ A recent HUD paired-testing study across a sample of metropolitan areas in the United States revealed that, compared with equally qualified white renters:²¹¹

- Black renters are told about 11.4 percent fewer available units and are shown 4.2 percent fewer units.
- Hispanic renters are told about 12.5 percent fewer units and are shown 7.5 percent fewer units.
- Asian renters are told about 9.8 percent fewer units and are shown 6.6 percent fewer units.

Among fair housing cases filed by FHEO between 2008 and 2013, 32 percent (18,049) include an allegation of discrimination based on an individual's race.²¹² The literature base regarding the incidence of housing discrimination among people of color did not stratify by age or disability status, but the data suggest that people of color with disabilities or who are seniors face housing discrimination in the rental market at higher rates than their white counterparts.

Families with children also continue to face housing discrimination, such as experiences of discrimination by property owners or rental agencies, exclusion from certain neighborhoods because of zoning policies, or occupancy restrictions that limit the number of occupants within a unit.²¹³ Among fair housing cases filed by FHEO between 2008 and 2013, 16 percent included an allegation of discrimination based on familial status.²¹⁴

Although the available studies on rates of housing discrimination focus on the private housing market, court case evidence suggests that discrimination also occurs within the public housing sector. For example, HUD and PHAs throughout the country were found liable in several lawsuits, mainly between the late 1960s and early 1990s, for their historic role in intentional racial discrimination and segregation of public housing.²¹⁵ More recent litigation has alleged patterns of discrimination by several housing authorities based on disability status or race and ethnicity through practices such as refusing to admit non-elderly people with disabilities, failing to meet accessibility standards, setting policies that prevent people of color from accessing assistance programs, and steering or assigning applicants to specific units based on race rather than waiting list order.²¹⁶ Many of these cases were settled outside of court and resulted in changes to PHA policies and practices and to the accessibility of units.²¹⁷ PHAs also can enter into voluntary agreements with HUD to address noncompliance with fair housing policies.²¹⁸

Research question 2. How does discrimination affect mental and physical health, health behaviors, health determinants, and opportunities for economic mobility?

Research that directly examines the impact of housing discrimination on health is limited. However, discrimination can prevent or reduce access to affordable and accessible housing, which in turn can lead to negative effects on health as described in the Housing affordability and health (see Page 35) and Housing design and accessibility (see Page 60) sections.

Despite the lack of direct research, the considerable body of literature on the relationship between racial and ethnic discrimination and health can be used to form reasonable assumptions about the health effects of discrimination in housing. One systematic review of published studies found that racial and ethnic discrimination is associated with a number of negative health outcomes, including poor mental and self-rated health; reduced physical functioning; higher rates of health behaviors such as smoking and substance use; and physiological responses consistent with stress, such as changes in cortisol levels, blood pressure, heart rate, and medication adherence.²¹⁹

The findings for mental health outcomes and health behaviors are particularly consistent in multiple studies, even after adjusting for a range of other factors, such as income and education.²²⁰ People with mental illness may face unique types of discrimination related to stigma, such as perceptions that they are “dangerous” and “unpredictable.”²²¹ The U.S. surgeon general has identified stigma as the largest barrier to treatment among people with mental health problems.²²² It has been associated with lower self-esteem and self-efficacy and can decrease compliance with medications.²²³

Practices such as geographic steering can impact households’ access to resources and opportunities (e.g., education, employment, physical activity) that are essential to health.²²⁴ For example, living in highly segregated communities has been found to limit access to healthy foods, recreational facilities, and medical services.²²⁵ (See Neighborhood characteristics, Page 65.)

Research question 3. How does the designated housing rule intersect with federal laws and policies aimed at decreasing housing discrimination?

Since the 1960s, the federal government has adopted various laws and policies to decrease housing segregation and discrimination. The designated housing rule intersects with these efforts, particularly those that aim to decrease discrimination against people with disabilities and promote deinstitutionalization:²²⁶

- **Title VI of the Civil Rights Act of 1964** prohibits discrimination on the basis of race, color, and national origin and applies to all programs and activities receiving federal funding, including those administered by PHAs.²²⁷
- **The Fair Housing Act of 1968**, also known as Title VIII of the Civil Rights Act of 1968, established sweeping prohibitions on discrimination based on race, color, national origin, and religion in housing-related transactions, including sale, rental, and financing.²²⁸
- **Section 504 of the Rehabilitation Act of 1973** prohibits discrimination against individuals with disabilities in a number of contexts, including housing, but it applies only to the federal government and federally financed agencies, such as PHAs.²²⁹ Section 504 requires federal agencies and organizations receiving federal assistance to deliver programs in the most integrated setting possible.²³⁰
- **The Fair Housing Amendments Act of 1988 (FHAA)** modified the Fair Housing Act of 1968 to explicitly prohibit discrimination against families with children (including pregnant women) and people with disabilities in public and private housing.²³¹ The FHAA also states that it is illegal “for any person to refuse to make reasonable accommodations in rules, policies, practices, or services when such accommodations may be necessary to afford a [person with a disability] equal opportunity to use and enjoy a dwelling unit, including public and common areas.”²³²

- **The Americans with Disabilities Act of 1990 (ADA)** was based on the congressional determination that policies and programs that assemble services for individuals with disabilities in separate settings constituted a form of discrimination similar to the creation of “separate but equal” facilities based on race.²³³ Landmark cases in disability rights law following passage of the ADA established that the administrative convenience and economic efficiency of providing bundled, on-site services to individuals compared with delivering services in a community setting is insufficient justification for segregating individuals with disabilities.²³⁴ The ADA also identified failure to make reasonable accommodations for individuals with disabilities as a form of discrimination.²³⁵ The act directs public entities to provide programs and services in the “most integrated setting” possible that is appropriate to the individual’s needs.²³⁶
- **Olmstead decision and guidance:** As previously described, the 1999 Supreme Court decision *Olmstead v. L.C.* affirmed that unjustified segregation of individuals with disabilities is prohibited by the ADA and that people with disabilities have the right to receive services that support everyday life in integrated, community-based housing.²³⁷ Since the decision, new federal funding streams and strategies have emerged to facilitate the transition of individuals with disabilities out of institutions and segregated settings as well as the provision of community-based housing and services. In response to *Olmstead*, federal agencies have taken steps to encourage PHAs, other housing providers, and state and local governments to actively pursue additional community-based, integrated housing opportunities. For example, HUD issued guidance in 2013 to clarify how housing providers can support state and local *Olmstead* efforts, and HUD is exploring how it might support the addition of community-based, integrated housing units.²³⁸

Partnerships to support integration of people with disabilities

King County, WA
 Public Housing Units: 2,398
 Housing Choice Vouchers: 9,167*
 (Includes 1,750 Non-Elderly Disabled
 Vouchers allocated to the Housing
 Access and Services Program)

In 2000, the King County Housing Authority in Washington state implemented what would become one of the nation’s largest Housing Choice Voucher programs for non-elderly people with disabilities: the Housing Access and Services Program.[†] To date, 84 percent of the families and individuals who received vouchers have successfully leased a unit through the program, which boasts a 92 percent housing stability rate.[‡] Recognizing that the

program’s success would require coordination with supportive services, such as housing search assistance and crisis intervention, the authority developed a partnership with the YWCA. The authority receives and screens referrals for housing vouchers from a network of local disability service providers that also deliver or fund supportive services for program participants. Although the authority has HUD’s Moving to Work designation, the program does not require such status. Financial support for the program comes from the network of partners, with each participating disability service system contributing a proportionate share of service costs each year. The authority contributes minimal in-kind staffing resources to review applications, administer the vouchers, and manage contracts with partners.

* U.S. Department of Housing and Urban Development, “Housing Authority Profiles,” accessed May 28, 2015, <https://pic.hud.gov/pic/haprofiles/haprofilelist.asp>.

† Corporation for Supportive Housing, “PHA Profile: King County Housing Authority, Housing Access and Services Program (HASP), Housing Choice Voucher Program,” accessed March 10, 2015, <http://www.csh.org/wp-content/uploads/2015/02/CSH-PHA-Profile-KCHA-HASP-FINAL.pdf>.

‡ King County Housing Authority, pers. comm., April 17, 2015.

In focus groups and interviews, PHA staff said that fair housing policies and fear of litigation present challenges to their efforts to serve seniors and younger people with disabilities. For example, they cited programs that target tenants with similar health and service needs, such as supportive housing programs operated through HUD's Office of Multifamily Housing Programs, but said that they could not replicate these models due to fair housing concerns related to targeting housing to people with a specific disability type. Several PHA staff indicated that these models could help them coordinate services for residents with similar service needs. Two PHA staff members described the problem as follows:

"The 202/811 program ... does allow primarily nonprofits to designate housing for very specific disabilities. For instance, one property that I used to manage ... was designated for persons with multiple chemical sensitivity, which is a pretty difficult disability to diagnose, let alone to serve. And yet we had a waiting list of people coming all over the country for 11 units of housing just because of that designation.... So, I guess what I would be a proponent of is HUD looking back at, in public housing, can't we mimic the 811 program in a way that's sensible for our residents?"

"If you look at some of the other programs, like the 811...people who serve the disabled will generally design a building for physically disabled or for developmentally disabled or for—they don't even necessarily mix disabled populations in the same building. And if you're doing assisted living or 811s, you can designate what type of disability. Because you'd want to design for it and programs and services tied to that type of disability.... We're not allowed to do that. And that's one of the real challenges.... I don't know if HUD would let us designate a 25-unit building as physically disabled-only so we could tailor the design and the programming to it, or to developmentally disabled, or to whatever the specific disability might be."

These statements also reveal confusion and misinformation among some PHAs regarding the extent to which housing targeted to tenants with similar health and service needs is allowed in HUD's multifamily housing programs and in the private sector under fair housing laws. For example, in December 2010, Congress passed the Frank Melville Supportive Housing Investment Act, making several changes to the Section 811 program, including requiring that no more than 25 percent of the units in any new property be set aside for people with disabilities.²³⁹

Similarly, key federal agencies, including the Department of Justice, HHS, and HUD, have been developing fair housing guidance and policies building on *Olmstead* case law.²⁴⁰ The guidance and policies of all three agencies prioritize housing people with disabilities in integrated settings and suggest that single-purpose properties, or disability-specific programs, may not comply with fair housing policy and law.²⁴¹

Conversations with several fair housing experts indicate that PHAs have a number of resources available to help them understand and navigate these issues as they relate to designated housing and housing models targeted to people with disabilities. Existing resources include the ability to consult with FHEO staff, legal services staff, and local fair housing advocates; guidance provided in the HUD Public Housing Occupancy Guidebook; and guidance provided in the 1994 Public and Assisted Housing Occupancy Task Force report.²⁴² However, additional training or guidance may be needed.

Designated housing rule-making may offer an opportunity for HUD to provide additional guidance to PHAs regarding the intersection of the rule and fair housing policies and, in particular, to identify how the rule could be used to support *Olmstead* implementation and HUD's fair housing efforts.

Supportive services and health

Supportive services include medical and social services and other resources to help residents maintain housing or carry out daily tasks, such as assistance with transportation or care for chronic conditions. Service coordination professionals act as a bridge between housing and an array of available services and providers and

are integral to successfully combining supportive services and affordable housing. Public housing authorities are required to describe the supportive services they plan to provide or coordinate for residents when applying to designate housing.

The primary purpose of offering supportive services in public housing is to help residents maintain tenancy and remain in their homes and communities in the least restrictive setting. The next section describes the range of needs seniors and people with disabilities have, and the ways in which subsidized housing with coordinated service provisions can serve as a platform for improving quality of life and potentially reduce health care costs.

Research question 1: What are the supportive-service needs of low-income seniors and people with disabilities?

Most low-income senior and disabled households need supportive services in order to access and remain in integrated housing and maintain personal choice and control in their living situation.²⁴³ Services may range from intensive medical care for chronic conditions to assistance with daily tasks.

Whether a resident needs services to assist with independent living is typically assessed by qualified professionals, such as doctors and social workers, using two recognized benchmarks: (1) limitations in activities of daily living (ADL) for which the individual usually requires direct help from another person (e.g., transfer from place to place in the residence, toileting, eating, bathing, dressing); and (2) the need for help with instrumental activities of daily living (IADL), which further support independent living, where the individual would not be able to perform the activity without help, even if necessary for daily life (e.g., shopping, paying bills, household chores, arranging and getting to appointments). Behavioral health services (such as substance-abuse counseling) are another important aspect of care for populations in subsidized housing.²⁴⁴ The high frequency of limitations in ADLs or IADLs and of substance use among public housing residents and eligible seniors and people with disabilities was described previously. (See Current health factors and outcomes, Page 30.)

For many residents, access to supportive services is a lifetime need resulting from developmental disabilities, traumatic injuries, or degenerative diseases. Among seniors, the need for long-term care often is the result of decreased mobility and cognitive functioning that comes with aging.²⁴⁵ However, intensive or costly interventions are not necessary in all circumstances. For example, a study conducted on the health-related needs of older residents in subsidized housing found that assistance with simple housekeeping and lifting of heavy objects were two of the most frequently reported unmet needs.²⁴⁶ In focus groups, designated housing residents indicated that, to maintain tenancy, meet basic needs, and to support health and well-being, many of their neighbors needed assistance with everyday tasks. A public housing resident shared this perspective:

“Sometimes people need somebody just to check in with them about their health, about taking medication, about going to the doctor, about paying their bills ... But some people need assistance, like food assistance, and won't apply for it on their own.”

The need for supportive services is expected to grow as policy changes increase the numbers of younger people with disabilities who make the transition out of institutions and of seniors who remain in their homes as they age—commonly referred to as “aging in place.” As a result of the *Olmstead* decision and increasing demand for services among people with disabilities, states have closed institutions and invested resources in the delivery of in-home and community-based long-term care services.²⁴⁷

A number of research studies have found that some residents of nursing homes and other long-term care facilities have relatively limited levels of impairment. According to the Federal Interagency Forum on Aging-Related Statistics, in 2009, 5 percent of long-term care facility residents age 65 years or older who received Medicare had no functional impairment. Less than 11 percent of seniors in long-term care facilities reported having difficulty with only IADLs, such as light or heavy housework, managing money, meal preparation, and shopping; approximately 16 percent had difficulty performing fewer than three ADLs, such as bathing, dressing,

getting in and out of chairs, walking, or eating. This suggests that some 30 percent of the long-term care population does not meet the definition of “frail elderly” (unable to complete at least three ADLs as defined by HUD), but they are institutionalized before they need to be due to a lack of resources to support assistance with personal care and daily living needs.²⁴⁸ These seniors conceivably could maintain tenancy in a community-based setting if they had access to some services in the community.²⁴⁹ If coordinated with supportive services, public housing could serve as an important resource to facilitate the transition of individuals into community-based settings.

The demand for medical care and supportive services also will rise as the number of seniors increases nationwide. Demographers project that the number of people in the United States age 65 and older will double to 80 million by 2040, increasing from 13 percent to 20 percent of the total population.²⁵⁰ Growth of low-income racial and ethnic minority populations also will shape the challenges of meeting seniors’ affordable housing and service needs in the future, as these groups are more likely to encounter barriers to services, have a higher prevalence of disability, and have less wealth compared with whites of the same age.²⁵¹

PHAs are likely to see increased need for service coordination as seniors currently in subsidized housing age in place. HUD data suggest that a sizeable share of seniors stay in subsidized housing until an advanced age. A recent study reported that the average age at which residents exit public housing was 78 years, and nearly 1 in 4 seniors in public housing is at least 85 years old by the time he or she leaves.²⁵²

One notable barrier to helping more people transition out of institutions is the limited availability of housing that meets the criteria of programs that support long-term service delivery in community settings.²⁵³

Strategic partnerships connecting the homeless to housing and supportive services

San Antonio, TX
Public Housing Units: 7,575
Housing Choice Vouchers: 13,705*

The San Antonio Housing Authority partners with more than 150 social service agencies to provide supportive services for its clients.[†] For example, through its Homeless Services Voucher program and its partnership with Haven for Hope, the authority connects homeless

households with rental vouchers, case management, and services to support the transition to stable housing.[‡] Once referred households are selected from the program’s waiting list and screened for eligibility, they receive a voucher from the authority, and Haven for Hope continues to provide case management and supportive services.[§] Between July 2010 and 2013, this program helped 627 homeless households attain housing.^{||}

* U.S. Department of Housing and Urban Development, “Housing Authority Profiles,” accessed May 28, 2015, <https://pic.hud.gov/pic/haprofiles/haprofilelist.asp>.

† San Antonio Housing Authority, pers. comm., April 15, 2015.

‡ “Housing Authorities: Essential Partners in Ending Homelessness,” (Council of Large Public Housing Authorities, 2013), accessed March 9, 2015, <http://www.clpha.org/uploads/Publications/CLPHA2013Publication-HousingAuthorities-EssentialPartnersinEndingHomelessness.pdf>.

§ Ibid.

|| Ibid.

Research question 2: How does the designated housing rule intersect with existing efforts to increase coordination among housing and health agencies and establish subsidized housing as a platform for improving quality of life?

In its 2014-2018 Strategic Plan, HUD articulates a goal to “use housing as a platform to improve quality of life” by coordinating access to a wide variety of services to lower health care costs, to end homelessness, and to support community living.²⁵⁴ However, philosophical differences exist among PHA leaders with regard to their role in connecting housing with supportive services. Some housing facility owners, sponsors, and management firms view the provision of services as being outside their core responsibility to provide adequate housing. For example, some emphasize that government-assisted rental properties may not be the most appropriate setting to deliver services to frail seniors.²⁵⁵ By contrast, others actively seek community partnerships to coordinate services that meet the needs of residents in their public housing developments and invest financial and human resources to fill service gaps or work around policy barriers.²⁵⁶

Focus groups and interviews conducted with housing administrators suggest that these differing philosophies occur along a spectrum rather than breaking into distinct factions. A majority of participants stated that they would like to do more with regard to linking residents to services but highlighted limited and unstable resources as a substantial barrier. Overall, evidence suggests growing participation on the part of PHAs in coordinating supportive services and affordable housing. In a survey of housing providers and service partners conducted by the Corporation for Supportive Housing, high or medium support for housing coupled with services among PHAs increased from 61 percent in 2010 to 69 percent in 2011.²⁵⁷

PHAs are required to describe the supportive services they plan to provide or coordinate for residents in their application to designate housing. HUD generally does not fund supportive services programs, but it does provide some resources for coordination or capital funds for accessibility modifications in subsidized housing. In the early 1990s, the department created the Service Coordinator program and the Resident Opportunities and Self-Sufficiency (ROSS) program to link public housing residents with empowerment activities, supportive services, and assistance in becoming economically self-sufficient.²⁵⁸

Service coordinators—typically members of a housing development’s management team, based at the housing site, and funded as an operating expense—are important to low-income individuals who need assistance navigating a system of segmented health or social service providers and benefits.²⁵⁹ Their role is to assist residents in obtaining affordable services through community agencies. One service coordinator who participated in a focus group stated:

“When I think of our role—a big part of that it's all about self-sufficiency and getting their needs met, but also empowering them—doing it with them, not for them.”

The service coordinator facilitates the receipt of home and community-based services by residents in their own homes, promoting aging in place and preventing premature institutionalization.²⁶⁰ Service coordinators also may act as a broker for services that cannot be obtained through public resources.²⁶¹

The important role service coordinators play has long been recognized. In 2002, the Commission on Affordable Housing and Health Facility Needs for Seniors in the 21st Century released a report recommending that Congress take all necessary steps to improve and fund service coordination in federally assisted senior housing, including that Congress ensure funding for service coordination, continue and expand the existing HUD service coordinator grant program, and provide resources to allow eligible developments to incorporate a service coordinator position in the operating budget.²⁶² A 2008 study of the HUD-funded program in subsidized multifamily housing found that property managers had a high level of satisfaction with coordinators. Moreover, in properties with service coordinators, residents’ length of tenancy was six months longer, on average, compared with residents in similar developments without coordinators.²⁶³ More than 92 percent of property

managers surveyed as part of the HUD study indicated that they agreed or strongly agreed with the statement that service coordinators enabled aging in place.²⁶⁴

In focus groups and interviews, many PHA staff, resident service coordinators, and residents indicated that service coordinators were a critical aspect of PHAs' efforts to support the housing and health outcomes of seniors and people with disabilities. Several property managers indicated that coordinators were essential to helping residents maintain tenancy, independence, and neighborly relations. One manager of a mixed-population designated property described this perspective:

"It could be that we've assessed the need where someone has very poor housekeeping ... and for us that's a lease violation issue. So we're able to work with the service coordinator to get them help, [assistance with] heavy chores to get them clean ... and then get them services, whether it's weekly, or daily, or monthly, so that they can maintain their apartment and still be in compliance with their lease."

Most commonly, PHAs provide housing coordinated with services in their public housing developments, but a limited number of programs provide supportive services in conjunction with vouchers. These include HUD's McKinney-Vento Homeless vouchers, designed to promote the development of supportive housing and supportive services to assist homeless persons in the transition from homelessness to stable housing, as part of a local Continuum of Care strategy (a community-wide collaboration of providers committed to the goal of ending homelessness) and Non-Elderly Disabled (NED) vouchers—special-purpose vouchers awarded since 1997 to non-elderly individuals with disabilities.²⁶⁵ Recent voucher funding has been a collaborative effort between HUD and the Centers for Medicare & Medicaid Services.²⁶⁶ In addition, the Veteran's Affairs Supportive Housing (HUD VASH) vouchers combine housing choice voucher rental assistance with Veterans Affairs services, such as case management and clinical services for homeless veterans.²⁶⁷

Research suggests that seniors in subsidized housing are less likely than senior renters who do not require subsidies to live in properties that offer supportive services. In one study, a minority of participants who lived in subsidized senior housing properties had access to transportation services (36 percent), group meals (26 percent), and assistance with housekeeping (12 percent) or bathing and dressing (6 percent). By contrast, most study participants who lived in unsubsidized independent senior living properties had access to transportation (76 percent), group meals (76 percent), and housekeeping services (67 percent), and a large minority had access to personal care assistance (43 percent).²⁶⁸ In addition, research suggests that seniors using Housing Choice Vouchers are more likely to occupy older housing units that may not have needed accessibility features and likely do not have access to communal dining spaces or service coordinators.²⁶⁹ In focus groups and interviews conducted for this HIA, PHA staff noted that seniors and people with disabilities with Housing Choice Vouchers often face challenges in finding accessible units on the private market.

Gaining access to health and social services also can be more difficult for low-income younger people with disabilities. In focus groups and interviews, public housing leadership, property managers, service coordinators, and residents all mentioned that these residents often face challenges in accessing supportive services due to state or local policies that make them ineligible for resources based on age. For example, residents expressed that while many of their neighbors face challenges with hunger and food insecurity, more food and nutrition programs are available for seniors than for younger residents. Service coordinators also noted that residents of all ages face challenges in navigating complex service systems and that the quality of services differs across providers.

Research question 3: How does coordinating services with subsidized housing for seniors and people with disabilities affect health?

For seniors and people with disabilities, residence in housing coordinated with services can have substantial health implications. Research shows that people have increased housing stability—an improved ability to stay in their homes—when provided with adequate housing coordinated with services, regardless of the particular

configuration of services and housing.²⁷⁰ One study found that states that invest more in community-based services—home-delivered meals in particular—had fewer seniors with limited or no functional limitations and little or no cognitive impairment living in nursing homes. This suggests that higher-functioning seniors were able to stay in their homes and communities instead of moving into nursing homes.²⁷¹ Another study found that participation in paid programs offering assistance with IADLs helped older adults stay in their homes longer than others who did not receive assistance.²⁷² Though most research has focused on outcomes for residents of public housing or project-based units, evidence also indicates that coordinated supportive services help tenant-based voucher recipients maintain housing stability and avoid homelessness, compared with voucher recipients who do not receive the same level of services.²⁷³

Housing coordinated with services also can help decrease behaviors detrimental to health, such as substance use or sexual behaviors that may increase the risk of disease transmission. For example, a study of veterans receiving vouchers combined with intensive case management through the HUD-VASH program demonstrated that receiving these supports can enhance quality of life and decrease alcohol and drug use compared with receiving standard care or case management without vouchers.²⁷⁴ A study of an intervention using the Housing First model—an intervention that does not require abstinence from alcohol—among chronically homeless individuals with alcohol use issues found that provision of housing decreased alcohol use and related problems.²⁷⁵

Receipt of services and housing assistance also can improve medical care outcomes and treatment adherence for the chronically ill. Homelessness is a strong predictor of poor health outcomes, including HIV and HIV treatment adherence and outcomes. A randomized control trial of HIV-positive homeless inpatients compared results for a group that received permanent housing with intensive case management, typically through tenant-based housing vouchers, to those who received standard care—referrals to overnight shelters or interim housing and eligibility for case management.²⁷⁶ After one year, 55 percent of the individuals who received permanent housing with intensive case management were alive and had intact immunity, compared with 34 percent of the comparison group.²⁷⁷ Stable, affordable housing facilitates medication adherence and access to medical care and is associated with significantly lower death rates among low-income individuals with HIV/AIDS.²⁷⁸

Quality of life, community integration, and housing choice among formerly institutionalized individuals, the homeless, and frail seniors can be improved by interventions that provide housing coordinated with services. Several studies conducted to evaluate supportive service programs coordinated with subsidized housing for seniors, including frail elders, indicate that such supports are important for mental health, socialization, and vitality (energy level and fatigue).²⁷⁹

Evidence also indicates that housing interventions benefit the quality of life of homeless populations.²⁸⁰ For example, a randomized evaluation of homeless individuals with a history of mental illness found that, compared with those receiving services in the Continuum of Care program, those who participated in Housing First had increased housing stability and greater perceived choice, which has been shown to be important to residents' happiness and life satisfaction over time.²⁸¹ Furthermore, qualitative data from a cohort of formerly homeless individuals who received housing coordinated with services indicate that participants experienced positive personal changes, such as a sense of increased independence and improved well-being and relationship quality.²⁸²

Findings from evaluations of efforts to help individuals make the transition out of institutions indicate that this population also experienced improved quality of life and community integration after receiving affordable housing and supportive services.²⁸³ For example, among formerly institutionalized people who received Medicaid funds for long-term care in the home or in a community setting through the MFP program, 85 percent were able to live in the community for at least one year, and self-reported quality of life was higher a year after

the transition. Within two years, participants reported significant improvements in access to additional supports for integrated living.²⁸⁴

Partnerships to connect public housing residents with supportive services

Milwaukee, WI
Public Housing Units: 3,871
Housing Choice Vouchers: 6,200*

Nearly 20 years ago, a group of organizations formed the Lapham Park Venture to better understand seniors' supportive-service needs and to improve coordinated services for residents at Lapham Park, a 200-unit public housing high-rise for low-income seniors in Milwaukee.[†] Each partner organization—including SET

Ministry, the Housing Authority of the City of Milwaukee, the Milwaukee County Department on Aging, Goodwill Industries of Southeastern Wisconsin, and the Lapham Park Resident Organization—has a specific role and brings unique resources to the shared goal of giving residents the opportunity to remain in their homes and communities as they age.[‡] The average resident at Lapham Park is 67 years old and has four to five chronic health conditions.[§] Resident service coordinators hired by SET Ministry support residents at Lapham Park and other housing authority properties by connecting them with a range of services, including computer literacy training; transportation; substance abuse treatment; and medical, dental, and mental health services. The program has been successful (only about 3 percent of residents move to an institutional setting) and was expanded to 13 additional public housing developments.^{||}

* U.S. Department of Housing and Urban Development, "Housing Authority Profiles," accessed May 28, 2015, <https://pic.hud.gov/pic/haprofiles/haprofilelist.asp>.

† Council of Large Public Housing Authorities, "Supporting Aging in Place for Low-income Seniors" (PowerPoint slides presented at the annual meeting for the American Public Health Association, Nov. 18, 2014), accessed March 9, 2015, http://www.clpha.org/uploads/2014_Reports/SZPresentationforAPHACConference.pdf.

‡ SET stands for "serve, empower, transform"; Council of Large Public Housing Authorities, "Supporting Aging in Place for Low-income Seniors."

§ Ibid.

|| Council of Large Public Housing Authorities, "Supporting Aging in Place for Low-income Seniors"; Ken Barbeau, "Lapham Park Venture: Model for Integrating Housing with Services" (PowerPoint slides presented at the National Health Policy Forum, Oct. 23, 2009); Housing Authority of the City of Milwaukee, pers. comm., April 10, 2015.

Research question 4: Are there health care costs avoided or cost savings gained from investing in housing coordinated with supportive services?

Providing housing coordinated with supportive services in home and community-based settings also offers opportunities to reduce costs. Providing long-term care in institutions is costly. For example, one study estimated that supporting a resident in a nursing home costs five times more compared with supporting a resident in a community setting.²⁸⁵ In an effort to contain such expenditures, which constitute nearly one-third of all Medicaid spending, states have explored providing services in homes and community-based settings.²⁸⁶

Recent evaluations of government-sponsored demonstrations find that expanding home and community-based care is an effective administrative cost-control technique for Medicaid.²⁸⁷ Data indicate that states are realizing cost savings as they shift long-term care and supports toward community-based services.²⁸⁸

In addition to long-term care expenditures, states and localities often look to housing coordinated with services to reduce costs associated with emergency rooms, hospitalization, incarceration, homeless shelters, and other public services. Cost studies have found that providing housing coordinated with services to high-need populations can decrease or eliminate excess public service expenditures as a result of tenants' reduced use of those services.²⁸⁹

A study of supportive housing residents with substance abuse histories found decreases in the use of costly crisis-oriented systems such as hospitals and jails compared with the control group.²⁹⁰ By one year post-intervention, total expenditures for crisis-oriented systems for the 95 housed participants had declined more than \$4 million, or \$42,964 per person, compared with the previous year, while the cost to provide the supportive housing intervention was only \$13,440 per person annually.²⁹¹

Another evaluation—of the 10th Decile Project in Los Angeles, which works with hospitals to identify the 10 percent of homeless patients with the highest public service and hospital costs—found that service utilization and associated costs decreased when members of this population were offered supportive housing. The study estimated that if all such patients had been engaged and housed, the average cost per person housed would drop by about one-third in the first year.²⁹²

Furthermore, studies have found that reductions in public service costs can offset spending for interventions that provide housing coordinated with services. For example, one study, which considered the costs associated with changes in utilization of seven different public services by formerly homeless participants with mental illness, found that 95 percent of the housing costs were offset by service reductions attributable to the housing placements.²⁹³ A second study found that providing the Housing First model to homeless persons with mental illness reduced the probability of receiving inpatient, emergency, and justice system services while outpatient mental health visits and associated health and housing costs increased.²⁹⁴ Reductions in costs for inpatient, emergency, and justice system services offset 82 percent of the cost of the housing intervention.²⁹⁵ Some evidence suggests, however, that housing coordinated with services does not reduce public service use for all populations.²⁹⁶ For example, among people with mental illnesses and incarceration histories who receive supportive housing, residents with histories of repeated hospitalization may continue to be admitted.²⁹⁷

Preliminary data from a recent evaluation of the first year of the Support and Services at Home (SASH) program—which connects low-income senior residents living in affordable housing properties to coordinated, community-based services—suggest that coordinating housing with supportive services for this population also may help curb growth in Medicare spending. The study examined the impact of the program on Medicare expenditures among participants living in HUD-subsidized properties in Vermont, including Section 202 and public housing, that implemented SASH in partnership with a Medicare demonstration program.²⁹⁸ The evaluation found that the program was associated with a slower rate of growth in total Medicare expenditures and spending on care following a hospitalization for injury or illness (post-acute care) compared with expenditures among two comparison groups.²⁹⁹ Interestingly, the evaluation also found that SASH participants had higher rates of emergency room visits and hospitalizations compared with one of the comparison groups, which may be a result of improved identification of health care needs through the program.³⁰⁰

Research question 5: What are current resources and opportunities for coordinating affordable housing and health services for seniors and people with disabilities?

Partnerships between housing and health agencies to align federal and state programs are critical to the success of states' efforts to contain long-term care or public service costs and to support integrated community living for more people. In focus groups, PHA leaders who use the designated housing rule voiced concern about the lack of sustainable funding for services to support aging seniors and people with disabilities. Many also expressed unease about the limited resources available for mental health services, particularly as states begin to comply with the *Olmstead* decision and transition persons with mental disabilities out of institutions. One participant captured this unease:

“There's been a disinvestment in mental health services ... the state hospitals have closed. There are folks who would otherwise have been in a more formalized treatment structure that are now coming into our housing, because they don't have other options ... So we're one of the last ones standing ... we will house

you, and without the added resources, without the wherewithal at all to manage things from a clinical perspective.”

Sustainable funding for supportive services also could create opportunities to meet the housing and service needs of younger disabled residents, according to housing authority leadership. One interviewee described the potential to increase the share of units designated for younger residents with disabilities:

“And you could argue, well, could you not increase your younger disabled population if you had more services? And I would say that if we had services that were paid for and in place for a period of time—I’m not talking about someone getting a one-off grant—you could have that conversation about changing the ratio ... maybe. And I don’t think we would be opposed to having that conversation. But that would assume that on the health side, everything is fixed and in place and funded.”

HUD and the HHS have taken steps to align resources, including the Housing Capacity Building Initiative for Community Living and several Centers for Medicare & Medicaid Services initiatives, including Medicaid waivers for home and community-based services, the MFP program, and the Program of All-Inclusive Care for the Elderly.³⁰¹ In addition, the Health Resources and Service Administration is working to increase partnerships with local PHAs to deliver primary care services to public housing residents at Federally Qualified Health Centers.³⁰²

These initiatives provide options for states looking to contain long-term care costs—predominantly Medicaid spending—by targeting service provision in home- and community-based settings to populations that otherwise would require institutional care.³⁰³

- **Medicaid waivers for home- and community-based services (HCBS waivers)** enable states to provide Medicaid-funded long-term care services in home- and community-based settings.³⁰⁴ While the majority of Medicaid long-term services dollars still go toward institutional care, the percentage of Medicaid spending directed to HCBS has more than doubled from 20 percent in 1995 to 45 percent in 2010.³⁰⁵

State efforts to expand the use of HCBS waivers have been driven by increasing demand for services among seniors and people with disabilities, the *Olmstead* decision, and the need to control Medicaid spending.³⁰⁶ The demand for HCBS waiver services exceeds the availability of resources to support transitions out of long-term care facilities. In 2011, the average wait to receive waiver services was more than two years, and the number of people on waiting lists increased by 19 percent over the previous year. In 2009 more than 511,000 people were waiting for waiver services.³⁰⁷ One housing authority leader offered this perspective on the limited availability of sustainable resources for supportive services:

“Both our Medicaid and our waiver funded programs and our Older Americans Act funded programs are actively under waitlist status here. So across the aging and disability services spectrum, regardless of your income status, or the net that we’re trying to pull funding from to subsidize services in-home, we’re currently subject to some pretty long waitlists, and a lot of triaging.”

- **The MFP program** helps states rebalance their Medicaid long-term care systems by shifting resources away from institutions and toward providing services in home- and community-based settings. To do this, MFP eliminates barriers in state law, Medicaid plans, and budgets that restrict the use of Medicaid funds.³⁰⁸ As of early 2012, 45 states and Washington, D.C., participated in the program.³⁰⁹ As of 2012, more than 30,000 people had made the transition to community living through the MFP program, an average of 8,000 per year since 2010, with most being people with physical disabilities or seniors: 38 percent and 37 percent, respectively.³¹⁰ Nearly 21 percent of MFP participants have a developmental disability, but these individuals and those with mental illness have been less likely to be candidates for transition due to their typically more extensive long-term care needs.³¹¹

The limited availability of affordable, accessible housing that meets the definition of a “qualified residence” under MFP is the most significant barrier to transitioning more people.³¹² Individuals with disabilities, in

particular, have consistent difficulty due to the lack of integrated housing options where they can receive needed support services.³¹³ More and more, states are looking to bridge the gap between the demand for and the availability of integrated housing by establishing statewide partnerships and relying on staff with expertise in locating affordable housing options.³¹⁴ In a focus group, representatives from five MFP demonstration states indicated that many of the individuals who have yet to make the transition out of institutional settings in their states are people with disabilities and that their transitions will be difficult due to integrated housing and service barriers, such as those discussed above.

Very few housing authorities engaged for this HIA indicated involvement with MFP in their state, but some that were involved had established strong partnerships and formal relationship agreements with the state Medicaid offices. For example, the Denver Housing Authority has implemented a memorandum of understanding with the Colorado Department of Health Care Policy and Financing to coordinate supportive services for formerly institutionalized individuals who have made the transition to public housing. In a survey of state MFP programs, respondents highlighted the important role that partnering with housing authorities and HUD plays in improving housing options for MFP participants and in understanding statewide affordable housing resources.³¹⁵

- ***The Program of All-Inclusive Care for the Elderly (PACE)*** provides individuals age 55 or older with comprehensive, coordinated medical and personal care services delivered by an interdisciplinary team of health professionals at home rather than in a nursing home.³¹⁶ The program is federally funded through Medicaid and Medicare and was operating in 31 states as of January 2014. Early data suggest that a key element of the PACE model is adult day care, which often is located in senior housing properties or in senior centers. The average PACE participant is 80 years old, needs assistance with three activities of daily living, and has about eight medical conditions.³¹⁷ To date, only a limited number of partnerships between PHAs and PACE programs exist. One is the Cambridge Housing Authority in Massachusetts, where PACE services are coordinated for residents at four developments in an affordable assisted living setting that can enhance their ability to successfully age in the community.³¹⁸
- ***HRSA programs, such as Federally Qualified Health Centers (FQHCs)***, are “safety net” providers intended to enhance the provision of primary care services at clinics located in underserved urban and rural communities.³¹⁹ Partnerships between affordable housing providers and HRSA programs, such as FQHCs, can enhance access to primary care for public housing residents. For example, the Housing Authority of the City of Milwaukee collaborated with an area FQHC to create a satellite clinic at one of its public housing properties for seniors.

Opportunities also exist to coordinate the delivery of primary health care with behavioral and mental health services for public housing residents. PHA leadership and staff noted that it is increasingly important to address these needs as part of the safety net, and research provides a basis for this enhancement.³²⁰ General health care costs are higher for persons with mental illness, as these conditions are associated with increased rates of morbidity and mortality, decreased adherence to treatment recommendations, and more frequent use of high-cost settings.³²¹

Evidence on the positive results of integrating mental and physical health services persuaded the Institute of Medicine to recommend integration of these services as one element of a broader strategy to close the quality gap in health treatment.³²² Though fragmented funding streams present challenges, emerging models for addressing behavioral and primary health care include integrating behavioral health and primary care into the services offered at FQHCs and Community Mental Health Centers, respectively.³²³

- ***The Affordable Care Act (ACA)*** expanded initiatives to finance housing coordinated with services. For example, it included revised provisions to remove barriers to offering HCBS, such as changes to Section 1915(i) of the Social Security Act. The updates to 1915(i) help states offer services and supports before

individuals need institutional care and create plans for providing home- and community-based services to individuals with mental health and substance use disorders. Furthermore, the ACA appropriated an additional \$2.25 billion to fund MFP from 2012 through 2016, allowing more states to apply to the program.

Many states are leading the way in designing innovative and fiscally responsible ways to enable more seniors and people with disabilities to receive services in their communities instead of in institutions. Though limited research has been conducted to guide housing authority decisions, several models for publicly subsidized housing plus services, many of which utilize the resources described above, have emerged as successful.³²⁴ These models include offering enriched services such as case management plus coordination, co-locating housing and health services or providers (e.g., FQHCs, Community Mental Health Centers, or primary care providers who accept Medicaid referrals), and establishing partnerships such as those between housing, aging, and health services agencies to coordinate services and contain long-term costs.³²⁵

Reported obstacles to success for supportive housing strategies include navigating fair housing laws as well as varied and sometimes incompatible policies, regulations, or liabilities across housing and health sectors. In addition, sufficient and sustainable funding has been a major challenge facing supportive housing program development.³²⁶

Partnerships with the Program of All-Inclusive Care for the Elderly

To date, only a limited number of housing authorities have entered into partnerships to implement in public housing the Program of All-Inclusive Care for the Elderly (PACE), which provides individuals age 55 or older with comprehensive, coordinated medical and personal care services delivered in their homes by an interdisciplinary team of health professionals rather than in a nursing home or other institutional facility.

Cambridge, MA
Public Housing Units: 1,534
Housing Choice Vouchers: 3,491*

At the Cambridge Housing Authority in Cambridge, Massachusetts, PACE services are coordinated for residents at four properties to provide comprehensive medical and personal care in an affordable assisted-living setting that can enhance seniors' ability to remain in their communities as they age.[†] The

authority partners with the Cambridge Health Alliance Elder Service Plan, a PACE provider, to deliver a range of services and around-the-clock, on-site staffing.[‡] The authority has capacity to support 70 seniors across the four properties through the PACE program.[§] In 2014, the partnership served 33 seniors, who have been able to remain in their homes rather than having to move to institutional settings.^{||} Although the Cambridge Housing Authority has HUD's Moving to Work designation, this partnership does not require such status.

Seattle, WA
Public Housing Units: 6,153
Housing Choice Vouchers: 10,427[#]

At Westwood Heights, a 130-unit public housing property designated for seniors, the Seattle Housing Authority has a partnership with ElderPlace, a subsidiary of the not-for-profit Providence Health Systems of Washington.^{**} ElderPlace provides on-site PACE services to help meet eligible residents' health care

needs in the community instead of moving them to a nursing home or other care facility.^{††} In addition, participants in ElderPlace's broader program who need housing also receive priority on the building's waiting list.

* U.S. Department of Housing and Urban Development, "Housing Authority Profiles," accessed May 28, 2015, <https://pic.hud.gov/pic/haprofiles/haprofilelist.asp>.

† Cambridge Housing Authority, "Moving to Work Annual Plan 2015," accessed May 28, 2015, <http://cambridge-housing.org/civicax/filebank/blobload.aspx?BlobID=22922>.

‡ Cambridge Housing Authority, "Services for Elders," accessed March 9, 2015, <http://cambridge->

housing.org/resources/residentsvcs/elders.asp.

[§] Cambridge Housing Authority, “Moving to Work Annual Plan 2016,” accessed May 28, 2015, <http://cambridge-housing.org/civicax/filebank/blobdload.aspx?BlobID=22946>.

^{||} Cambridge Housing Authority, pers. comm., April 16, 2015.

[#] Seattle Housing Authority, pers. comm., April 20, 2015; U.S. Department of Housing and Urban Development, “Housing Authority Profiles,” accessed May 28, 2015, <https://pic.hud.gov/pic/haprofiles/haprofilelist.asp>.

^{**} Seattle Housing Authority, “Westwood Heights,” accessed May 28, 2015, <https://www.seattlehousing.org/redevelopment/westwood/heights/>.

^{††} Seattle Housing Authority, pers. comm., April 20, 2015.

Resident social environment

The health implications of the social environment—the connections, relationships, and interactions among residents—can have a substantial impact on health and quality of life for seniors and people with disabilities in designated housing. When the social environment promotes interaction among residents and is combined with support networks, the health benefits can include improved functional skills and quality of life and increased lifespan for seniors. However, other aspects of the environment, such as crime, violence, fear, and stress can increase blood pressure and accelerate residents’ mental or physical decline. This section examines the health implications of designated housing on the social environment, primarily through resident participation, support networks, and neighborly conflict.

Research question 1: How does the resident social environment in subsidized housing affect the mental or physical health of seniors or people with disabilities?

The social environment within subsidized housing developments can have a substantial impact on the health and quality of life of residents, primarily through social participation, support networks, and neighborly conflict. For example, evidence suggests that the frequency of contact with social networks and supports decreases with age and can have implications for health and well-being. A systematic literature review found that social participation is correlated with improved functional skills, better self-reported quality of life, and longer lives among seniors.³²⁷ Studies also have demonstrated an association between fewer social networks and physical and cognitive decline among aging seniors.³²⁸

In focus groups, many designated housing residents expressed the importance of the social environment to their health, noting that their sense of safety and connections with neighbors within the building can decrease isolation, increase participation in physical and social activities, and improve resident safety and sense of community:

“We have a coffee hour here in the mornings, Monday through Friday ... And we check in on each other, and we tell jokes, and we talk about things, and discuss things. And it's really important to us that we can get together. It's not so much the coffee, but it's getting to see your friends.” —Resident, mixed-population building

“I'm here alone ... And it makes you feel good that people care enough for you to knock on your door, or call you, ‘Are you OK? I haven't saw you,’ or ... just to say, ‘Hello.’” —Resident, mixed-population building

A number of factors may influence the resident social environment and, in some cases, create conflicts among neighbors. These include differing lifestyles and the characteristics, such as crime or violence, of the surrounding neighborhood. Lifestyle factors that cause friction among residents, for example between seniors and younger

disabled individuals, can include the number of visitors; schedules; and tastes in music, dress, and social and recreational activities.³²⁹ Residents indicated that lifestyle differences contributed to conflicts in their buildings:

“I am 70 years old. What people do in their apartments, I do not care. But, if people are loud and noisy and disrupting me, I will have a fit with them. And that's my concern. If you're quiet in your apartment, whatever you do, that's your business. But when you're taking your business outside your apartment, then I'm offended. And I'm offended by people coming in, disrespecting me. Younger people. And the younger people who visit them a lot. And I resent that.” —Senior resident, mixed-population building

“I've seen families in here, in their 20s, 18-year-olds. And people mistreat them, and you talk about respect. And it's got to be mutual. Respect is a mutual thing.” —Younger resident with disabilities, mixed-population building

Crime and violence create fear and stress among residents within a community and conflict among neighbors. Experiencing fear and stress from living in a threatening environment can affect health, for example, by causing increased blood pressure or sleep disturbance, decreasing the body's natural defenses against germs, and accelerating mental or physical decline.³³⁰ Stress can cause or worsen chronic health conditions such as asthma, heart disease, or stroke.³³¹ Prolonged exposure to stressors can damage immune defenses and vital organs, including the heart.³³²

Fear of crime can affect residents' well-being and influence how freely they move about and the extent to which they participate in community activities. For example, fear of crime has been linked to increased rates of anxiety and depression, and the stress of living in a community with social disorder, particularly in disadvantaged neighborhoods, also may increase substance abuse.³³³

In focus groups, many designated housing residents described the health implications of experiencing conflict among neighbors, including stress, difficulty sleeping, and respiratory issues. Several indicated that they stayed in their apartments because of real or perceived resident conflict and safety issues in the building:

“So, security is tied into health ... because what health does for me ... is the asthmatic issues, the respiratory issues, but also stress. There's an incredible amount of stress on a lot of the seniors, where it becomes a psychosomatic thing. I don't know how it might come out with them. But for some it's coughing or respiratory issues. For others, it's just fatigue ... So I think health-wise, there's a tremendous impact in terms of what is going on psychologically and socially here.” —Senior resident, mixed-population building

“I've talked with a lot of other single, older women here, so I know the sense of fear that they have because they've asked it of me as well. ‘Are you afraid to come in at night?’ And there is effort sometimes on the older women's part to not do eye contact because if you do, you could [invite trouble]—there's a sense of fear and intimidation. You're dealing with people who you see out on the streets who may be alcoholic or involved in substance abuse, and they live here.” —Senior resident, mixed-population building

“We see people who you clearly know are homeless because you see them [on the street]. And it's not uncommon to see people who are [on the street] come down here. But you have people who those are their friends, so then when they come and visit and when their time is done in someone's apartment, then they get put out in the hallway, in the back hallway. So now someone like myself, I can't do my exercise and walk down the back hallway because ... I don't know who's going to be in the back in those hallways.” —Younger resident with disabilities, mixed-population building

Furthermore, many residents expressed concern about crime in their buildings and the safety and security of building entrances.

Residents who have limited mobility may not often leave the property, and so the majority of their social interactions typically occur within the housing development. As a result, these individuals have greater exposure to the social environment and related health implications. In focus groups and interviews, PHA staff and residents described the social environment of buildings as being like a town or extended family. They indicated that the family dynamic of public housing buildings had health implications for individuals and the community as a whole. For example, residents and service coordinators spoke about intergenerational assistance: younger residents assisting seniors in their buildings with tasks such as transportation to appointments or carrying groceries, and seniors assisting younger disabled residents with cooking or mentoring on topics like social etiquette or managing finances. A few participants' comments captured these perspectives:

“Because every building has a sense of community within itself. So they look out for each other. If they don't see each other for a while, they'll say, ‘Where's Ted? He hasn't come down to eat.’ So it's a sense of family within a family. And some people have estranged family or burned bridges because of substance abuse or whatever their past was, so they're not really connected with their outside family. So the building provides another sense of family for some people.” —Resident service coordinator

“Last night I had to go and open up a unit for the wellness check. And the person ... they were doing the wellness check for was in a wheelchair and was elderly, but her support in the building were the younger people ... There was a core group of younger people that were very ... you know, they looked up to her as kind of their mentor—so they were very concerned about her.” —Resident service coordinator

Residents and housing authority staff also noted that the resident social environment influenced whether and how residents came together to form resident organizations (ROs) or resident advisory boards (RABs). Residents explained that this type of organizing was important for making decisions about the use of community resources to secure on-site programs and services and for addressing issues or neighborly conflict in the building—all of which can improve the resident social environment—and expressed concerns about decreasing funds for these organizations. Public housing property managers and service coordinators noted that resident organizing can improve the social environment of the building. As one resident explained:

“We have RO meetings, and people come and participate ... They tell people, the RO members, about the problems they're having. And the RO helps them with their problems that they're having ... They have events for the residents—it seems like all year round. And the residents like that ... So it's very much activity going on in this building because the RO is always really active, giving events and things, having events for the residents.” —Resident, mixed-population building

Furthermore, some residents who had lived in subsidized housing in private apartment complexes noted that the social environment in designated housing buildings was more of a family environment and said they felt a greater sense of unity than they had in market rent apartments.

Research question 2: How common is resident conflict in public housing developments designated for seniors and/or people with disabilities? How does it relate to the use of the rule?

As previously described, the designated housing rule was enacted amid significant political controversy over how best to provide affordable housing for seniors and non-elderly people with disabilities and, specifically, how to best address resident conflict within buildings housing a mixed population. Only a limited number of studies in the past few decades have attempted to document tenant problems in designated public housing.

In 1992, before the designated housing rule existed, the GAO conducted one of the first studies on resident conflict in designated housing. The researchers surveyed staff from more than 1,000 PHAs managing more than 300,000 federally funded senior housing units, and found that 31 percent of non-elderly residents with mental disabilities (as perceived by the staff)—who qualified for senior housing under previous HUD definitions—exhibited behavior that created moderate to serious problems for neighbors, management, and staff, compared

with just 6 percent of senior residents.³³⁴ The study also found that staff at large housing authorities (500 or more units) attributed a greater share (35 percent) of the problems occurring in senior developments to residents with mental disabilities than did staff at medium (between 100 and 499 units) and small (fewer than 100 units) authorities, 22 percent and 11 percent, respectively. All housing authorities engaged in the study reported that poor housekeeping, disruptive visitors, excessive noise, and alcohol abuse were the most common source of conflict associated with non-elderly residents with disabilities.³³⁵

In 1996, the University of Connecticut conducted a survey, at the request of the Connecticut legislature's Select Committee on Housing, to measure the extent of negative incidents in state-subsidized senior housing, specifically to address the issue of mixed populations. The survey found that non-elderly residents with disabilities were more likely to violate the terms of their lease, including engaging in disruptive behavior, not paying rent, and failing to maintain the unit. However, it also found "little evidence to support the conclusion that the majority of non-elderly disabled tenants pose management problems."³³⁶ According to the analysis, serious, recurrent problems involving younger disabled residents were concentrated in a small group of housing authorities, but limitations of the data were acknowledged, including examining the issue from only the management's perspective and potential differences in categorizing and reporting negative incidents.³³⁷

Conflicts between non-elderly people with disabilities and seniors living in the same public housing projects have been cited as a problem over the past several years, though the information often is anecdotal. In 2004, a survey of PHAs in Connecticut was conducted in conjunction with a review of public health testimony. When PHA staff members were asked to what extent, if any, such conflicts existed in their state-funded senior housing projects, a majority indicated significant (23 percent) to moderate (41 percent) conflicts.³³⁸

In interviews and focus groups, PHA staff indicated that use of the designated housing rule helped to decrease conflicts among residents and improve living environments. PHA staff cited a number of direct effects, including reducing resident conflict, enabling residents with similar lifestyles and service needs to live together, and providing senior residents with the choice of living in a senior-only setting.

Residents in focus groups expressed differing opinions about living in public housing designated for seniors only or for mixed populations:

Senior-only housing is "nice and quiet ... It's nice to have those people around, basically, your same age, the same interests, or grew up, probably, in the same era that you did to share things with." —Senior resident

"You put me in a senior's building, have me thinking I'm going to the old folks' home. So I like the [mixed population]." —Senior resident

"What we have in [senior-only] housing is a commonality. Senior people are concerned with the same things—health and health and health and health." —Senior resident

"The first day that I came [to mixed-population housing] ... I felt uncomfortable about seeing elderly and just feeling judged by them. But as I came to meet people here, I felt more comfortable with living here, and I am grateful to have housing here." —Younger resident with disabilities

According to public housing administrators, the designated housing rule has been critical to decreasing unit turnover by enabling PHAs to foster more cohesive social environments within buildings and to more effectively and efficiently coordinate services for residents with similar needs. High rates of unit turnover can place a substantial administrative and financial burden on PHAs, so these findings indicate that the rule is useful in helping them manage their bottom line and achieve organizational goals.

Public housing administrators who participated in focus groups described the designated housing rule as one way to address the “tipping point” of the resident social environment that exists when mixing populations with differing lifestyles. Two administrators described the tipping point:

“What you saw as the buildings became more [populated] with more disabled households, the range of issues inside the buildings became completely unmanageable. And at some point, each building has a tipping point ... And then the property management issues become severe. Then what are you left with? Eviction.”

“About there being a tipping point ... you get to a point also where the social stability of the community is itself a positive health reinforcement—particularly for seniors. That if they have a good community of folks there who—for most of our folks, that's their social life as well as their living arrangement. They go down to the community hall and have coffee, or they'll play bridge ... But they're not going around all of [the city]. They're not leaving the neighborhood most times ... It's like a safety net for a lot of folks who otherwise would not have any social outlet. And that's a really important piece for them. So when that gets disrupted by, maybe a younger disabled resident, or an upheaval in the building, that's a really significant issue.”

It should be noted that use of the designated housing rule for the sole purpose of addressing resident conflict could be interpreted as a violation of the Fair Housing Act. The designation of a property must be tied to a demonstrated need for affordable housing among the designated population through the Consolidated Plan or through expected health, safety, and well-being improvements based on objective experience and facts.³³⁹ A number of factors can influence the resident social environment, including management practices, coordination of health and social services, and building security. (See Administration and financing of designated housing, Page 76.)

Though limited in number, the GAO and Connecticut studies document the nature and relatively common occurrence of resident conflict in public housing occupied by seniors and people with disabilities. Their findings and the opinions shared in focus groups suggest that resident conflict, first assessed nearly 25 years ago, remains an issue today. The evidence of social environment’s impact on health and quality of life, coupled with the range of preferences residents expressed about living in public housing designated for seniors or mixed populations, highlights the importance of housing choices and efforts to foster support networks and social participation in designated public housing.

Housing design and accessibility

Accessibility features—elements that make housing safer and more responsive to users of all ages and abilities—are important for reducing falls, supporting independent living, and promoting mobility and socialization, all of which have implications for health and safety. Two main types of accessibility are relevant to public housing: physical accessibility and program accessibility.

Physical accessibility is defined as a site, building, or other facility that “can be approached, entered, and used by physically disabled people.”³⁴⁰ Physical accessibility features inside the home include, for example, grab bars in bathrooms and wider doors and features within the development or neighborhood, such as elevators and sidewalk ramps. Program accessibility “means that a program, when viewed in its entirety, is readily accessible to and usable by people with disabilities.”³⁴¹ This section focuses on physical accessibility features and aspects of housing infrastructure. It describes the extent to which these features exist in affordable rental properties and reviews the available evidence regarding the health implications of accessibility for low-income seniors and people with disabilities.

Making systematic accessibility improvements

Greensboro, NC
Public Housing Units: 2,624
Housing Choice Vouchers: 3,242*

The Greensboro, North Carolina, Housing Authority used funding from an American Recovery and Reinvestment Act grant, its own reserves, and capital improvement dollars, to renovate the Stoneridge senior housing community and to make its 50 two-story units more

accessible for residents with disabilities.[†] Three units were demolished and reconstructed as wheelchair-accessible, single-story apartments. The remaining apartments had chair lifts installed on stairways, electrical upgrades, and visual doorbell systems for hearing impaired residents.[‡] A new, accessible community building, constructed to Leadership in Energy and Environmental Design (LEED) standards, provides space for offices and events. In 2012, the authority received a Building Healthy Homes award from the Greensboro Housing Coalition's Housing Summit for the construction and renovation at Stoneridge.[§]

* U.S. Department of Housing and Urban Development, "Housing Authority Profiles," accessed May 28, 2015, <https://pic.hud.gov/pic/haprofiles/haprofilelist.asp>.

† Greensboro Housing Authority, "Stoneridge Upgrade Complete," *Community News* (Winter 2012), accessed March 10, 2015, <http://www.gha-nc.org/files/pdf/about-us/publications/newsletters/Winter%202012.pdf>; Greensboro Housing Authority, "Greensboro Housing Authority Receives Building Healthy Homes Award," accessed March 10, 2015, <http://www.gha-nc.org/files/pdf/stoneridge%20award.pdf>.

‡ Council of Large Public Housing Authorities, pers. comm., Jan. 8, 2015; Greensboro Housing Authority (2012), "Greensboro Housing Authority Receives Building Healthy Homes Award," accessed March 9, 2015, <http://www.gha-nc.org/files/pdf/stoneridge%20award.pdf>.

§ Greensboro Housing Authority, "Greensboro Housing Authority Receives Building Healthy Homes Award."

Research question 1: To what extent does the current supply of adequate and accessible housing meet the need among seniors and people with disabilities?

Federally funded new construction and federally financed housing undergoing substantial renovations must comply with Section 504, which requires that 7 percent of the dwelling units meet accessibility standards (5 percent accessible to persons with mobility disabilities and 2 percent accessible to persons with hearing or visual disabilities).³⁴² Additionally, the ADA required all government housing to be accessible. The Fair Housing Act requires that developments be designed and constructed to include certain features of accessible design, and the Fair Housing Accessibility Guidelines serve as a form of technical assistance to help states, local governments, and the housing industry comply with these requirements.³⁴³

These and other federal laws and policies prohibit housing discrimination against people with disabilities, which includes having equal opportunity to use and enjoy a dwelling unit and public and common areas. (See Housing discrimination and choice, Page 41.) However, most public housing was built before the passage of these laws and was not constructed to be accessible to all.³⁴⁴ Therefore, many developments need modifications to meet the Section 504 and ADA requirements.

Research suggests that public housing authorities have room to improve with regard to the accessibility of their public housing properties. For example, a study conducted in 2008 that assessed physical accessibility of 14 developments concluded that many were not compliant with ADA requirements and called for better enforcement.³⁴⁵

Evidence suggests that newer construction—developments built in 1991 or later—may be more accessible: One study of developments constructed between 1991 and 1997 reported high conformance with Fair Housing Accessibility Guidelines.³⁴⁶

In general, most of the housing stock in the United States does not have optimal accessibility. One study estimated that roughly 90 percent of the nation’s units are inaccessible to people with physical disabilities.³⁴⁷ A HUD study of rental housing in Chicago found that one-third of advertised properties were inaccessible to wheelchair users to even visit.³⁴⁸

Many U.S. households that have at least one member with a physical disability do not have the home modifications needed to make their units safe and accessible. One study found that among households with senior residents with a disability, less than half that need a ramp have one.³⁴⁹ It is projected that the proportion of the population with a physical limitation will increase from 8.2 percent in 2000 to 11.6 percent in 2050, and the percentage with a self-care limitation will rise from 2.9 percent to 4.6 percent over the same period.³⁵⁰

Residents in public housing who need accessible housing features can submit reasonable modification or accommodation requests to their PHAs. Under the Fair Housing Act and Section 504, PHAs must make “reasonable accommodations in rules, policies, practices, or services when such accommodations may be necessary to afford a person with a disability the equal opportunity to use and enjoy a dwelling.”³⁵¹ These can include installing grab bars, lowering a peephole in a door, or allowing a service or support animal in a building with a “no pets” policy.

Data from a large public housing authority from 2013 to 2014 provide examples of the types of accommodations requested.³⁵² The authority received 282 requests over a six-month period and approved 27 percent of them. Eight percent were denied, probably because they were not deemed required based on an interpretation of fair housing laws. The remainder included some that were pending further investigation (40 percent) and those that were closed due to withdrawal of the request or an agreement reached with the tenant (25 percent). The most commonly approved requests were for transfers to a more accessible unit (31 percent of requests and 35 percent of approvals). Housing authority staff indicated that these requests often were the result of a resident no longer being able to climb stairs.

The data also show that nearly 1 in 3 requests received by the housing authority came from residents with housing choice vouchers, living in HUD-subsidized units operated by private property owners. These findings together with those from studies on the general housing stock summarized above suggest that privately owned and operated properties may lack adequate accessibility for low-income households.

HUD has deployed an array of resources to support accessibility modifications and the creation of housing that is free of barriers for residents with disabilities. These programs include:

- HOPE VI and Choice Neighborhoods funding that PHAs can use to modernize and renovate public housing, including improving accessibility features for seniors or people with disabilities.³⁵³
- HUD’s Section 232 program, which provides mortgage insurance to facilitate the construction and rehabilitation of assisted living and other health care facilities.³⁵⁴
- Section 9 Capital Funds support that PHAs receive from HUD annually on the basis of a formula related to the number of units they own and operate. These dollars can be used to retrofit, rehabilitate, or preserve public housing, or for simple alterations to make the units accessible (e.g., installing grab bars).³⁵⁵ For fiscal year 2014, Congress appropriated \$1.875 billion for the Capital Fund.³⁵⁶ However, as previously noted, HUD has indicated that this amount is insufficient to address the significant backlog of capital work in public housing.³⁵⁷

In focus groups and interviews, PHA property managers and other staff cited insufficient resources for capital improvements and property modifications as the most common challenge to making properties accessible. Staff from several authorities with older housing stock, particularly those with high-rise properties designated for seniors and people with disabilities, highlighted this concern, which was captured by one participant, who said:

“I think you also have to look at the age of our housing stock. So the problem is being able to retrofit or to renovate. The biggest problem is to find the capital funds to do the work ... Even though a unit may be considered an accessible unit, that does not mean they still have the room to get around in their unit in the scooter or the wheelchair, because of the existing size and square footage of the unit ... One of the greatest challenges is to be able to renovate a building or a unit specifically in order to provide that space. There's just no way to provide that space unless you would do something like reduce the number of units in the building and then redo the whole building to take portions of another unit to expand other units. And then, again as I said, where do you get the money to do that?”

Despite the limited capital funds, staff from housing authorities also indicated that when investments had been made to retrofit or rehabilitate a property, they took advantage of these opportunities to improve the accessibility of all units. One focus group participant explained the strategy this way:

“[Our properties] just went through a major rehab, and only the reasonable accommodation 504 units were scheduled to have just the grab bars in the bathroom. Well, we had gone through a situation where someone did fall, so we decided to place grab bars in all the units because you have that broad resident spec[trum] of people that need them. So we put grab bars in all the units to help—you know, even if they didn't need them, that they were there in case they did.”

Research question 2: How does inadequate or inaccessible housing affect the health and safety of these populations?

Seniors and people with physical disabilities who live in public housing are vulnerable to unintentional injuries and other environmental health risks related to the lack of accessibility features or safety equipment.³⁵⁸

Falls

Falls are the leading cause of unintentional injuries resulting in death for adults 65 or older in the United States, with 21,649 documented in 2010.³⁵⁹ Nonfatal falls for adults 65 or older (totaling more than 2.4 million in 2012) can result in serious harm, such as fractures, lacerations, or traumatic brain injuries that require acute medical care or hospitalization and potential relocation to an assisted care facility.³⁶⁰ Evidence suggests that 20 to 30 percent of seniors who fall suffer moderate to severe injuries, such as lacerations, hip fractures, or head trauma.³⁶¹ Many people who fall also develop a fear of falling, even if they were not injured. This fear may lead people to be less mobile or physically active, which in turn increases their risk of falling.³⁶² Furthermore, seniors age 75 or older who fall are four to five times more likely than those age 65 to 74 to be admitted to a long-term care facility for a year or longer as a result of their injuries.³⁶³ Falls and related injuries can decrease mobility or independent living and increase the risk of poor health.³⁶⁴

Fires and burns

Fires or burns resulting in death also are fairly common among seniors. In 2012, more than 26,000 seniors age 65 or older suffered nonfatal burn injuries.³⁶⁵ Burns also accounted for 2.6 percent of deaths among this age group.³⁶⁶ Furthermore, research demonstrates racial and ethnic disparities in burn-related deaths among seniors: One study found that compared with non-Hispanic whites, Native American and African American people older than 55 had up to three times the risk of death from fires and burns. The study suggests that poor housing quality among nonwhite households could explain some of the difference.³⁶⁷

Accessibility features and universal design

The design of housing developments and residential environments can reduce the risk of injury or death, improve public safety, and help residents maintain independence. Universal design—the creation of environments that promote access to the home for all persons regardless of age or ability—suggests modifications that can help residents maintain independence and reduce the risk of injury or death.³⁶⁸ For example, falls and related unintentional injuries can be prevented by making certain modifications to housing units and residential common areas, including reducing tripping hazards, adding grab bars inside and outside tubs and showers and next to toilets, adding railings on both sides of stairways, and improving lighting.³⁶⁹ The risk of burns can be reduced by installing anti-scald valves on shower and tub faucets and by installing induction cooktops in kitchens.³⁷⁰

To maintain independence, seniors and people with disabilities may require accessibility features, such as lever door handles, ramps, wider doorways to accommodate wheelchairs, nonslip floor surfaces, bathroom aids such as roll-in/walk-in showers with handheld showerheads, and open work counters in kitchens and other areas that allow for use in wheelchairs or while seated.³⁷¹ Many developments designated for seniors and people with disabilities are high-rise buildings and need to have adequate wheelchair-accessible elevators.

In focus groups, many designated housing residents expressed concerns about the accessibility of their units and housing developments. Several mentioned the challenges for people with mobility limitations in high-rise buildings who could not easily access their apartments due to inadequate space in hallways and elevators for wheelchairs or scooters. Residents also noted that narrow hallways limited access for visitors reliant on wheelchairs and for emergency responders with medical equipment. Two residents captured these perspectives:

“We have younger people here with disabilities and some of them are in wheelchairs or electric chairs. I could really, really feel for them, because we have two elevators. And the residents that are here right now have troubles and problems with their scooters. And the elevators [are] all filled up, and then they have to wait. ‘Oh, I’m still waiting. I’ve been waiting.’ ” —Senior resident, mixed-population building

“When they build the buildings ... make sure that they have the hallways big enough and the elevators big enough and the floors tall enough that you can get your furniture in. There’s apartments here, the paramedics can’t even get around the corners to get you if you fall down in the kitchen or the living room. They have to drag you out and load you up in the hallway.” —Senior resident, senior-only building

Some residents mentioned that even when they had accessibility features in their units, the design and placement of these features were not always appropriate for their needs. Many designated housing residents also expressed concerns that substantial building renovations can cause displacement, disruption, and stress, and they suggested that PHAs could improve their communication with residents regarding timeframes and policies throughout construction.

Public safety and community space

The design of buildings also can improve public safety. Aspects of environmental design that can aid in crime prevention include visibility from the street, landscaping or fences that direct visitors to appropriate entrances and away from private areas, and maintenance of the structure.³⁷²

Community infrastructure within a public housing development also is an important consideration. For example, common space can foster connections and physical activity. Focus groups and interviews with public housing authority staff and residents revealed that, for residents with limited mobility, common areas may be the most accessible spaces they have for recreation and socialization, even in neighborhoods with parks or community centers. Residents also said that these common spaces provide a neutral and safe place to get to know other residents in the building. Evidence shows that designating community space for meaningful use, such as a

community garden or library, can create opportunities for increased physical and mental well-being, allowing residents to develop or enhance social networks and share information.³⁷³

Neighborhood characteristics

Characteristics of the neighborhood environment—such as transportation access, levels of racial and economic segregation, and crime rates—can be important to the health of seniors and people with disabilities. This section reviews the available evidence regarding the relationships between neighborhood characteristics and health outcomes such as physical activity, chronic disease, mental health, and mortality. It also presents data on the neighborhoods surrounding designated public housing properties. Although PHAs do not have control over the characteristics of the neighborhoods surrounding existing public housing properties, using readily available data regarding neighborhood characteristics could help PHAs connect residents to local resources and services and select properties for designation.

Research question 1: How do neighborhood characteristics in the built environment affect the health and social inclusion of seniors and people with disabilities?

Built environment characteristics, such as access to affordable transportation and healthy foods as well as neighborhood walkability and accessibility, can be important to the health of seniors and people with disabilities. Low-income senior and disabled public housing residents often have limited mobility and low-income households are less likely to own a private vehicle compared with those with higher incomes.³⁷⁴ Affordable public transportation plays an important role in accessing medical providers, grocery stores, jobs, and banks and, thus, affects health outcomes that stem from employment, income, preventive health care, and access to healthy foods.

The health benefits of physical activity, such as walking, include reduced morbidity and mortality and improved mental health.³⁷⁵ Research suggests that walking for exercise or transport is more likely when seniors live in pedestrian-friendly neighborhoods, such as those with intact, level sidewalks, clearly marked crosswalks, convenient amenities (especially transit, commercial areas, and parks), a high density of street intersections, housing and population density, pleasant scenery, safety from traffic, and adequate lighting.³⁷⁶ One study found that older adults who are physically active outdoors accumulate significantly more minutes of moderate-to-vigorous exercise compared with those engaging in indoor-only activities.³⁷⁷

Neighborhood characteristics also can influence physical activity for people with disabilities. One study of active living among people with physical disabilities found that people who live in neighborhoods with more high-quality walking surfaces (i.e., surface of path, topography), adaptive signage and accessible intersections (e.g., auditory signals at crosswalks, sufficient time to cross), and higher density of destinations were more likely to report involvement in leisure-time physical activity.³⁷⁸ In focus groups and interviews, some public housing residents described how the convenience of neighborhood characteristics such as grocery stores or green space helped to support walking and physical activity:

“It’s convenient to the supermarkets, shopping, the grounds are nice for walking. And we have a park across the street and a children’s playground right over there. And, so, I like the neighborhood and the building.” — Resident, mixed-population building

By the same token, research suggests that poor infrastructure quality can lessen the benefits of compact neighborhoods. Issues such as uneven, heaved, or missing sidewalks; insufficient street lights; limited safety and security; a lack of access to public transportation; and inadequate neighborhood amenities, such as seating, railings, handrails, and ramps, can curb seniors’ physical activity in their neighborhoods.³⁷⁹ These factors also have been associated with increased likelihood of being overweight among older adults.³⁸⁰ Similarly, a study that investigated environmental factors affecting people with physical or visual impairments in urban neighborhoods found that many reported barriers to physical activity, including inadequate maintenance of basic facilities and

accommodations (e.g., sidewalk pavement and curb cuts) and puddles or poor drainage.³⁸¹ However, another study found that street and sidewalk conditions had no effect on mobility among adults with only mild impairment. Only those with more severe impairment reported difficulty walking where streets were in very poor or only fair condition.³⁸²

Elements of the physical environment and transportation systems also may facilitate seniors' connections with their community, which are important to health. For example, one study found that older adults living in neighborhoods with adequate accessible parking had higher engagement in several social and work activities.³⁸³ Additionally, proximity to public transportation was associated with the ability to participate in social, leisure, and work activities, and with the ability to perform everyday tasks such as shopping or travel to appointments.³⁸⁴

Neighborhood access to healthy food may affect the ability of seniors to maintain cardiovascular health and optimal weight. For example, a national study of older women found that those who lived in neighborhoods with a greater availability of grocery stores and supermarkets were less likely to be overweight or obese compared with those who had fewer grocery stores and supermarkets in their neighborhoods.³⁸⁵ Women who lived in neighborhoods with greater access to fast-food restaurants were more likely to be overweight or obese compared with those who had less fast food nearby.

In focus groups and interviews, PHA staff and residents highlighted the importance of neighborhood characteristics in maintaining or promoting the health of residents. Many participants described the challenges they face in accessing healthy foods and other essential goods and services:

“When the government, whoever, decide where they're going to build the buildings or the land that they choose, it's nice to take into consideration how far it is from your major hospitals. Is it near bus lines? Because one of the biggest problems we have is getting to and from the doctor, to and from the store, for those that don't drive and can't walk. It's horrible. There's five places within a 4.5-mile radius that will give out free food. But unless you have a car or a way to get there, you cannot get it. And that's a big, big problem.” —Resident, senior-only building

“There's still not really a grocery store close. They opened up a small market, but still a good six, seven, eight blocks away. So [residents] would have to walk to that. So you know, they're shopping a lot at the 7-11, the little convenience stores that are just a couple blocks away because they don't really have access immediately to fresh food and stuff like that.” —PHA property manager

Research question 2: How does neighborhood access to medical care or clinics affect the health of seniors or people with disabilities?

Neighborhood access to medical care, especially services within walking distance, is important to low-income seniors and people with disabilities, many of whom have social or medical needs and limited mobility. Research shows that people with disabilities face particularly substantial challenges in accessing medical care due to mobility limitations, and use medical care resources much more intensively than people without disabilities.³⁸⁶ For low-income seniors, having fewer financial resources can limit transportation options, which in turn decreases access to medical care.³⁸⁷ A study of senior Seattle Housing Authority residents living in poverty found that although more than 90 percent of the residents knew where to go to access care, nearly 46 percent reported problems obtaining care due to lack of money to pay for medical services or lack of private health insurance (22 percent), inadequate transportation options (10 percent), or needing to travel great distances (10 percent).³⁸⁸

In focus groups, several public housing residents mentioned the challenges they and their neighbors face in accessing medical care because of a lack of transportation or the high cost of transportation:

“I was taken to the hospital by ambulance; I had to walk back home. Everybody in my family was working; they were busy, I couldn't get ahold of them. I just had to walk.” —Resident, mixed-population building

“But it does take some excess money that some residents maybe [do] not have, like our Access-A-Ride or our RTD shopping bus that we get. It still takes an extra couple of dollars, not too much to other folks, but for those that are on limited income to have that, \$2.50, \$3 one-way to get to a facility to get your therapy in the water pool. That's \$6 a day when you need that therapy ... three times a week ... or more.” —Resident, senior-only building

Neighborhood racial and economic segregation has been associated with disparities in access to and quality of medical care, including fewer physician visits, lower supply of specialists, and reduced odds of receiving appropriate care for chronic conditions such as cancer.³⁸⁹ These disparities are related to the geographic distribution of medical providers and to providers' participation in Medicaid and Medicare and willingness to accept uninsured patients.³⁹⁰

Federally Qualified Health Centers (FQHC) offer a safety net, providing primary medical care to low-income populations in the United States and addressing disparities in access to medical care. They serve nearly 1 in 4 low-income Americans, with 90 percent of patients living below 200 percent of the federal poverty level. Seventy-five percent of FQHC patients are uninsured or on Medicaid.³⁹¹ An analysis of county-level demographic data and health center data between 2000 and 2007 suggests that counties with higher percentages of low-income and racial and ethnic minority residents are more likely to have an FQHC.³⁹²

Creating 'senior campuses' to provide continuity in housing and services

Recognizing that seniors' housing and service needs change as they age, several public housing authorities have worked with local partners to develop “senior campuses,” where residents can remain in their communities even as their health care and support requirements intensify.

Seattle, WA
Public Housing Units: 6,153
Housing Choice Vouchers: 10,427*

In partnership with nonprofit providers, the Seattle Housing Authority's NewHolly neighborhood is home to a 318-unit Elder Village where senior residents live near neighborhood resources, including grocery stores, transit options, and community spaces.[†] The village's three properties—Esperanza Apartments, Park

Place, and Peter Claver House—provide housing options and services to support aging seniors. Esperanza Apartments has 84 wheelchair-accessible one-bedroom apartments available for low-income seniors and people age 55 or older with disabilities that are made affordable through the Low-Income Housing Tax Credit (LIHTC) program.[‡] When residents' service needs increase, nearby Park Place (a 154-unit building licensed by the state) offers assisted living and community resources for persons 62 or older.[§] Services are available even to extremely low-income seniors through a combination of 126 Seattle Housing Authority project-based Housing Choice Vouchers and through Community Options Program Entry System, a Washington state Medicaid program designed to provide nursing-home-level care to seniors in their homes or in community-living environments. A federal Section 202 grant funded construction of Peter Claver House, which is now owned and managed by Providence Health and Services. Service coordinators help low-income senior residents in the 80-unit building identify and access the local resources and community-based services they need to remain healthy and independent. These units provide another housing resource for low-income seniors in addition to several senior-only designated public housing properties.

Milwaukee, WI
Public Housing Units: 3,871
Housing Choice Vouchers: 6,200¹¹

The Housing Authority of the City of Milwaukee used LIHTC funds to establish a 37-unit senior public housing property called Olga Village on the United Community Center campus.[#] The campus predominantly serves Hispanic seniors because of its bilingual and culturally relevant programs, and allows for continuity of

services even as seniors' needs change.^{**} The campus includes a senior center that provides a number of different services and activities, including meals seven days a week, physical therapy, and social activities. As their needs intensify, seniors can use the on-site adult day care program while maintaining a familiar routine and benefiting from social networks they developed through the senior center. A FQHC satellite clinic on the campus specializes in geriatric care and helps seniors receive necessary medical care.

* Seattle Housing Authority, pers. comm., April 20, 2015; U.S. Department of Housing and Urban Development, "Housing Authority Profiles," accessed May 28, 2015, <https://pic.hud.gov/pic/haprofiles/haprofilelist.asp>.

† Seattle Housing Authority, "Elder Village," accessed March 9, 2015, <http://www.seattlehousing.org/redevelopment/newholly/elder/>.

‡ Seattle Housing Authority, pers. comm., April 20, 2015.

§ Seattle Housing Authority, "Elder Village."

|| U.S. Department of Housing and Urban Development, "Housing Authority Profiles."

Housing Authority of the City of Milwaukee, *Financial Statements, Milwaukee, 2013*, accessed May 28, 2015, http://www.hacm.org/agency%20plan%20and%20annual%20reports/Financial%20Statements/HACM_%202012_Financial_Statement-Final.pdf.

** United Community Center, accessed May 28, 2015, <http://www.unitedcc.org>.

Research question 3: How does neighborhood affordability or segregation affect the health of seniors or people with disabilities?

Racial and economic segregation is a well-documented predictor of health disparities for racial and ethnic minority populations.³⁹³ Residential segregation tends to restrict access to educational and employment opportunities, healthy foods, medical care, and other health-promoting resources.³⁹⁴ These neighborhoods also may have high levels of violence or crime rates.³⁹⁵

Racial segregation has been linked to a number of negative health effects, such as poor general or mental health, adverse pregnancy outcomes, and increased rates of chronic disease and mortality.³⁹⁶ Likewise, an analysis of death certificate data across Boston from 1999 to 2001 estimated that the incidence of premature mortality was 1.39 times higher among those living in neighborhoods where more than 20 percent of residents lived in poverty compared with those where less than 5 percent of residents were poor.³⁹⁷

Neighborhood segregation and economic conditions also have been shown to affect mental health and cognitive function. For example, life satisfaction and psychological distress have been linked to economic segregation, particularly for adults who experienced discrimination.³⁹⁸ Research indicates that cognitive functional declines are an important marker of health among aging populations, because they are an important contributor to institutionalization and can be a precursor to severe dementia or Alzheimer's or cause major impairment.³⁹⁹ Research suggests that individuals living in poverty and in high-poverty neighborhoods are at elevated risk of declining cognitive function, because the negative effects of being poor may be compounded by the impact of neighborhood-level poverty.⁴⁰⁰

However, not all research supports these conclusions. Some studies have found protective health effects from neighborhood segregation through increased social capital, while others suggest that the effect of racial segregation on health may be mediated through individual characteristics.⁴⁰¹ For example, analysis of data from the national Health and Retirement Study and the U.S. Census found that, although individuals living in moderately and highly racially segregated neighborhoods were more likely to experience death or a major decline in health during the study period, after accounting for socioeconomic status, the effect of segregation was severely reduced.⁴⁰²

Yet, in focus groups, some public housing residents seemed to echo the concerns around neighborhood segregation when they expressed the importance of living in socially and economically diverse communities. For example, one resident stated:

“I'm glad that we're in this building, this neighborhood, because unlike the other ones that are stuck in the poor neighborhoods. At least because if we're poor, we're integrated socially, economically, with other groups.” —Resident, mixed-population building

Many residents and PHA staff also spoke about the impact of changes in the neighborhood residents surrounding public housing buildings. Several tenants expressed concern that an influx of higher-income occupants into their neighborhood was resulting in increased isolation and loss of community for public housing residents. One resident said:

“The people who come here now are settlers. They're not interested in us. We're like another species. So there's no integration. And the people who, they may be creating a new community of their own, but we don't know anything about it.... Now we have to replace what used to happen organically with all these attempts to deliver services. Before, half of those services were simply provided by the community, by the families themselves.... You can't get rid of class prejudice. People aren't even aware of it. When you walk down the street and people just walk through you like you're not there, there's nothing you can do about that. You can't educate rich people or scientists or something to suddenly start fraternizing with retired public works people or something like that. Ain't gonna happen.” —Resident, family building and resident leader of a jurisdiction-wide tenant organization

Some property managers and service coordinators expressed that although the changing neighborhood composition around their properties presented challenges, staff had worked with neighborhood associations and local businesses to establish partnerships that could benefit public housing residents and create stronger connections with the broader neighborhood. Staff noted that developing these partnerships will take time and suggested that HUD could use guidance or funding opportunities to help resident groups build connections with local neighborhood associations. The following conversation between two staff members highlights these perspectives:

“I mean, you have this growing neighborhood around, but then you have this huge building in the middle, and they're not really a part of that neighborhood ... [local church groups] were coming into the [neighborhood association] meetings in our building and noticing that none of residents were participating in that meeting. So, that was really awesome on their parts that they noticed that.... And just working together we were able to go out in the community and kind of just bridge that gap to like, hey, these are your neighbors and let's get to know each other. Because it is, I think, looked at as like public housing. They don't realize it's elderly disabled; they think it's just public housing—people who don't have enough money they shouldn't be in this neighborhood. It was hard at first.” —Housing authority staff member

“Although our residents are beginning to participate more in the neighborhood association meetings, they see themselves at odds with the neighborhood association—not being part of the neighborhood. And I think that’s going to take more time to break that down so that they see themselves as part of the larger community, rather than a microcosm of a community inside of a neighborhood.” —Housing authority staff member

Research question 4: What are the neighborhood characteristics surrounding senior-only and mixed-population public housing properties, and do they differ for PHAs with active designated housing plans?

As previously described, after the 1996 passage of the Housing Opportunity Program Extension Act, housing authorities with mixed-population properties were not required to submit designated housing plans if they intended to continue making those properties available to both populations. Additionally, some authorities may have properties that predominately house a mixture of seniors and people with disabilities because of preference or occupancy policies.

Using the estimated number of public housing properties that house predominantly seniors or predominantly a mixed population, this assessment compared the neighborhood conditions of senior-only properties among PHAs with active designated housing plans to senior-only properties among PHAs without active plans, and mixed-population or disabled properties among PHAs with and without active designated housing plans.⁴⁰³ The purpose of this analysis is to compare the neighborhood conditions of average senior and disabled households living in PHAs with and without active plans.⁴⁰⁴

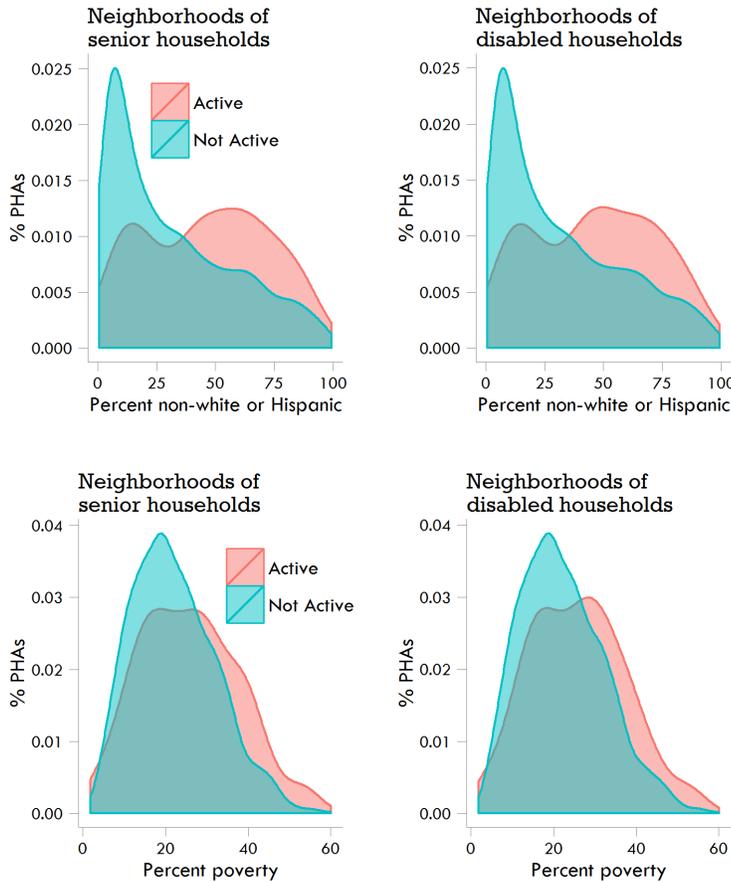
As discussed earlier, PHAs that use the designated housing rule typically own or manage more units than those that do not and are located across the country in large metropolitan areas with high poverty rates. Therefore, neighborhood characteristics of PHAs with designated housing may reflect characteristics common to large metropolitan and high-poverty areas. Nevertheless, this analysis provides useful information on the neighborhood context of designated housing residents.

Results indicate that compared with those not using the rule, PHAs using the designated housing rule generally are located in denser, more diverse, higher-poverty, urban neighborhoods (see Figure 5).⁴⁰⁵ For example:

- The average senior household lives in a neighborhood that is 46 percent nonwhite or Hispanic if their PHA has an active designated housing plan versus 32 percent if their PHA does not have an active plan. Even when controlling for county-level characteristics, senior households in PHAs with active plans also are more likely to be in neighborhoods that are denser, more diverse, and have higher poverty rates. The findings are similar for average disabled households.
- The data suggest that average senior and disabled households in PHAs with active designated housing plans live in neighborhoods where 28 percent of households are extremely low income, compared with 18 percent in PHAs without active plans.
- On average, 4 percent of senior and disabled households in PHAs with active plans live in racially/ethnically concentrated areas of poverty, compared with 2 percent in PHAs without active plans.⁴⁰⁶

Figure 5
Senior and Disabled Households in PHAs That Use the Designated Housing Rule Tend to Live in More Diverse, Higher-Poverty Neighborhoods

Community characteristics, by household type and PHA type



Sources: Data from Census 2010; American Community Survey 2008-12.

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The results also suggest that senior-only, mixed-population, and disabled-only properties of PHAs with active designated housing plans generally are located in neighborhoods that provide access to more transit-friendly jobs and that have a more pedestrian-friendly environment compared with similar properties in PHAs without active plans. For example:

- The neighborhoods of senior and disabled households in PHAs with active plans provide at least 2.6 times more jobs that can be reached via transit compared with those of households in PHAs without active plans.⁴⁰⁷
- Neighborhoods of senior and disabled households in PHAs with designated housing plans also provide access to 32 pedestrian-oriented street intersections per square mile, compared with 21 among PHAs without active plans. However, the neighborhoods of these households in PHAs with active plans also have a lower labor market engagement index—a summary description of the relative intensity of labor market

engagement and human capital in a given neighborhood—compared with the neighborhoods of those in PHAs without active plans.

Table 6 provides a summary of the analysis and findings for seven neighborhood indicators considered.

Table 6

Senior and Disabled Households in PHAs with Active Designated Housing Plans Live in Neighborhoods with More Transit-Friendly Jobs and Pedestrian-Friendly Intersections Than Those in PHAs Without Plans

Neighborhood environments, by household type and PHA type

Indicator	Senior households				Disabled households			
	Absolute		Relative to county		Absolute		Relative to county	
	PHAs with active plans	PHAs without active plans	PHAs with active plans	PHAs without active plans	PHAs with active plans	PHAs without active plans	PHAs with active plans	PHAs without active plans
Percentage nonwhite or Hispanic	46.4	31.6	1.48	1.30	46.2	31.7	1.47	1.30
Percentage population in poverty	25.7	22.1	1.83	1.42	25.8	22.2	1.84	1.43
Percentage extremely low-income	27.6	17.8	2.11	1.46	27.9	17.9	2.14	1.46
Percentage RCAPs/ECAPs	3.7	1.5	-	-	4.4	1.6	-	-
Labor market engagement index	-1.3	-0.7	-	-	-1.3	-0.7	-	-
Transit-friendly jobs*	0.0016	0.0006	-	-	0.0015	0.0006	-	-
Pedestrian road intersection density†	32.3	20.7	1.75	1.79	32.1	20.6	1.73	1.79

Sources: Data from Census 2010, American Community Survey 2008-2012, EPA Smart Locator Database 2013, Comprehensive Housing Affordability Strategy 2006-2010, HUD Affirmatively Furthering Fair Housing Draft Data Documentation

Notes: Differences between comparison groups for each indicator are statistically significant (p-value < 0.05), with the exception of comparisons for pedestrian road intersection density.

* Proportion of jobs that can be reached via transit in the Core Based Statistical Area (CBSA), defined as the total jobs reachable within a 45-minute transit and walking commute as a proportion of total CBSA employment access

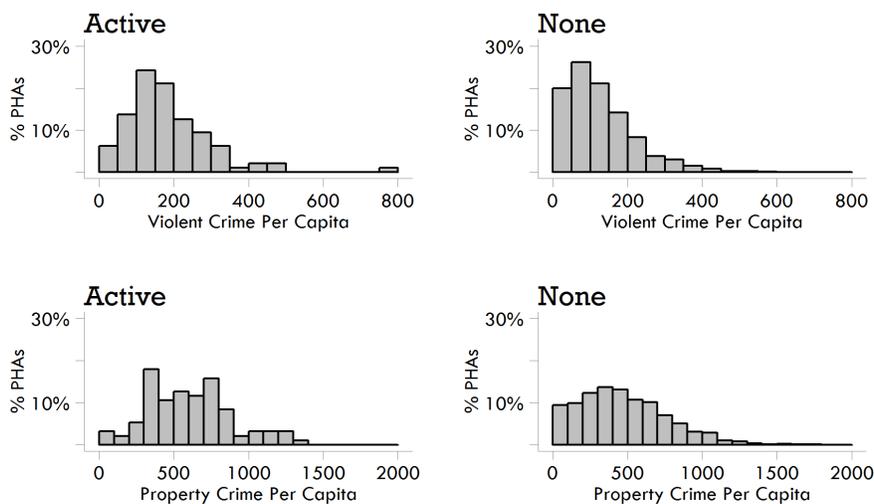
† Intersections per square mile.

Neighborhood indicators related to crime and access to health clinics could not be included in the public housing property-level analysis, because those data are available only at the county level. However, analysis of county-level data suggests that PHAs with designated units are located in counties with higher crime rates, as shown in Figure 6. The median county-level violent crime rate among PHAs with designated housing plans is 163 per 100,000 residents versus 107 for PHAs without plans. The property crime rate also is higher, at 590 and 437 incidents per 100,000 residents for PHAs with and without a designated housing plan, respectively. Neighborhood crime rates and fear of crime have been associated with a number of negative health outcomes, including poorer mental health, reduced physical functioning, and poorer self-rated quality of life through pathways such as physical inactivity, stress and behavioral health, violence, and economic distress.⁴⁰⁸ Z

Figure 6

Violent and Property Crime Rates Are Higher in Counties with PHAs That Have Active Designated Housing Plans

Violent and property crime per 100,000 residents by PHA type



Source: Data from HUD Geospatial Data and Map Services: Assisted Housing Properties, FBI Uniform Crime Reporting Program Data.

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In focus groups, several public housing residents described high rates of criminal activity, including drug sales, occurring in the neighborhoods surrounding their buildings. They also expressed how neighborhood crime can infiltrate public housing buildings and affect residents’ health and sense of safety:

“...There’s a lot of violence, a lot of domestic violence, a lot of that, a lot of illegal prostitution and thievery and establishment crime and rape and all kinds of offenses that go along with alcohol being so close. Two big liquor stores are where they can go, and then they get drunk. And then, if they’re still angry, they go home and get violent with their families.” —Resident, senior-only building

“[Health impacts are] also stress-related. At one point, there was a time where there were some women who would stay down here all night. We’d watch TV. We’d fall asleep. It was just that sense of community. And now I’m no longer foolhardy like that. I used to feel like this is my house, I’m going to be wherever I want

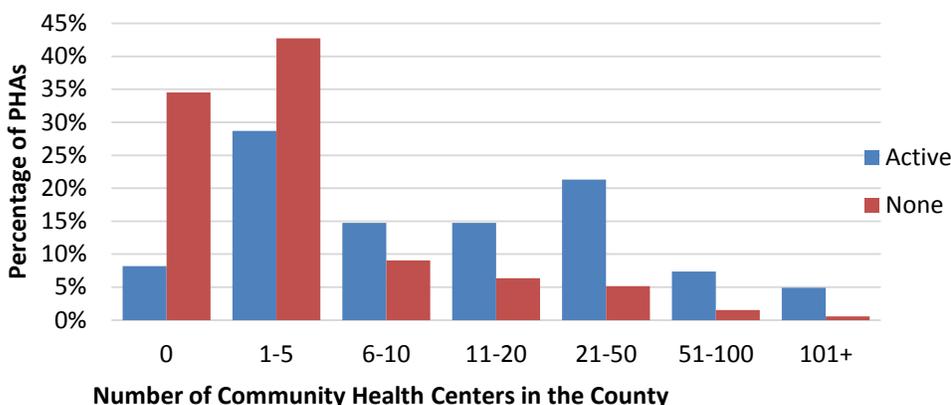
to be. That would be foolhardy now because of this traffic and the kinds of traffic that is coming in [to the building].” —Resident, mixed-population building

PHAs with active designated housing plans also appear to be closer to affordable health services, such as community health centers (CHCs). Ninety-two percent of these PHAs are located in counties with a CHC, compared with 65 percent of PHAs without designated units (see Figure 7). The median number of CHCs in counties with designated units is nine, more than eight times that of counties without designated units.⁴⁰⁹

Figure 7

Access to Affordable Health Services Is Higher in Counties with PHAs That Have Active Designated Housing Plans

Proximity to community health centers by PHA type



Source: Data from HUD Geospatial Data and Map Services: Assisted Housing Properties, U.S. Department of Health and Human Services, Health Resources and Services Administration Data Warehouse.

Additional analyses were conducted to examine potential differences in the neighborhood characteristics of properties within a given PHA’s portfolio. These comparisons should be interpreted with caution due to the small sample size. Although the initial findings suggest meaningful variation in neighborhood characteristics across PHA properties, additional research and ongoing monitoring are needed to further examine the significance of these potential differences.

The initial findings indicate that mixed or disabled properties may be located in neighborhoods with a higher percentage of nonwhite or Hispanic residents, higher poverty, and a lower labor market engagement index compared with predominantly senior-only properties in the same PHA. For example, initial findings suggest that among PHAs with active designated housing plans:

- The average household in a mixed or disabled property probably lives in a neighborhood that is 60 percent nonwhite or Hispanic and where 31 percent of the population lives in poverty.
- The average senior household in a senior-only building probably lives in a neighborhood that is 56 percent nonwhite or Hispanic and where 27 percent of the population lives in poverty.
- On average, households in mixed or disabled properties may be as much as 20 times more likely to live in a RCAP/ECAP compared with households in a senior-only property.

- The average household in a mixed or disabled property may live in a neighborhood with 36 pedestrian-oriented street intersections per square mile, compared with 32 pedestrian-oriented intersections in neighborhoods of senior households living in a senior-only building.

Additionally, the data suggest that households in senior-only properties in PHAs with active designated housing plans may live in neighborhoods with lower percentages of nonwhite or Hispanic residents, lower poverty rates, and a higher labor market engagement index compared with senior households in other PHA-owned properties. Compared with those in non-senior-only properties in the same PHA, the average senior household in a senior-only property is in a neighborhood where:

- The population is 4.5 percent less nonwhite or Hispanic.
- Poverty rates are 1.3 percent lower.
- The percentage of extremely low-income households is 2.1 percent lower.
- There are 5.3 more pedestrian-oriented street intersections per square mile.

Conversely, the average senior or disabled household in a predominantly mixed or disabled building within a PHA with an active plan may live in a neighborhood with a greater share of nonwhite or Hispanic residents, higher poverty rates, and a lower labor market engagement index versus comparable households in other PHA-owned properties. Compared with those that do not live in mixed or disabled properties, the average senior or disabled household in a mixed or disabled property in the same PHA may live in a neighborhood where:

- The population is 5 percent more nonwhite or Hispanic.
- Poverty rates are 2.9 percent higher.
- The percentage of extremely low-income households is 3.9 percent higher.
- There are seven more pedestrian-oriented street intersections per square mile.

These findings suggest differences among the neighborhoods surrounding predominantly mixed or disabled properties compared with senior-only properties as well as with other property types within the same PHA. However, as previously stated, these data should be interpreted with caution.

Administration and financing of designated housing

One of HUD's goals in making changes to the designated housing rule is to clarify and streamline the procedures by which PHAs designate housing for seniors and people with disabilities. This section highlights the benefits and challenges for PHAs using the rule, and discusses how the rule intersects with trends in public housing financing and administration.

Research question 1: What are the current administrative benefits for PHAs using the designated housing rule?

In focus groups and interviews, PHA staff and residents described several administrative benefits of using the designated housing rule, including reduced conflicts within buildings, more efficient coordination of services for residents, decreased unit turnover, choice in living environments for seniors, and increased access to affordable housing. As previously discussed, PHA staff indicated that use of the rule, particularly to create senior-only housing, has effects on the resident social environment, such as enabling PHAs to foster cohesive communities and to attend to service coordination needs that promote community health.

Many PHA leaders, resident service coordinators (RSCs), and property managers described challenges they face in managing and supporting buildings with a mixed population of seniors and people with disabilities. Staff identified lifestyle differences between the two populations as a major source of conflict, resulting in fear and stress. For example, staff explained that younger residents typically are more active, stay up later, and have more visitors compared with seniors. As one PHA leader said, "They may not be really doing anything wrong, but it makes the senior feel uncomfortable and therefore unsafe." This perspective is supported by other studies that have examined PHAs' administrative or managerial challenges with properties housing seniors and people with disabilities.⁴¹⁰

Staff conveyed that mixed-population buildings can complicate their efforts to provide necessary services and supportive environments for different resident groups and to support seniors in aging in place and can increase isolation among seniors. Both staff and residents provided examples of seniors moving out of mixed-population buildings due to conflicts with younger residents with disabilities. Some PHA staff and property managers indicated that even a slight increase in the share of younger disabled residents within mixed-population buildings can cause an exponential growth in management needs. Staff also stated that the diversity and range of needs in a mixed-population building present a substantial challenge to managing the building and effectively serving residents. Some residents echoed this concern:

"If a residential property is geared in one direction, the manager doesn't have to deal with a bunch of disrelated problems, but related problems mean that a solution will benefit more than one resident, regardless of where the complaint or problem comes from. Whereas in a mixed community, the manager has lord knows how many different issues going on at one time, and any one solution may be only a solution for one resident." —Resident, senior-only building

In keeping with these sentiments, many RSCs and property managers stated that they preferred working in or managing senior-only buildings. However, staff also identified the benefits of the social environment within mixed-population buildings, specifically, the opportunities for intergenerational learning and support. Other RSCs said that seniors should have a choice in their living environment by providing some senior-only property options within a PHA, but they did not favor the establishment of exclusively senior-only properties nor did they express a preference for working in or managing senior-only buildings.

Some PHA staff and leaders described financial benefits derived from operating senior-only properties. Specifically, they said that seniors often have a fixed, but predictable, income that enables timely rent payments and that senior-only properties tend to have lower unit management and turnover costs compared with all other property types because there is less wear and tear on the property.

In discussing designated housing plans in relation to market forces for affordable housing development, PHA staff highlighted the fact that private sector investors who partner in public housing redevelopment are making an investment of 15 or more years and look strongly at the market need. Staff emphasized that approval of a designated housing plan for units within a mixed-finance development, particularly for senior-only housing, can help PHAs secure investors and optimal pricing. However, they explained that investors are less comfortable with mixed-population housing because the population served, the property management strategies, and the asset management strategies are much less defined than they are for senior-only housing. Staff also described challenges faced in mixed-finance redevelopment due to differences between the HUD and Internal Revenue Service (which oversees the LIHTC program) definitions of seniors and differences between PHAs' and LIHTC investors' screening and eligibility criteria.

PHA staff, leadership, and community partners also said that the designated housing rule helped them to provide seniors with a choice in living environments and to preserve a housing market that attracts seniors. Some staff indicated that before the rule's development in 1994, some seniors in their jurisdiction would not apply for or move into mixed-population properties, and that the rule enabled them to provide those people with the opportunity to live in a senior-only environment. PHA staff said providing choices in living environments also helped with PHA finances and administration. Specifically, they noted that before the rule's development, they had many vacancies due to resident conflict; with the use of the rule, they can fill units more quickly and maintain a steady revenue stream. Several staff and leaders addressed this issue:

"But I believe that seniors have a right to say, 'I'm going to live in a retirement community. I have lived with young people my whole life, and I don't want to do that anymore. I want to live in a retirement community,' like a person with means can make that decision. So I think that the designated housing rule offers people choices about how they can successfully live. For some people, it makes absolutely no difference whatsoever as long as they're living in a safe, clean, well-run, connected place, it doesn't matter to them at all. But for other people, it matters a great deal." —PHA partner organization staff

"The other thing is that by being able to designate some buildings for seniors, we have really decreased a lot of those issues that we had with a lot of mixing of younger populations with older populations. And so, for seniors who don't mind being in a building with a mix of population[s], they can select a mixed building. And for those seniors who really want a senior environment, they can select a senior-only building. So that's kind of decreased a lot of those issues that we used to have with mixing of the buildings." —PHA leadership

Some staff said that by designating senior-only and mixed properties, the rule helped increase access to affordable housing for both populations because it enables seniors and people with disabilities to move through waiting lists more quickly than if they were on lists with all individuals seeking housing.

Research question 2: What strategies have PHAs employed to address public housing administration and management issues in the context of the designated housing rule?

PHA staff and residents mentioned several administrative strategies that can promote the managerial benefits and reduce the challenges of designated housing, and thereby improve residents' quality of life. The approaches include communicating with residents regarding building composition and admission preferences, encouraging resident organizing, supporting resident and staff training, strengthening public safety programs, developing working relationships with RSCs to meet service needs and to foster community engagement, and employing certain management practices regarding application screening and evictions.

Interviews and focus groups revealed several factors that can influence the social environment and highlighted many tools, in addition to designating housing, that PHAs can employ to reduce conflict. For example, residents expressed frustration with the ways housing administrators described and marketed properties, and they suggested that PHAs could improve their communication regarding building composition, preference structures, and changes in building designations (e.g., from senior-only to mixed). As one resident stated:

“You folks need to tell people when they move in here, what the priority of who lives in this building. So what is the percentage of the priority of people that are living here. So they don't come in here thinking this is just for senior citizens. They're misled and that's not proper.” —Resident, mixed-population building

PHA staff and community partners identified public safety as a platform for cultivating a positive social environment within buildings. Partner organizations providing social services stated that, first and foremost, residents must feel safe within their buildings in order for any other resident programming or activities to be effective. Staff and partners discussed the importance of building security and public housing public safety departments in creating a safe environment for residents.

Staff, property managers, RSCs, and tenants all highlighted how resident organizations (ROs) and residents themselves are key assets in helping to create and preserve a building's social environment. Tenants expressed that trust between ROs and property managers is critical to building a sense of community. A member of the PHA leadership addressed this point:

“Our resources and [service provider name] resources, can only get spread so thin.... We only have so much that we can take on. And so, we have to look at the assets of our residents to help us, in terms of helping to stretch those resources because our residents.... You know, we can't take on the role of an activities coordinator, but the residents can help to take on those roles. They are assets to our buildings, and so we use them as other resources.” —PHA leader

PHA staff, residents, and community partner organizations all identified staff and resident training as an important tool in fostering community and social cohesion within public housing properties. For example, the Housing Authority of the City of Milwaukee partners with SET Ministry staff who serve as RSCs and are trained in using a trauma-informed care model.⁴¹¹ PHA staff provided examples of their efforts to support training for resident organizations in active listening, communication, agenda-setting and meeting planning, and working with property managers.

Many property managers discussed the importance of ongoing training to help them do their jobs as well as the challenges they face in dealing with tenant issues when needed training is not available. Many noted that they spend a lot of time dealing with substance abuse and mental health issues, but they need training on how to handle these challenges. They described the wide array of tasks they juggle and the general knowledge they have acquired in many areas and shared their struggles with balancing individual and community needs. Many said that residents expect them to deal with all problems—which are often complex and deep—and to function as extended family. They also indicated that residents' level of dependence on management is somewhat unique to senior and disabled housing, in that other types of housing do not typically have the same demands. Although many residents said how helpful their property managers are, some also expressed the need for manager training, a perspective that managers and residents shared:

“And an old boss of mine used to call being a housing manager, the ultimate generalist. Because you do, you have to know a ton of stuff and a very broad range of things that, on paper, doesn't say anything about. You know? I mean, everybody at this table knows a lot more about extermination than they ever would have thought possible. They know a lot more about elder care, than they ever would have thought when they took this job. They know a lot about mental health. You know, because we become a lot of people's only link to the outside world. They come back to the office with any problem they have and say, 'you've got to help me with this.' OK, but we don't—you know—we're not counselors, we're not therapists, we're not physicians. But we do fill that role for a lot of people who have nowhere else to turn, and don't necessarily have the resources to know where to turn.” —PHA property manager

“Everyone's difficult, but some managers just don't have that skill to be able to get people to do the things they need to do to comply with their lease and be good tenants but not shame people or disrespect people.... And I actually think managers should get some sort of training in this whole area—about how you deal with

someone who's delusional. You can't talk somebody out of a delusion, but you can get them to do very practical things that are self-care. You can do that if you have a sense of how to deal with people.” — Resident, project-based voucher tenant

Property managers also expressed the importance of being involved in their PHA’s screening and leasing policies (e.g., development of a PHA’s Admissions and Continued Occupancy Policy). Some expressed concerns that certain residents, in their opinion, never should have been accepted into public housing. These managers said that living independently does not work for everyone, even if housing is accompanied by services. Property managers described how their buy-in and support in developing housing policies for their jurisdiction ultimately benefits residents by improving management practices. PHA staff also described the important role managers and RSCs play in preventing evictions by connecting residents to mental health resources and helping them to address issues such as hoarding.

Many PHA leaders noted that these strategies can be employed well only when resources are in place to support them. For example, PHA leaders described the challenges they face because of limited financial resources for RSCs and public safety functions; at least one noted that all of the authority’s RSCs had been laid off in recent years. Staff also expressed confusion and concern over HUD’s October 2013 Capital Fund Rule and the extent to which PHAs can use capital funds to enhance safety and security.⁴¹²

Consulting community stakeholders and cultivating resident leaders

Residents are key partners for housing authorities in creating and preserving a building’s social environment and in guiding and strengthening housing decision-making and programs. Several PHAs engage tenants in administrative processes and provide them with knowledge and skills to foster their leadership in their community and in the housing authority as a whole. And some housing authorities have been involved in jurisdiction-wide efforts to address the needs of specific population groups.

Milwaukee, WI
Public Housing Units: 3,871
Housing Choice Vouchers: 6,200*

The Housing Authority of the City of Milwaukee worked with SET Ministry to establish an annual Resident Organization Leadership Institute in 2014. Resident leaders from 13 different public housing developments participate in a peer learning collaborative where they gain skills, such as active listening, communication, agenda-setting, meeting planning, and working with property managers.[†] These opportunities foster the ability of residents to organize and express their concerns and desires to housing authority staff.

Denver, CO
Public Housing Units: 4,602
Housing Choice Vouchers: 6,784[‡]

Each of the Denver Housing Authority’s properties has a Local Resident Council composed of resident leaders.[§] The councils advocate for tenants; discuss and address conflicts, challenges, and other issues; communicate with housing authority staff, and plan community activities.^{||} The officers from each council are members of the authority-wide Resident Council Board, which meets every other month and provides three conferences a year to build tenants’ knowledge and skills.[#] These groups have benefited the housing authority in several ways, including improved conflict resolution and increased resident empowerment.^{**}

Fairfax County, VA
Public Housing Units: 1,065
Housing Choice Vouchers: 3,748^{††}

The Fairfax County Department of Housing and Community Development, which manages and maintains the county’s public housing and voucher programs, consults with community stakeholders to address issues facing seniors in the community.^{††} In partnership with the county Board of Supervisors’ Committee on Aging and the Area Agency on Aging, the county hosted 15 forums with approximately 750 local business

leaders and seniors and their families to provide insight and to share feedback on topics such as housing affordability, health, caregivers, technology, and diversity.⁵⁵ The information gathered was used to develop 31 initiatives to address seniors' housing needs through the Fairfax County 50+ Community Action Plan, released in September 2014.^l To guide implementation, each initiative has a community champion, a Commission on Aging advocate, and a county liaison.^{##} The department is working to identify how its efforts and its recent designation as a Moving to Work agency can best support the plan.^{***}

* U.S. Department of Housing and Urban Development, "Housing Authority Profiles," accessed May 28, 2015, <https://pic.hud.gov/pic/haprofiles/haprofilelist.asp>.

† SET Ministry, "SET Launches Resident Organization Leadership Institute," accessed March 11, 2015, <http://www.setinc.org/SET/News.htm>; Housing Authority of the City of Milwaukee, pers. comm., Feb. 26, 2014.

‡ U.S. Department of Housing and Urban Development, "Housing Authority Profiles."

§ Denver Housing Authority, "Resident Councils," accessed March 12, 2015, <http://www.denverhousing.org/residents/LocalResidentCouncil/Pages/default.aspx>; U.S. Department of Housing and Urban Development, "Denver Housing Authority Resident Councils Receive ROSS Grant," accessed March 12, 2015, <http://archives.hud.gov/local/co/goodstories/2009-07-10.cfm>.

|| Denver Housing Authority, "Resident Councils."

Denver Housing Authority, "Resident Councils.;" U.S. Department of Housing and Urban Development, "Denver Housing Authority Resident Councils Receive ROSS Grant."

** Denver Housing Authority, pers. comm., Feb. 19, 2014.

†† U.S. Department of Housing and Urban Development, "Housing Authority Profiles."

‡‡ Fairfax County, Virginia, "About the Department of Housing and Community Development," accessed May 28, 2015, <http://www.fairfaxcounty.gov/rha/abouthousing.htm>.

§§ Council of Large Public Housing Authorities, pers. comm., Jan. 8, 2015; Fairfax County Department of Housing and Community Development, pers. comm., April 17, 2015.

|||| Fairfax County, Virginia, "The Fairfax County 50+ Community Action Plan," accessed May 28, 2015, <http://www.fairfaxcounty.gov/dfs/olderadultservices/pdf/50-plus-community-action-plan.pdf>.

Ibid.

*** Fairfax County Department of Housing and Community Development, pers. comm., April 17, 2015.

Research question 3: What are PHA experiences with and perspectives on the process for acquiring HUD approval to designate housing?

The qualitative research in this HIA also sought to illuminate PHAs' experiences with and perspectives on the designated housing application process. As discussed earlier, PHAs receive approval to designate a project, or portion thereof, for five years, with an option to renew every two years. New designated housing plans are reviewed by HUD's Office of Public and Indian Housing (central office), with input from the respective local HUD Public Housing Field Office (field office). PHAs submit plan renewals directly to their local field office.⁴¹³ PHAs also can request amendments to their plans before the expiration of the five-year period by submitting a revised plan to HUD's central office.

PHA staff described a variety of experiences with developing and submitting designated housing plans. With regard to new plans, many staff described a lengthy and cumbersome process that required a lot of back-and-forth communication between the PHA and HUD. Several said they were frequently asked to provide

supplemental information after submitting their plans, particularly on fair housing issues. Some also expressed that the process to obtain the data required for the application process was burdensome and time-consuming. One PHA leader described the desire to streamline the process:

“We last went in for revision a couple years ago.... It is a detailed process, in terms of the information they ask. If there was any way to simplify that, or to streamline it a bit, it would be at least somewhat—as long as they're not missing anything important, I think it would be easier for housing authorities to apply. And then the review process sometimes does take a while. The last time, I think, we went in we were approved right away. But the time before that I remember there were a lot of questions back and forth. I think it took several months to actually work that out. So if there was any way to streamline the process, that would be helpful.” —PHA leader

By contrast, other PHA staff said that the process for a new designated housing plan went relatively smoothly. The vast majority of staff said that the process for renewing their designations was substantially easier than that for a new plan and did not present major challenges. Focus groups and interviews with PHA staff also revealed confusion among some PHAs regarding whether they are required to seek designation for mixed-population properties that were not operating as such before development of the rule. These instances highlight opportunities for HUD to provide additional guidance on the existing requirements.

Many PHA staff voiced opinions that the process for designating housing does not sufficiently consider local needs and context and becomes a “numbers game” focused on data such as waiting list numbers. Additionally, staff expressed confusion over how HUD determines the proportion of units it will allow PHAs to dedicate for seniors and for people with disabilities in mixed-population properties and expressed frustration that this differs across jurisdictions.

Some staff from smaller housing authorities said the application process is not set up to accommodate the unique needs and local context of small PHAs. Many described positive relationships with their local and regional HUD offices and expressed a desire for these local offices to be more involved with new designated housing plans because of their knowledge of the local context. This local knowledge was also cited as an important factor in the relative ease of the renewal process for designated housing.

Several PHA staff emphasized that many other affordable housing resources, in addition to their own portfolios, are available in their jurisdictions and that they work at the community level to identify and address the housing needs of seniors and people with disabilities. For example, some described their involvement in comprehensive and consolidated planning efforts, and expressed interest in being able to contextualize their designated housing plan applications within this broader framework. One PHA leader captured the thoughts shared by many on this issue:

“But revisiting what data they're asking us to provide and allowing for some rationale that a local housing authority can justify any of the data that is submitted, because it is addressing the local needs on a comprehensive level. Because the housing authority, we don't just designate our whole senior housing independently.... We sit on the Comp Plan planning team. So we know what else is out there. If they could just allow us to justify the request, and not just look at it based on numbers only.” —PHA leader

However, many PHA leaders and staff members described challenges establishing meaningful partnerships with affordable housing networks as part of their jurisdiction’s consolidated planning or comprehensive planning process, and said that their focus is on coordinating housing resources within their control. Many also said that they had not been engaged in their state’s *Olmstead* implementation efforts, and some stated that they had very little knowledge about *Olmstead* and its potential relevance to PHAs.

Staff at one PHA expressed frustration that changes they perceive to be minor relative to their entire housing portfolio require submission of a new plan, rather than an amendment. PHA staff also voiced concern that a

focus on numbers in the application process can hinder partnerships or drive decision-making at the PHA level that does not align with local needs and opportunities:

“We've been kind of quietly exploring another possibility for senior housing around a clinic. And that means that we have to take some of our current elderly units offline in order to create a new resource in an area that we're currently in. I'm not sure that we want to do that. So it's unfortunate that a number has to drive our decisions.” —PHA leader

Impact assessment findings

The potential actions HUD could take under the two scenarios—housing trends and partnership—as described earlier, could all have implications for the health and well-being of low-income seniors, younger people with disabilities, and other family types. Senior and disabled households would be most likely to incur direct effects and therefore were the focus of this impact assessment. This section outlines the potential health implications of changes in the two scenarios, mediated through six factors important to health: housing affordability, housing discrimination and choice, housing as a platform for supportive services, resident social environment, housing design and accessibility, and neighborhood characteristics. The connections between these factors and a range of potential health outcomes have been previously described in depth (see Current conditions, Page 35). The impact assessment considered direct effects of a rule change as well as impacts related to broader trends in the housing market that intersect with and affect the rule. These scenarios are not mutually exclusive, and HUD could implement actions from both concurrently.

The findings suggest that health impacts of actions taken under either scenario are likely to be small in magnitude, meaning a limited number of households would be affected. Recent data indicate that nationwide, 63,806 units are designated for senior or disabled families, housing only about 4 percent of the more than 1.6 million such families that receive housing assistance through either public housing or the Housing Choice Voucher program.⁴¹⁴

However, changes to the designated housing rule, as outlined in the two scenarios, could have substantial health implications for the families eligible for or living in designated housing, as well as repercussions for their communities. These households could face acute, chronic, or permanent effects in terms of functioning, their well-being, or their livelihood that could require costly medical interventions. Furthermore, some of the health effects identified in this assessment could apply to senior and disabled households beyond those living in designated units. These include health improvements resulting from improved interagency collaboration and resource alignment as projected under the partnership scenario.

Designated units represent a small fraction of public housing and updates to the designated housing rule likely will have no measurable impact on the growing need for affordable housing. National-level projections show that by 2020, between 14.4 and 16.3 million senior households, or 33.2 to 37.5 percent of all senior households, will be considered very low-income. By 2030, that range will be 17.8 to 22.5 million. This represents increases from 2010 of 36 to 54 percent by 2020 and 69 to 113 percent by 2030.⁴¹⁵ Due to data limitations, analogous projections for younger disabled households could not be completed; but, given recent trends in worst-case housing needs among disabled families, it is reasonable to expect similar growth.⁴¹⁶

At the same time, more public housing resources are being eliminated than are being created. The above projections promise to exacerbate a supply deficit that is already limiting housing access for populations in need. For example, if all of the approximately 470,000 studio and one-bedroom public housing units—the most commonly designated types—in the United States were designated for the existing 1.47 million senior households without children and the estimated 731,000 non-elderly disabled households with worst-case housing needs, PHAs would be able to house only about 21 percent of these families.⁴¹⁷ A strong body of evidence points to a need for more resources to meet affordable housing demand, and neither the designated housing rule in its current form nor any of the proposed actions in the two scenarios will have a substantial impact on affordable housing supply in the foreseeable future.

Countervailing forces make it unclear as to whether the overall number of PHAs seeking approval to designate housing would change. Designation in conjunction with mixed-finance deals, such as those using LIHTC, could drive an increase in the number of PHAs using the rule, but conversion of designated properties through the Rental Assistance Demonstration (RAD) program could result in a decrease. As previously discussed, only a small

share of PHAs use the rule. Recent data indicate that roughly 13 new plans and eight amendments are submitted annually.⁴¹⁸

An increase in PHAs using the designated housing rule could result from the trend of PHAs pursuing designation in conjunction with mixed-finance deals, particularly in states where a Qualified Allocation Plan (QAP) gives preference to housing for seniors or people with disabilities. An analysis of state QAPs from 2001 found that 41 states gave preference to affordable housing development or rehabilitation for senior households, 36 states gave preference to housing for the homeless, and 47 gave preference to “special needs” populations, such as people with mental or physical disabilities, drug or alcohol addictions, and HIV/AIDS.⁴¹⁹ More recent data suggest that QAPs are increasingly promoting coordination with PHAs to support the development and rehabilitation of housing coordinated with services, including by incentivizing commitments of project-based vouchers.⁴²⁰

Despite these incentives, however, stakeholders interviewed for this HIA consistently described a range of market forces that make the development of senior housing more probable and feasible than housing for people with disabilities or for mixed populations, as previously described. One staff member shared this perspective:

“From an investor standpoint, they love senior buildings. It's very easy to underwrite a senior building. The underwriting usually isn't as favorable for a family building. I think they love them because the perception is that seniors are going to take care of things. They're not going to be as hard on a unit as a family is going to be or as somebody who has—particularly mentally challenged [populations] might be. In terms of the management, it's going to be a much more stable management. I mean, stable tenancy. There's not going to be a lot of turnover.”

A decrease in the number of PHAs submitting designated housing plans, particularly in the longer term, could result from formerly designated properties being converted to long-term, project-based vouchers or rental assistance contracts under the RAD program, which does not require active plans. Through the initial awards in December 2012, 68 PHAs were selected to participate in RAD, allowing the conversion of roughly 12,000 units.⁴²¹ As of Dec. 31, 2013, HUD had awarded 158 PHAs the ability to convert more than 54,000 units of public housing under the RAD program; 1,287 of those units within 10 PHAs had completed conversion to long-term, project-based rental assistance contracts by that time.⁴²²

By May 31, 2014, 20 of 128 PHAs with active designated housing plans had received a RAD award, and one with an active plan had completed the conversion process.⁴²³ Although the designated properties may not be the portfolio items undergoing RAD conversions, a preliminary analysis suggests that some mixed-population and senior-only properties are included among those slated for conversion. Therefore, in the longer term, RAD conversions could lead to a substantial reduction in the number of new and renewal applications for designated housing or in the total number of designated units.

Moving forward, many in the housing industry as well as affordable housing advocates anticipate that a majority of public housing properties will be converted under RAD or a similar program. For example, as of December 2013, 382 housing authorities had applied to convert more than 176,000 units.⁴²⁴

Housing trends scenario

Under the housing trends scenario, HUD would use the rule-making process to address trends in affordable housing development or rehabilitation and public housing refinancing that interface with the designated housing rule. The majority of plans would still seek designation for senior-only properties. Specifically, HUD would do the following:

- Continue to consider nondesignated public housing and tenant- or project-based vouchers as comparable alternative resources for non-elderly people with disabilities and to approve plans for senior-only designations where nondesignated public housing and tenant- or project-based vouchers are the main

alternative for non-elderly people with disabilities. These alternative resources may not be, necessarily, allocated specifically for younger people with disabilities.

- Require PHAs to seek approval for a designated housing plan before completing any mixed-finance transaction (e.g., rehabilitation or new construction through LIHTC) involving designated units.
- Clarify that designated housing plans are no longer required after PHAs convert designated properties under the RAD program.
- Cease accepting demand from near-elderly families (head of household or spouse is 50 to 62 years old) as part of the justification for a senior-only designation; and, instead, require PHAs to demonstrate sufficient demand from elderly families (head of household or spouse is age 62 or older) only.
- Clarify that PHAs are prohibited from excluding the following:
 - Elderly families that include children or other non-elderly members from senior-only or mixed designated housing.
 - Disabled families that include children or other nondisabled members from disabled or mixed designated housing.

Given the trend in senior-only designation, younger disabled households could have reduced access to public housing units and, therefore, fewer choices in affordable housing. On average, approximately 3,237 public housing units were newly designated for seniors each year between 2011 and 2013, compared with an average of 32 units designated for residents with disabilities and 36 units for mixed populations. The housing trends scenario assumes that new designations would maintain the same pace and proportion over time, resulting in as many as 16,185 newly designated units for seniors over the next five years, compared with 160 units for disabled households and 180 units for mixed populations.

Over a five-year period, PHAs would designate nearly 50 times as many units for seniors than for people with disabilities, which could reduce access to and choices in affordable housing for as many as 16,000 disabled households. HUD prohibits displacement of residents due to designation, so these estimates reflect units that would no longer be available to meet future demand from disabled households. The estimates also assume that PHAs may not have a complete picture of affordable housing needs in their jurisdiction due to limited data on those who are homeless or residing in institutional settings. Reduced access to and choices in affordable housing among these households could exacerbate existing needs: More than 1.3 million households with younger people with disabilities already have worst-case housing needs; and, in this scenario, they would probably still not have access to affordable housing in an integrated community setting.

PHAs are required to describe in their applications the alternative resources available to nondesignated populations. According to the review of plans approved between July 1, 2013, and June 30, 2014, conducted as part of this HIA, PHAs generally catalog public housing properties and vouchers available to, but not exclusively for, people with disabilities. These data indicate that PHAs typically do not, as part of their plans, set aside a specific number of housing vouchers or other resources for people with disabilities.

In focus groups, younger designated housing residents with disabilities shared concerns about the implications of the current trend of seeking approval for senior-only designations for their future access to affordable housing. This perspective is well described by one tenant living in a mixed-population building, who observed:

“I wanted to say that if there are going to be too many senior-only buildings, then that would not be a good thing for people that are younger and disabled. Because we need the housing just as much as the older people do. You'd be amazed at how many people are on the streets, because they don't have a job.... And so they can't afford no \$700-a-month apartment anywhere. And a lot of them don't have roommates to live with and they're disabled. They need something like this. And if you're going to put up all these senior-only

buildings, then you're just going to leave those people out in the street still. So homelessness is going to be a worse problem than what it is now. If you decide to get more senior-only houses, homeless population will sky up." —Resident, mixed-population building

On the other hand, this scenario could increase the number of disabled or senior households with nondisabled or younger family members, including children, that have access to public housing by clarifying PHAs' ability to offer designated units to those families. Given that 96 percent of designated units are studio or one-bedroom, however, the current stock of designated housing may not be immediately aligned with needs of these households.⁴²⁵ The increase would come from housing authorities moving toward designation of larger units to serve this population.

In focus groups and interviews, PHA staff expressed confusion over their ability to designate units within family properties for senior or disabled households. Conversations with HUD staff revealed that PHAs already have the option to do so. According to HUD Resident Characteristics Report data, senior or disabled families with children comprise approximately 8 percent of all residents receiving HUD-assisted housing and 6 percent of residents within public housing.⁴²⁶

In line with current trends, more senior households could have access to public housing. State Qualified Allocation Plan preferences for senior housing, in combination with previously described market forces, could continue to promote senior-only designation as a part of mixed-finance deals. However, even with this potential increase, more than 1.47 million senior households—including those with worst-case housing needs and those residing in institutional settings that could live independently with appropriate services and supports in place—probably still would not have access to affordable housing in a community setting.

More younger disabled households or other family types could be exposed to discrimination while seeking rental housing in the private housing market and could have difficulty securing affordable housing. In cases where Housing Choice Vouchers are offered as the primary alternative housing resource in designated housing plans for senior-only properties, younger disabled households or other family types could encounter discrimination in their attempts to use the vouchers in the private market in the time allotted. Data from HUD's Office of Fair Housing and Equal Opportunity (FHEO) suggest that more than 10 times as many cases of housing discrimination occur in the rental housing market compared with the homeownership market.⁴²⁷ Similarly, data from a series of focus groups with 141 participants in the Chicago Housing Authority's voucher program indicate that participants commonly face discrimination in their searches for rental housing, particularly in the form of explicit refusal to accept vouchers and discrimination against families with children.⁴²⁸ Nearly 6,000 documented cases of housing discrimination in the rental market are filed with FHEO annually, which is probably an undercount of true discriminatory episodes. Given that 48 percent of these cases include an allegation of discrimination based on disability status, an estimated 2,845 younger disabled families experience discrimination based on a family member's disability status that could result in a fair housing case each year.

Rates of discrimination based on disability among Housing Choice Voucher participants are unknown, but these data suggest that discrimination is a substantial barrier to housing among disabled households and that, under the housing trend scenario, such households would continue to experience disproportionate rates of discrimination in seeking rental units in the private market. This conclusion is based on housing discrimination cases filed by FHEO, and does not reflect estimates of the occurrence of housing discrimination itself.

Additionally, younger disabled families may experience a co-occurrence of other forms of housing discrimination, such as discrimination based on race, familial status, or source of payment.

More younger disabled households could have difficulty finding rental properties with accessible housing infrastructure in the private market. In cases where PHAs offer Housing Choice Vouchers as an alternative housing resource in designated housing plans for senior-only properties, younger disabled families may

encounter challenges in acquiring rental properties with accessible infrastructure. For example, research suggests that 30 to 90 percent of rental units are not accessible to people with physical disabilities.⁴²⁹

Additionally, research suggests that people with disabilities may prioritize other features of the unit, such as location and proximity to transit, over accessibility features. For example, a HUD-commissioned survey of Housing Choice Voucher tenants with disabilities found that the most frequent reasons participants cited for choosing their current housing unit were location in a better neighborhood (39 percent), proximity to family and friends (34 percent), and proximity to retail (33 percent).⁴³⁰ Conversely, only 10 percent said they selected their unit because of its available accessibility features. However, 26 percent of respondents stated that they needed a larger bathroom to accommodate their disability, and 29 percent said that they needed bathroom modifications or improvements to the exterior of the building. In focus groups and interviews, PHA staff described the challenges many people with disabilities face in locating a unit that meets their needs and that is located in proximity to services and supports:

“With tenant-based [vouchers], what I have learned is that if you are person with a disability, and it depends what level of disability—but if you have a high level of disability and require assistance, it takes over 120 days for the individual, with assistance, to be able to find a unit that would meet the needs. And then depending on where they go, they might not have the services.... They're going to have to be looking again to find another location. It would be interesting to do an analysis of people who have disabilities who have moved out in areas that the services are not there. How many had to move? Or how many no longer have their vouchers? And for them, it's frustrating to see that they are so isolated [and in] obvious need of services.” —PHA staff member

Although current HUD data do not allow for the examination of utilization rates (i.e., successfully using the voucher to rent a unit) or the average time required to lease a unit among Housing Choice Voucher holders, 2001 data suggest that younger people with disabilities actually may be more successful in using vouchers compared with other household types. Seventy-four percent of younger people with disabilities with a voucher were able to use their vouchers, compared with 69 percent of all household types and 54 percent of senior disabled households.⁴³¹ However, even if current utilization rates were similar to those from 2001, as many as 1 in 4 younger disabled households—or roughly 125,000 of the 600,000 younger disabled families with vouchers—still would not be able to use the resources offered to them. Notably, this percentage may have changed significantly since 2001; therefore, these data should be interpreted with caution. These findings highlight the need for improved data to accurately capture the experience of younger disabled households using vouchers in the private market.

HUD has worked to ensure that accessible public housing units are made available to households that need them. PHAs are required to prioritize their accessible units for residents with disabilities, and PHAs are encouraged to exclude accessible units from designation so that they are available to individuals of any age who need the accessibility features.⁴³²

The number of senior households offered affordable housing options with accessible housing infrastructure probably would increase. Improved accessibility would be anticipated with mixed-finance development or rehabilitation of senior-only properties. For example, the designated housing plan review found that eight of the 13 new plans submitted were for designations in conjunction with new construction or redevelopment, and seven of those, comprising 1,355 units, were senior-only. Newly constructed properties are required to meet Section 504 and ADA accessibility requirements. Assuming these trends continue, as many as 6,775 senior households could have improved access to accessible housing infrastructure over a five-year period.

More senior households but fewer younger disabled households would be likely to have access to public housing coordinated with supportive services. The review of designated housing plans found that roughly half described collaborative relationships between housing authorities and health service agencies or other

organizations coordinating services. Supportive services offered to residents include nutrition and healthy living programs; help in applying for government assistance such as Medicare, Medicaid, and Social Security; and transportation to clinics or grocery stores. Conversely, fewer younger disabled households or other family types that are offered Housing Choice Vouchers as an alternative housing resource would have options to access supportive services coordinated with housing. However, PHA staff noted that project-based vouchers, where the PHA attaches a portion of its Housing Choice Vouchers to specific housing units, can help PHAs to provide housing coordinated with services for residents with disabilities. One staff member stated that project-based programs are “better than being in public housing, because there are specific contracts of services that will be provided...”

Senior and disabled households in public housing probably would maintain current levels of access to resources for organizing. Supports could include access to a functional resident council or resident service coordinator who can foster a positive social environment and facilitate dialogue with property managers and housing authority staff. However, households offered Housing Choice Vouchers as an alternative housing resource would be less likely to have access to these resources compared with households in public housing. In focus groups and interviews, PHA staff voiced concerns that all households could see the availability of these supports decline if funding for service coordination and public safety decrease.

The number of disabled households receiving Housing Choice Vouchers as an alternative that would be able to access housing in the neighborhood of their choice probably would not change substantially. For disabled households, vouchers offered in lieu of public housing as a result of the designation may provide an attractive option, because they promote community integration and give the recipient choices in housing location.⁴³³ However, the evidence on the relationship between housing vouchers, access to affordable housing in neighborhoods with health-promoting characteristics, and subsequent health outcomes is mixed, as previously described. For example, data from the Moving to Opportunity (MTO) study suggest that use of housing vouchers to move to low-poverty neighborhoods (with a poverty rate less than or equal to 10 percent) can increase perceptions of safety, reduce the likelihood of observing or being a victim of crime, and improve mental health outcomes for some population groups.⁴³⁴

Even when participants in this study used their vouchers to move to low-poverty neighborhoods, two-thirds moved again after their lease expired, and those who did so were more likely to then live in a higher-poverty neighborhood compared with those who did not.⁴³⁵ Furthermore, some studies have found health-protective effects of neighborhood racial and economic segregation mediated through increased social capital.⁴³⁶ These data show the complex nature of poverty and neighborhood segregation, which makes it particularly important that residents are consulted and given choice in these efforts.

Some voucher recipients also may find fewer housing options in neighborhoods with health-promoting characteristics due to housing discrimination and the limited numbers of units that meet their service or infrastructure needs, as previously described. Residents in existing designated properties would not see a change in neighborhood characteristics.

Some PHA staff have substantial concerns regarding potential changes to the rule as they relate to RAD conversions and the process for approval to designate mixed-finance properties. In focus groups and interviews, some housing authority staff cited concerns that requiring PHAs to seek approval to designate units prior to applying for tax credits could place them at a competitive disadvantage and noted that this could require them to develop designated housing plans in the hope of receiving tax credits that they might not get.

Some staff also raised concerns that if the designation status of units converted under RAD changes after conversion, it could present challenges with respect to fair housing litigation. In the event that most, if not all, designated properties are converted under RAD or a similar program over the long term, designated housing plans would no longer be required. Instead, converted properties would operate under RAD rules, which require

PHAs to replace the same number of units in properties that undergo a RAD-supported renovation, and RAD rules also guarantee tenants the right to return to the property if they are displaced by the renovation. Owners of senior-only designated properties converted to project-based rental assistance contracts could establish a preference for senior families under existing RAD regulations.⁴³⁷

The potential health impacts of this scenario are outlined below and would result from changes in the six factors important to health discussed earlier. Given the complex and countervailing forces previously described, including growing demand for affordable housing, trends in mixed-finance development and redevelopment, and RAD, it is possible that some health impacts may not change.

Positive health effects may include:

- Improved quality of life and reduced stress and anxiety through increased choice in affordable housing options for approximately 16,000 senior households that would benefit from newly designated units over a five-year period.
- Reduced constraints on resources for those same 16,000 senior households, allowing funds to be used for health promotion or maintenance of health conditions, such as diabetes, through regular medical care and treatment adherence.
- In designated properties developed or renovated with mixed financing, residents would benefit from an increase in accessibility features within their units and in the properties, and they also would benefit from potential improvements in neighborhood conditions. An accessible unit can help residents stay mobile, socially connected, and independent, and it can reduce the risk of unintentional injury or death. Living in a neighborhood that has health-promoting characteristics can affect a range of physical and mental health outcomes.

Negative health effects may include:

- Decreased choice in affordable housing options for younger disabled households or other family types that could result in diminished quality of life and increased stress and anxiety through exposure to discrimination in the housing market or loss of a housing subsidy due to an inability to utilize the resource in a timely manner.
- Decreased opportunities for stable, integrated housing with supportive services for younger disabled or frail senior households. Housing that is combined with services can increase housing stability, decrease behaviors such as substance abuse that are detrimental to health, improve medical care outcomes and treatment adherence, raise quality of life, and facilitate community integration and housing choice. These households could face eviction due to their inability to comply with a lease, may become homeless or need to move to assisted living facilities, and could experience poor mental and physical outcomes.
- Increased constraints on financial resources for younger disabled households or other family types that may have difficulty accessing affordable housing options, for example due to the longer time needed to successfully secure a lease in the private market. These constraints could increase material hardship, affecting mental health in the form of anxiety or depression and maintenance of health conditions, such as diabetes, through lack of regular medical care and treatment adherence.
- Increased risk of unintentional injuries or death among seniors and younger people with disabilities as a result of the reduced support for performing everyday tasks, particularly among tenant-based voucher recipients.

- Decreased cardiovascular or respiratory health among public housing residents or voucher recipients due to limited access to neighborhood characteristics promoting health (e.g., healthy food stores) and decreased physical and mental health due to exposure to crime or segregation in the residential environment.

Partnership scenario

Under the partnership scenario, HUD would use the rule-making process to encourage coordination of resources and collaboration among affordable housing and supportive service providers and those implementing state and local initiatives to address fair housing and homelessness. Specifically, HUD would do the following:

- Encourage PHAs to demonstrate in their designated housing plans the development and implementation of an affirmative outreach strategy that aligns with state and local efforts to provide housing coordinated with services and efforts to end homelessness. The strategy would target potential tenants, such as those making the transition out of institutions, who are least likely to apply for housing, to make them aware of available affordable housing opportunities. PHAs would need to demonstrate that the strategy:
 - Promotes collaboration with state Medicaid redesign efforts (e.g., alignment of affordable housing and health resources through connections with home- and community-based service waivers, MFP programs, Federally Qualified Health Centers, Community Mental Health Centers, area offices on aging, and independent living centers).
 - Supports the implementation of state *Olmstead* plans and responsiveness to related litigation, if applicable.
 - Supports state and local plans to end chronic homelessness.

As previously described, the 1999 Supreme Court decision *Olmstead v. L.C.* affirmed that the unjustified segregation of individuals with disabilities is prohibited by the ADA, initiating new efforts to transition individuals with disabilities from institutional settings (e.g., nursing homes, assisted living facilities, and psychiatric hospitals) to housing coordinated with supportive services in community-based settings.⁴³⁸ U.S. Department of Justice enforcement actions have led state and local governments to develop and implement plans for *Olmstead* compliance.⁴³⁹

Partnerships to address chronic homelessness

Asheville, NC
Public Housing Units: 1,525
Housing Choice Vouchers: 1,612*

In North Carolina, the Asheville-Buncombe Homeless Initiative Advisory Committee’s 10-Year Plan to End Homelessness prompted collaboration among the Housing Authority of the City of Asheville and local service providers to address the housing needs of

homeless individuals.[†] Those who have been homeless for more than 90 days and have a commitment for one year of case management support from a service provider in the community are given preference for the authority’s available public housing units and Housing Choice Vouchers.[‡] Initially, use of the preference was limited because agencies did not step forward to provide the case management. As availability of case management services expanded, however—particularly as the result of active fundraising by a local permanent supportive housing provider, Homeward Bound of Western North Carolina—use of the preference expanded significantly starting in 2010.[§]

Another factor that facilitated expansion of the program was the convening of regular meetings with Homeward Bound and other homeless service providers. Staff members from the agencies meet monthly to discuss specific cases and to solve problems. These regular interagency meetings, with appropriate releases of confidentiality from the clients, have been the primary mechanism for program expansion.^{||}

Since 2010, the authority has housed more than 250 chronically homeless people in public housing and through Housing Choice Voucher programs, with 85 percent of those individuals making successful transitions to permanent housing.[#] The program has contributed to a remarkable 75 percent reduction in chronic homelessness in the community.^{**} The authority attributes its success to partnerships with outside case management agencies and resources, particularly Homeward Bound, which receives funding support from the city of Asheville, Buncombe County, United Way, Smoky Mountain Center, and Mission Hospitals. The initiative has not required any additional funds from the authority's budget, though the authority does provide several in-kind resources to support the program, including staff meeting and coordination time and office space for Homeward Bound.

* Housing Authority of the City of Asheville, pers. comm., May 6, 2015; U.S. Department of Housing and Urban Development, "Housing Authority Profiles," accessed May 28, 2015, <https://pic.hud.gov/pic/haprofiles/haprofilelist.asp>.

† Corporation for Supportive Housing, "PHA Profile: Housing Authority of the City of Asheville, Preference for Homeless Households, Public Housing and Housing Choice Voucher Programs," accessed March 10, 2015, <http://www.csh.org/wp-content/uploads/2013/03/CSH-PHA-Profile-Asheville.pdf>.

‡ Housing Authority of the City of Asheville, pers. comm., May 6, 2015; The preference policy language is as follows: "Consistent with the City of Asheville's *10-Year Plan to End Homelessness*, HACA will give one preference point to families/individuals who are homeless as defined by HUD and have been homeless for the last 90 days or more, and who will be receiving regular on-site case management support from a local homeless services, social services or mental health agency for at least one year after moving into a HACA apartment. Status will be verified through the agency providing case management. Because HACA has a significant waiting list for one-bedroom and efficiency units, the first two preferences above for such units will be applied on an alternating basis. For each preference applicant who is housed in such a unit, at least one non-preference applicant will be housed *provided* that the non-preference applicant has an earlier date and time of application. Additionally, single individuals with a preference are encouraged to join with other applicants to qualify for a unit with more bedrooms." See also Corporation for Supportive Housing, "PHA Profile: Housing Authority of the City of Asheville."

§ Housing Authority of the City of Asheville, pers. comm., May 6, 2015.

|| Ibid.

Ibid.

** Corporation for Supportive Housing, "PHA Profile: Housing Authority of the City of Asheville."

***Olmstead* transitions will create additional demand for public housing units and vouchers as individuals move into community-based settings.** These households would include those currently living in nursing homes and long-term care facilities (e.g., state hospitals, assisted living facilities). As of 2013, 26 states had published *Olmstead* plans, 17 had developed alternative strategies (which address *Olmstead*-related issues but are not constituted in a formal response plan) to *Olmstead*, and one state (Wisconsin) had done both. Six states (Florida, Idaho, Kansas, New Mexico, South Dakota, and Tennessee) as well as the District of Columbia and the U.S. Virgin Islands had yet to develop a plan or an alternative strategy to address the *Olmstead* decision.⁴⁴⁰

Based on these data and the April 2014 HUD Designated Housing Status Report, nearly all PHAs with an active designated housing plan are located in states with a response to *Olmstead*.⁴⁴¹ Twenty of the PHAs are located in states with an *Olmstead* plan (with Wisconsin having an alternative strategy as well), and the other 14 PHAs are in states that have developed alternative strategies. Three states where PHAs have an active designated housing plan (Florida, Kansas, and Tennessee) have neither an *Olmstead* plan nor an alternative strategy in place, and the U.S. Virgin Islands, where one PHA with an active designation is located, does not have a current plan or

strategy. For the three states, the lack of a plan or strategy does not reflect a lack of lawsuits. As of May 2013, Florida, Tennessee, and Kansas have had 12, seven, and one *Olmstead*-related cases, respectively.⁴⁴²

The ADA *Olmstead* Web portal was used to identify potential housing-related *Olmstead* transitions in states that have a settlement agreement and a PHA with an active designated housing plan. A review of select state *Olmstead* settlement agreement fact sheets provides examples of the estimated number of individuals who could make the transition to new or existing housing:⁴⁴³

- **New York** plans to create community-based, scattered-site supported housing for individuals who have serious mental illness and who are unnecessarily segregated in adult homes. The minimum number of individuals to be assisted is 2,000, but it is estimated that there are a total of 4,000 eligible individuals who ultimately could be transitioned per the settlement agreement.⁴⁴⁴
- **North Carolina's** settlement agreement will provide community-based supportive housing for a minimum of 3,000 individuals currently in or expected to be diverted from institutional settings by July 2020.⁴⁴⁵
- **Delaware's** agreement addresses 3,000 individuals institutionalized in state or privately operated psychiatric hospitals and specifies plans to provide vouchers or subsidies for 650 of them.⁴⁴⁶
- **Texas's** interim agreement says the state will provide 635 home- and community-based waivers to help individuals currently housed in nursing facilities or those at risk of being institutionalized make the transition into community settings, but the agreement does not identify where these individuals will be housed.⁴⁴⁷
- **Georgia's** agreement proposes to transition 750 individuals with developmental disabilities to community-based settings and to provide supportive housing for up to 9,000 individuals with serious and persistent mental illness. In both cases, these individuals were living in or being served by state hospitals.⁴⁴⁸
- **Virginia** has agreed to provide more than 5,000 individuals living (or at risk of living) in institutionalized settings with waivers and other resources to help them access services provided in home- and community-based settings.⁴⁴⁹

Comparing these proposals to the number of disabled households currently in public housing or participating in the Housing Choice Voucher program can provide an indication of how future transitions may contribute to demand, especially if existing housing resources are utilized. Table 7 provides a comparison of the proposed settlement agreement transitions to the number of disabled families (including seniors and non-elderly people without children) currently residing in public housing or voucher units. These examples suggest a wide range in the potential increase in demand for these units. In some states, these transitions alone have the potential to increase the need for affordable housing by more than 50 percent above the demand currently met for disabled households through public housing and vouchers.

Table 7**Implementation of State Olmstead Efforts Could Significantly Increase Demand for Subsidized Housing**

Disabled households in federally subsidized housing compared with estimated transitions in select states

State	Disabled households of any age without children in public housing or participating in the Housing Choice Voucher program*	Estimated transitions [†]	Percentage increase in potential demand
Delaware	1,495	650 by 2016	43%
Georgia	16,798	9,750 by 2015	58%
North Carolina	24,120	3,000 by 2020	12%
New York	144,790	2,000 by 2018	1%
Texas	52,944	635 by 2015	1%
Virginia	16,994	5,000 by 2021	29%

Sources: Data from HUD Resident Characteristics Report and ADA *Olmstead* Web portal

* U.S. Department of Housing and Urban Development, Resident Characteristics Report data. <https://pic.hud.gov/pic/RCRPublic/rcrmain.asp>.

[†] U.S. Department of Justice, ADA *Olmstead* web portal, accessed Sept. 3, 2014, http://www.ada.gov/Olmstead/Olmstead_docs_list.htm#Settlements; New York ADA Settlement Fact Sheet, accessed Sept. 17, 2014, <http://www.ada.gov/Olmstead/documents/new-york-factsht-Olmstead.docx>; North Carolina ADA Agreement Fact Sheet, accessed Sept. 17, 2014, <http://www.ada.gov/Olmstead/documents/nc-factsheet-Olmstead.pdf>; Delaware ADA Settlement Fact Sheet, accessed Sept. 17, 2014, http://www.ada.gov/delaware_fact_sheet.htm; *Steward v. Perry* ADA Interim Settlement Fact Sheet, accessed Sept. 17, 2014, <http://www.ada.gov/Olmstead/documents/steward-fact-sheet.docx>; *United States v. Georgia*, Civil No. 1:10-CV-249-CAP, October 2010, Settlement Agreement fact sheet, accessed Sept. 17, 2014, http://www.ada.gov/Olmstead/documents/georgia_fact_sheet.pdf; Virginia ADA Settlement Fact Sheet, accessed Sept. 17, 2014, http://www.ada.gov/Olmstead/documents/virginia_fact_sheet.pdf.

Furthermore, the *Olmstead* decision goes beyond just those housed presently in institutional settings to include those who potentially could be institutionalized and aims to divert these individuals away from institutional settings. As with transitions, there is no central data set available to show the number who could be diverted, but the settlement agreements provide an indication of what states are anticipating. For example, Georgia plans to provide home- and community-based waivers to prevent the institutionalization of 400 individuals currently living in community settings and to provide direct support for 2,350 families who care for members with developmental disabilities in their homes.⁴⁵⁰ Virginia says it will provide support for home-based care for 1,000 individuals, which is equal to approximately 20 percent of the disabled families currently residing in HUD-assisted housing in the state.⁴⁵¹

It is important to note that public housing is not the only option, and sometimes it is not initially a stable option for individuals transitioning in accordance with *Olmstead* plans or settlement agreements. In focus groups, some PHA staff expressed concern that public housing often is considered the "housing of last resort" for individuals who have mental health disabilities or who have been homeless. Some staff members said they felt that society

expects them to take on the needs of these populations without additional resources for housing coordinated with services. Staff suggested that more resources and supports, such as sponsor-based units, for transitional housing are needed. One property manager described the challenges PHAs encounter in meeting the housing and service needs of people making the transition out of institutional settings:

“I do think that we have some residents that would do better in a group home, as opposed to their own apartments, independent living where they would have a case manager, or a social worker, or a house manager. And they need to start there with not having a whole apartment to clean, so they're hoarding and all that stuff, but smaller buildings with just smaller apartments that are run by mental health professionals that can meet their needs. So I think that we have some people that probably shouldn't be mixed in. I mean, we all have success stories with our younger disabled residents and that they're fine. But I think that if we could pull some of those tenants out, I think that they would do better and we would do better in a smaller setting with more services that are geared specifically to their needs.”

Partnerships to support state *Olmstead* efforts

Cook County, IL
Public Housing Units: 1,842
Housing Choice Vouchers: 12,912*

The 1999 Supreme Court decision *Olmstead v. L.C.* affirmed that the ADA prohibits unjustified segregation of individuals with disabilities.[†] Based on this decision, three lawsuits brought against the state of Illinois—*Williams v. Quinn*, *Ligas v. Hamos*, and *Colbert v. Quinn*—resulted in

consent decrees.[‡] The Housing Authority of Cook County is working to support state efforts to transition people with disabilities out of nursing and institutional settings under these orders. In 2013, the authority implemented a remedial preference policy in its public housing and Housing Choice Voucher programs for people with disabilities who are making the transition out of either state-run institutions that are subject to one of the three consent decrees or state-operated developmental centers that are closing.[§] The authority allocates 10 percent of its annual public housing and voucher turnover to these individuals as well as 10 percent of new project-based voucher units. When units become available, the authority works with the Statewide Referral Network—which is responsible for connecting people with disabilities who are already receiving supportive services to affordable housing—to identify individuals who are eligible under the consent decrees and who are interested in residing in the units.^{||} If the network does not identify a potential tenant within a set period of time, the unit is released to the general waiting list.

The authority also is the state fiscal agent for the *Colbert* consent decree, meaning that it is responsible for collecting necessary documentation on potential housing units, conducting site visits to ensure units meet HUD standards, and coordinating state subsidy payments to property owners.[#] After one year of what is known as a state “bridge subsidy,” the authority uses its preference policy to offer financial assistance through its public housing or voucher program to individuals moving out of institutional settings under the decree. Through these efforts, the authority estimates that it will assist 1,100 people with disabilities in transitioning out of nursing homes and into community-based settings by November 2015. Of those, approximately 21 percent will be age 18 to 49, 47 percent will be near-elderly (ages 50 to 61), and 32 percent will be seniors.^{**}

Public housing authorities may be well positioned to serve as key partners to state departments of health, human services, and family services in *Olmstead* compliance efforts. For example, managing bridge subsidies, which is similar to managing housing vouchers, is an area where PHAs can contribute expertise. These partnerships also can support PHAs in identifying and marketing to potential tenants in their jurisdictions who are least likely to apply for housing. For instance, as a first step in developing its preference policy, the Cook County authority matched its waiting list of more than 10,000 households

with the lists of individuals waiting to move out of institutional settings under the three consent decrees. This process found only three names on both lists, suggesting that individuals in these facilities were unaware of community-based housing opportunities that may be available to them through the housing authority and highlighting opportunities for marketing to individuals residing in nursing and institutional facilities.

* U.S. Department of Housing and Urban Development, "Housing Authority Profiles," accessed May 28, 2015, <https://pic.hud.gov/pic/haprofiles/haprofilelist.asp>.

† J. Pynoos, C. Nishita, C. Cicero, and R. Caraviello, "Aging in Place, Housing, and the Law," *The Elder Law Journal* 16, no. 1 (2008); 77–105; U.S. Department of Housing and Urban Development, "Statement of the Department of Housing and Urban Development on the Role of Housing in Accomplishing the Goals of *Olmstead*," (June 4, 2013) accessed May 28, 2015, <http://portal.hud.gov/hudportal/documents/huddoc?id=OlmsteadGuidnc060413.pdf>.

‡ Illinois Housing Development Authority, "Major Events in Long Term Care Reform, Rebalancing and Related Housing Needs," accessed Feb. 26, 2015, <http://hmprg.org/assets/root/PDFs/2013/04/IDHA-Consent-Decree-Summary.pdf>.

§ The preference policy is stated as follows: "HACC has established a preference for individuals with disabilities currently transitioning from institutional settings into community-based living. This preference will apply to up to 10% of the previous fiscal year's total LIPH unit turnover and will be given the highest priority over all other preferences in effect until the HACC reaches its targeted number of placements. To determine the targeted number, on April 1st of each year, the HACC will take the LIPH portfolio wide turnover from the previous fiscal year to calculate the 10% targeted number. HACC may place the targeted number of families qualifying for this preference before placing other applicants or HACC may alternate placement until the targeted number is placed, depending on the unit size/type that becomes available and the needs of the applicant. Once HACC has placed the targeted number of families qualifying for this preference, the remaining system of preferences will govern placement for any additional vacancies." See also Housing Authority of Cook County, "Public Housing Program Admissions and Continued Occupancy Policy," (June 3, 2013), accessed April 1, 2015, <http://thehacc.org/wp-content/uploads/2012/09/2013-Admissions-and-Continued-Occupancy-Plan.pdf>; Housing Task Force, "Reestablishing Connections: Illinois' 2014 Annual Comprehensive Housing Plan, Plan Effective January 1, 2014 – December 31, 2014," accessed May 29, 2015, <http://www.ihda.org/government/documents/2014AnnualComprehensiveHousingPlan.pdf>.

|| Illinois Housing Development Authority, "Statewide Referral Network: Information for Owners and Agents of Properties Supported by IHDA Resources," accessed Feb. 26, 2015, http://nursing-mfp.webhost.uic.edu/housing/SRN_Brochure_for_Landlords.pdf.

Dennis R. Jones, "*Colbert v. Quinn*, Case No. 07-C-4737 (N.D. ILL.), Annual Report to the Court," (Nov. 27, 2013), accessed Feb. 26, 2015, <http://www.equipforequality.org/wp-content/uploads/2014/03/Colbert-Monitor-Report-11-2013.pdf>.

** Housing Authority of Cook County, pers. comm., April 9, 2015.

HUD guidance and incentives could lead to growth in PHA models and practices for establishing partnerships with providers to sustainably deliver supportive services to residents. The review of designated housing plans conducted for this HIA found that approximately 50 percent of PHAs had collaborative relationships in place to provide or coordinate supportive services for residents of their designated properties. These collaborations include partnerships with local departments of mental health, senior services, and area agencies on aging; the Program of All-inclusive Care for the Elderly (PACE); and partnerships with local colleges or universities to provide on-site medical and wellness services. Overall, evidence suggests growing participation on the part of PHAs in coordinating supportive services and affordable housing. Support among PHAs for housing coupled with services increased from 61 percent reporting high or medium support in a 2010 survey to 69 percent in 2011.⁴⁵²

Similarly, increased coordination among PHAs and state or local *Olmstead* efforts or initiatives to mitigate chronic homelessness could facilitate improvements in addressing affordable housing needs in the community. In focus groups and interviews, most staff indicated that their PHA had not been involved in *Olmstead* planning efforts at the state or local levels, and this was confirmed by the plan review. None of the plans featured measures intended to align with state *Olmstead* planning, but HUD guidance and incentives under this scenario could aid in coordinating efforts to address affordable housing needs at the local, state, and regional levels.

Improved resource alignment could increase younger people with disabilities' and frail seniors' access to public housing units and overall choice in affordable housing. As previously noted, neither scenario would be likely to yield an overall change in affordable housing supply despite the anticipated increase in needs among all household types, particularly those that traditionally have not been captured in estimates of affordable housing needs (such as the homeless or those living in institutions). However, with improved coordination of housing and supportive services, younger disabled or frail senior residents living in institutions could have increased access to public housing units and, therefore, have more affordable housing choices. The increase would result from improved planning and coordination of resources to align with state and local *Olmstead* plans or efforts to end chronic homelessness and from collaboration with state or local human service agencies to fund housing coordinated with supportive services. However, given PHAs' resource limitations, it is possible that, under the partnership scenario, access to public housing for nonfrail, nondisabled senior households could decline.

More senior and disabled families living in designated housing could have access to supportive services. HUD guidance and incentives for collaboration between PHAs and health service agencies could increase the availability of housing opportunities coordinated with services. In particular, supportive services would have a positive impact for individuals with pre-existing conditions, especially mental health conditions, that could be exacerbated by inadequate access to housing. Services also could assist individuals with disabilities and frail seniors in successfully making the transition to community-based settings, with benefits for health.⁴⁵³

Expansion of access to housing coordinated with supportive services could contain long-term care costs over time. Expanding home- and community-based care options can serve as an effective administrative cost-control technique for reducing Medicaid long-term care expenditures.⁴⁵⁴ As previously described, the projected cost savings could be substantial.

An analysis of nationally representative data on the health status of low-income younger adults with disabilities, as a rough approximation of the population that could transition under *Olmstead*, revealed that compared with other adults this group is at greater risk of poor mental health and a number of physical problems, such as obesity, asthma, and stroke.⁴⁵⁵ These data suggest that, if these units are used as a community-based setting for purposes of *Olmstead* compliance, the adults with disabilities who could be transitioned would have substantial health challenges, potentially increasing the number of public housing residents with serious health needs. Given evidence that housing coordinated with services can be effective in improving health and reducing health care costs among particularly vulnerable and unhealthy populations, the partnership scenario may have the potential to confer substantial health benefits and cost savings in the coming years.

Potential cost savings may be found in preventing or mitigating some of the most expensive conditions that are common among low-income, younger individuals with disabilities. For example, annually per affected beneficiary, Medicare spends about \$2,000 in direct medical costs on asthma, \$7,000 on stroke, and \$3,000 to treat depression.⁴⁵⁶ Care for beneficiaries with multiple conditions can be particularly costly. For instance, individuals who have chronic obstructive pulmonary disease and suffer a stroke, two common outcomes among low-income people with disabilities, cost nearly \$50,000 per year to care for, and those with stroke and asthma cost nearly \$47,000 annually, according to Centers for Medicare & Medicaid Services estimates.⁴⁵⁷

The potential health effects under this scenario are outlined below and would result from changes in the six factors important to health discussed earlier. Given the complex and countervailing forces previously described, it also is possible that some health impacts may not change.

Positive health effects may include:

- Increased choice in affordable housing options for frail seniors or younger people with disabilities, which could improve quality of life and social and emotional health.
- Reduced constraints on resources for frail senior or disabled households in subsidized housing, freeing funds to be used for health promotion or maintenance of health conditions, such as diabetes or mental health, through regular medical care and treatment adherence.
- In designated properties coordinated with supportive services, residents with disabilities who have limitations in performing everyday tasks could see improved socialization and integration into community settings and prevention or treatment of chronic conditions, which could increase quality of life, reduce risk of unintentional injury or death, and possibly increase life expectancy.
- In designated properties developed or renovated with mixed financing, residents could benefit from an increase in accessibility features within their units and in the properties, and potential improvements in neighborhood conditions. An accessible residential unit can help residents stay mobile, socially connected, and independent and can reduce the risk of unintentional injury or death. Living in a neighborhood that has health-promoting characteristics can affect a range of physical and mental health outcomes.
- Among non-elderly disabled households and frail or disabled senior families, potential implications include:
 - Enhanced access to public housing units. A strong body of evidence indicates that access to affordable housing has impacts on a range of mental, emotional, and physical health outcomes.
 - A decrease in the number of households exposed to discrimination in the private housing market. Reducing experiences of discrimination could have positive impacts on physical and mental health and well-being as a result of decreased material hardship and increased access to resources and opportunities such as education, employment, recreational facilities, and medical care.
 - More options for accessing supportive services coordinated with housing and supports for resident organizing. Research suggests that supportive services can positively influence factors associated with long-term health outcomes, such as housing stability, and short-term health issues such as management of chronic conditions. Strong social support networks and social participation can improve residents' functional skills and quality of life.

Negative health effects may include:

- Decreased choice in affordable housing options for senior households whose head or spouse does not have a disability or other family types that could diminish quality of life and increase stress and anxiety through exposure to housing discrimination or the loss of a housing subsidy due to an inability to use it in the allotted time.
- Increased constraints on resources for senior households whose head or spouse does not have a disability or other family types that may be forced to rent at less affordable rates in the private market. These constraints could increase material hardship, affecting maintenance of health conditions, such as diabetes, through lack of regular medical care and treatment adherence.
- Among senior households whose head or spouse does not have a disability, potential implications include:
 - A decrease in the number of households with options for accessible housing infrastructure.

- Fewer households with access to supportive services coordinated with housing.
- Decreased access to supports for resident organizing.

Recommendations and conclusions

This HIA yielded the following 10 recommended actions HUD could take to optimize the health effects of its rule-making. Although designated units make up less than 6 percent of public housing nationwide, these recommendations could be used more broadly to support the health of more than 1.6 million senior and disabled families that PHAs assist through the public housing and voucher programs. Designated housing rule-making offers substantial opportunities for HUD to engage in interagency collaborations at the federal level and to support PHAs in offering people with disabilities choices in integrated community living; expanding partnerships that bring together housing and supportive services; and creating environments for seniors and people with disabilities to age in place. Achieving these objectives would help HUD meet its strategic goal of providing housing as a platform for improving quality of life and would support state and local governments' efforts to contain public service and medical care costs.

Final decisions on changes to the designated housing rule should consider potential health risks and benefits and the related cost implications identified in this analysis. Both HUD and PHAs face fiscal and administrative constraints and, therefore, HUD should consider the feasibility and potential impact of resource reallocation necessary to implement any of these recommendations. Successful implementation of these recommendations probably would require additional financial and staffing resources for HUD and other federal agencies.

Many of these recommendations speak to opportunities to support the health of senior and disabled households beyond those living in designated units and so may be optimally addressed as a part of regulation or guidance on broader PHA planning efforts, such as Consolidated Plans, Annual Action Plans, or Analyses of Impediments to Fair Housing Choice. Additional research and stakeholder engagement would help to refine these recommended actions and to determine the optimal mechanism for their implementation.

Expand efforts to use housing as a platform for supportive services. Housing coordinated with supportive services can benefit health and help state and local governments contain public service and medical care costs. HUD's strategic plan recognizes efforts to increase safety and to prevent crime, such as improvements to the physical environment and coordination with law enforcement agencies, as important elements in enabling housing to serve as a platform for services. For many seniors and younger people with disabilities living in designated housing, supportive services are important in facilitating their mental and physical health and ability to meet lease requirements and maintain housing. HUD requires PHAs to describe in their designated housing plans the supportive services they intend to provide or coordinate for residents. In updating the application requirements, HUD could do the following:

- Provide guidance and incentives for PHAs to establish partnerships with state Medicaid programs and cost-containment efforts that can support the provision of housing coordinated with supportive services, including medical services, assistance with daily tasks, and social services, such as food and nutrition programs.⁴⁵⁸ Such initiatives could include formal agreements with programs, such as Home and Community-Based Service waivers or the MFP program and co-location of designated housing properties and FQHCs or Community Mental Health Centers. HUD could build upon partnership models established by several PHAs to support the provision of housing coordinated with services, such as the Housing Authority of the City of Milwaukee's collaboration with an area FQHC at one of its senior-only public housing properties and the Cambridge Housing Authority's partnership with PACE. These partnerships could yield cost savings in preventing or mitigating some of the most expensive conditions, including asthma, stroke, and depression, common among low-income seniors and younger individuals with disabilities. For a list of select partnership resources for PHAs, see Appendix D.
- Expand the scope of the HUD/HHS Housing Capacity Building Initiative for Community Living or form an additional advisory committee to regularly convene stakeholders to discuss alignment of housing, supportive services, and public safety systems for residents in HUD-assisted properties. These stakeholders

could include HUD, HHS, the Department of Justice, PHAs and others in the affordable housing industry, state and local officials in human services and law enforcement, and advocates for seniors and people with disabilities. The advisory committee could be charged with developing and recommending:

- Strategies for aligning policies and funding streams to address affordable housing, supportive service, and safety needs for integrated community living.
- Opportunities for integrating behavioral and mental health with primary health care.
- Sustainable funding sources for resident service coordinators and public safety staff and programming.
- Partnership models and incentive structures for collaboration between PHAs and health and human service agencies implementing Medicaid programs or operating community health centers.
- Metrics for monitoring progress.

Promote fair housing initiatives to support choice in integrated community living. Despite federal fair housing laws and policies, people with disabilities frequently experience housing discrimination and have significant unmet housing needs. Additionally, if new designations continue to occur at the same pace and in similar proportion over time, reduced access and fewer choices in affordable housing options could affect nearly 16,000 disabled households. At the same time, the projected demand for publicly assisted units could increase among those making a transition under *Olmstead* plans and settlement agreements. For example, in some states, these transitions alone have the potential to increase the need for affordable housing by more than 50 percent relative to the demand currently met for disabled households through public housing and the Housing Choice Voucher program. Federal, state, and local efforts will be needed to allocate the housing supply necessary to meet the growing demand among all household types, particularly disabled households. HUD could support PHAs in developing and implementing fair housing initiatives that offer people with disabilities a choice in integrated community living, for example, HUD could do the following:

- Require PHAs submitting designated housing plans to certify that their plans are consistent with their efforts to implement fair housing initiatives and in compliance with the forthcoming Affirmatively Furthering Fair Housing rule (proposed rule, 78 FR 43709) and Section 504 of the Rehabilitation Act of 1973 (24 CFR Part 8, Part 9). This process could complement the existing review of plans by HUD's Office of Fair Housing and Equal Opportunity.
- Provide guidance and incentives to PHAs to consult with agencies responsible for implementing state or local *Olmstead* plans or settlement agreements. Similarly, HUD could encourage consistency with local plans to end chronic homelessness. For example, when determining affordable housing needs in their jurisdictions, PHAs could demonstrate an affirmative marketing strategy for people with disabilities by targeting potential tenants (e.g., those making the transition out of institutions), who are least likely to apply for housing; develop memorandums of understanding with area affordable housing providers (e.g., Section 811 and Section 202 providers); and use project-based vouchers (i.e., Housing Choice Vouchers dedicated to a specific housing project) to help create a supportive housing environment.⁴⁵⁹

One approach would be to promote partnerships between PHAs administering Housing Choice Vouchers and state agencies responsible for *Olmstead* implementation, modeled on efforts such as Non-Elderly Disabled (NED) Category 2 vouchers and the HUD-Veterans Affairs Supportive Housing (HUD-VASH) program. HUD could build upon models established by some PHAs, such as the Denver Housing Authority's memorandum of understanding with Colorado's Medicaid agency to coordinate supportive services for formerly institutionalized individuals who move to public housing. These efforts present an opportunity for substantial cost savings. For example, a 2005 survey by the Centers for Medicare & Medicaid Services estimated the public could see annual savings of \$2.6 billion by transitioning thousands of nursing home residents to home and community-based settings.⁴⁶⁰

- Promote more disabled-designated and mixed-designated units integrated within public housing properties. These units could be integrated within any properties in a PHA's portfolio, including family public housing properties. Successful implementation of this recommendation would require sustained access to supportive services and service coordination for these residents. Although PHAs are required to prioritize their accessible units in all property types for individuals requiring accessibility features, the designation of additional disabled- and mixed-population units could promote community integration for people with other types of disabilities who may not be in need of accessible units. HUD could encourage this by offering financial flexibility, expediting processes for designated housing plan approvals, or providing additional resources through its operating subsidies funding formula.
- Strengthen guidance and training for PHAs on alignment of the designated housing rule with federal and state fair housing policies and for PHA staff and residents related to resident conflict and discrimination. The department could build upon models such as the Housing Authority of the City of Milwaukee's partnership with SET Ministry to support resident training and community-building activities.

Improve data availability and accuracy. Affordable housing needs projections are underestimated because current data sources do not capture the homeless or people living in institutions, such as nursing homes or assisted living facilities. To address this, HUD could do the following:

- Strengthen collaboration with HHS to develop metrics and a data collection protocol to provide a more accurate picture of affordable housing needs among seniors and people with disabilities. Available data sets for such an analysis include the Comprehensive Housing Affordability Strategy (CHAS), special tabulations of the American Community Survey (including information on residents in group quarters), and the Homeless Management Information System. PHAs could be encouraged to provide inclusive metrics in their designated housing plans and improve local data collection and coordination, including through the Consolidated Plan, to identify and address affordable housing needs.
- Strengthen tracking of Housing Choice Voucher success rates among senior and younger disabled households. This could be accomplished through improved guidance to PHAs on capturing demographic data when reporting to HUD and by encouraging PHAs to consider the rates for seniors and people with disabilities when developing designated housing plans.
- Request that PHAs delineate, as part of their justification for the designation, HUD-subsidized and other affordable housing programs in their jurisdictions available to serve seniors or people with disabilities, such as Section 811, Section 202, and Continuum of Care permanent supportive housing providers, to more accurately capture local affordable housing supply when determining how to allocate housing. Currently, HUD considers only housing resources in the PHA's portfolio when examining the availability of alternative housing resources. This proposed delineation would allow for a more accurate assessment of affordable housing supply and availability of alternative housing resources. HUD also could improve coordination and data sharing across its public and multifamily housing programs to facilitate partnerships among PHAs and other providers to better meet local affordable housing needs.
- Examine housing needs among senior and disabled families that have children or that require an additional bedroom for a live-in aide or medical equipment. These data could be used to develop guidance for PHAs regarding designation of larger unit sizes.

Equip PHAs with data to inform strategies and actions to improve neighborhood resources. PHAs that use the designated housing rule typically are located in denser, more diverse, urban areas with higher poverty and crime rates compared with PHAs that do not use the rule. The HIA analysis also suggests differences in the characteristics of neighborhoods, such as fewer resources and opportunities for employment, surrounding predominantly mixed and disabled properties compared with senior-only properties within the same PHA.

Easily accessible data on neighborhood characteristics could help PHAs develop designated housing plans that connect residents to neighborhood resources and address service needs (e.g., transportation, medical clinics). To address this, HUD could provide guidance to PHAs on incorporating neighborhood metrics in their designated housing plans and other related plans. Metrics could include those established under existing initiatives, including HUD's Healthy Communities Transformation Initiative and associated Healthy Communities Index, Affirmatively Furthering Fair Housing indicators, and the eCon Planning suite.⁴⁶¹

Equip PHAs with tools to enhance accessibility in designated housing. Most of the housing stock in the United States does not have optimal accessibility for people with disabilities. Research suggests that PHAs have room to improve the accessibility of their public housing developments. Current data sources, however, do not provide a complete picture of the number of accessible units within public housing developments. Additionally, funding for operating and capital improvement costs has not kept pace with need, making it difficult for PHAs to fund necessary accessibility upgrades. To address this, HUD could do the following:

- Require that every newly constructed or substantially rehabilitated public housing property be built in compliance with Fair Housing Act accessibility requirements.⁴⁶² The department also could provide guidance to PHAs on achieving universal design standards during construction or rehabilitation and on incorporating aspects of designated housing into existing planning processes related to housing accessibility, such as the Annual Plan's Civil Rights certification and Section 504 transition planning. HUD also could support PHAs in providing adequate, accessible, and dedicated community space and meaningful programming in public housing properties with senior or disabled households.
- Provide regular and timely guidance concerning its accessibility and modifications requirements under the Fair Housing Act, Section 504, and the ADA, including on possible funding sources, partners, and best practice models.
- Provide guidance, best practice models, and incentives to PHAs to cost-effectively and systemically make accessibility and universal design modifications to their housing portfolios, so that in addition to meeting individual needs, they increase the long-term supply of accessible housing in their communities.
- Develop and implement a plan for improving the accuracy of data regarding accessibility of public housing units, including how it will use the data to inform policy and programmatic changes to prioritize resources and support accessibility enhancements within public housing. HUD could strengthen and provide ongoing communications to PHAs about its efforts to utilize accessibility data in policymaking, the importance of having a reasonable accommodations and modifications policy, and best practices and opportunities for informing residents of HUD policy.

Examine the implications of and best approaches for aligning the designation process with trends in public housing financing. PHAs leverage public and private funding sources through programs such as RAD and LIHTC to facilitate the rehabilitation or replacement of distressed public housing units. Although additional analysis is needed, preliminary research suggests that stakeholders have substantial concerns about certain changes to the rule that would occur under the Housing Trends scenario as they relate to RAD conversions and the timeline for applying for tax credits. To address this, HUD could do the following in the near term:

- Establish an internal working group comprising staff from several HUD programs and offices, including the Office of Public and Indian Housing, the Office of Multifamily Housing Programs, RAD, and the Office of Fair Housing and Equal Opportunity, to examine the intersection of the designated housing rule and broader housing trends. The working group could be charged with developing and implementing strategies to coordinate program goals, implementation requirements, accountability measures, eligibility and funding criteria for affordable housing providers, and administrative oversight across HUD offices and programs to support partnerships and resource alignment among PHAs and other HUD-assisted providers.

- Form an advisory committee to regularly convene stakeholders, including the U.S. Department of the Treasury, PHAs, state housing finance agencies, for profit and nonprofit affordable housing developers and providers, and advocates for seniors and people with disabilities, to discuss the intersection of designated housing and broader trends in public and affordable housing finance. The committee could be charged with developing and recommending:
 - Strategies for PHAs using RAD or LIHTC to engage with community partners, including disability and senior advocacy organizations, regarding fair housing concerns and tenants' rights.
 - Monitoring systems to track changes in affordable housing demand and supply for various populations in the context of housing finance trends and systems to provide annual updates that track worst-case housing needs or changes in resident composition for RAD-converted properties.
 - Opportunities and models in housing finance processes, such as establishing QAP criteria, that can encourage the housing market to align affordable housing needs and supply and to support the development or rehabilitation of properties with enhanced accessibility features.
 - Models for training PHA staff to blend the requirements of the public housing and LIHTC programs.

Pursue opportunities to align housing and health data sets. National-level data on the health status and supportive service needs of public housing residents are limited. Integration of housing and health data could facilitate HUD's efforts to consider health in affordable housing decision-making and could support PHAs and local supportive service providers in coordinating and targeting accessible housing and service resources in their communities. To address this, HUD could do the following:

- Work with HHS to develop and implement a plan to use aggregated data, collected by HUD-funded service coordinators, to inform the development of policies and programs that prioritize resources for support service and accessibility needs.
- Continue the collaboration between HUD and the National Center for Health Statistics to geocode National Health Interview Survey addresses. HUD also could pursue additional opportunities, such as coordinating with the Behavioral Risk Factor Surveillance System to capture data on public housing residence (e.g., never, former, current) and facilitating coordination among local-level housing and health data sets.

Support and reward PHAs that partner and consult with community stakeholders. The demand for affordable housing for seniors and people with disabilities will not be completely met no matter how a PHA configures its designation. The need is far greater than the supply. In the long run, forming productive coalitions and partnerships can help to create and preserve housing and service opportunities. To support this, HUD could provide guidance and incentives (e.g., providing expedited review or additional points on future grant applications) for PHAs to work with local, regional, and state disability membership and advocacy groups (such as independent living centers); senior membership and advocacy groups; service providers and organizations; low-income and tenant advocates; affordable housing development and financing organizations; and neighborhood and community groups in planning for designated housing and affordable housing development and rehabilitation.

Streamline the designated housing plan review and approval process. One of HUD's goals in making regulatory changes to the designated housing rule is to clarify and streamline the procedures through which PHAs designate housing for seniors and people with disabilities. In focus groups and interviews, many PHA staff described the process as lengthy and cumbersome, and some also said that obtaining required data was burdensome and time-consuming. To address this, HUD could do the following:

- Use a community-level need indicator to simplify the renewal process for PHAs that demonstrate that their jurisdictions have not faced statistically significant changes in demand from low-income seniors and people

with disabilities since their initial approvals.⁴⁶³ Data suggest that substantial demographic shifts may not occur within the two-year time frame for renewal. PHAs that do have significant changes would be required to complete the more comprehensive renewal application. This simplified process could be implemented in a test phase to assess gains in administrative efficiency.

- Develop and implement a simplified application form that provides clear examples of the data sources PHAs may use to respond to the questions HUD staff use in reviewing designated housing plans. HUD could probably undertake this step in a relatively short timeframe. For examples of indicators and data sources PHAs could use, see Appendix E.
- With stakeholder input, identify opportunities and develop a tool to guide PHAs in accessing standardized data for their designated housing plans based on CHAS, a PHA's Consolidated Plan, Resident Characteristics Report data, and existing neighborhood metric sources (e.g., HUD's Healthy Communities Transformation Initiative and associated Healthy Communities Index, Affirmatively Furthering Fair Housing indicators, and the eCon Planning suite).

Improve tracking of designated housing rule use. Quality assurance and control of HUD-designated housing data conducted for this HIA suggest that tracking and reporting could be improved, particularly with respect to renewal status. Additionally, many public housing projects with a mixed population of seniors and non-elderly people with disabilities are not currently captured in HUD's Designated Housing Status Report because they were managed and operated as mixed-population properties before the development of the designated housing rule. To address this, HUD could do the following in the near term:

- Increase efforts at the national office and local field offices to achieve accurate and regularly updated surveillance of designated housing rule use, including data on specific PHA properties with designated units.
- Develop and implement a plan for improving the accuracy of data regarding mixed-population properties to enable a comprehensive analysis and ongoing monitoring of their number and distribution. This could include encouraging PHAs to routinely use data fields already available to them in HUD's Inventory Management System/Office of Public and Indian Housing Information Center data system to report the number of designated units in their portfolios and clearly communicating why these data are important and how they will be used.

Appendix A: Glossary of acronyms and terms

Active designated housing plan: To designate housing for senior or disabled families, PHAs must develop a designated housing plan and receive approval from HUD. Once approved, a plan is considered “active” and allows the housing authority to designate a housing project, or portion thereof, for seniors, non-elderly people with disabilities, or both for five years, with an option to renew by submitting an updated plan every two years.

Americans with Disabilities Act of 1990 (ADA): A law based on the congressional determination that policies and programs that assemble services for individuals with disabilities in separate settings constitute a form of discrimination similar to the creation of “separate but equal” facilities based on race. The act directs public entities to provide programs and services in the “most integrated setting” possible that is appropriate to the individual’s needs.

Centers for Medicare & Medicaid Services (CMS): A federal agency within HHS that administers Medicare, Medicaid, and the Children's Health Insurance Program in partnership with states.

Designated housing: Public housing properties, or a portion of them, that are allocated for occupancy by senior families, disabled families, or a mixed population of senior and disabled families.

Disabled family: A family whose head (including co-head), spouse, or sole member is a person with a disability. The household may include two or more persons with disabilities living together, or one or more persons with disabilities living with one or more live-in aides. (See 24 CFR 5.403.)

Federally Qualified Health Centers (FQHC): Safety net health care providers that are intended to enhance the provision of primary care services in underserved urban and rural communities.

Health impact assessment (HIA): A systematic process that identifies the potential health effects of a proposed policy, project, or program to inform policymakers, those affected by the decision, and others with an interest in the outcome, and to offer practical options for maximizing health benefits and minimizing health risks.

Home and Community-Based Services (HCBS) waivers: A policy option that enables states to provide Medicaid-funded long-term care services in home- and community-based settings instead of institutional settings.

Housing Choice Voucher program: Federally funded and locally administered financial assistance that helps very low-income households afford housing within the private rental housing market.

Low-Income Housing Tax Credit (LIHTC) program: A federal tax credit that supports the development of new affordable housing units, as well as the rehabilitation and redevelopment of existing affordable housing. Through the program, tax credits are allocated to states based on their populations. Developers apply and compete for these credits and then sell them to investors to raise capital, which reduces the debt required to build or rehabilitate housing and makes it financially feasible to provide units at lower rents. Public housing authorities frequently partner in the development of LIHTC properties in their jurisdictions.

Money Follows the Person (MFP) program: A federal initiative to help states rebalance their Medicaid long-term care systems by shifting resources away from institutions, such as nursing homes and assisted living facilities, and toward providing services in home- and community-based settings.

Moving to Work (MTW): A federal demonstration program for housing authorities that gives them more flexibility in how they use federal funding and exemptions from many public housing and Housing Choice Voucher program rules.

National Prevention Council: This multi-agency federal panel, created through the Affordable Care Act and chaired by the surgeon general, is charged with improving the health, well-being, and resilience of all Americans.

Non-Elderly Disabled (NED) vouchers: Special-purpose vouchers awarded by HUD since 1997 to non-elderly individuals with disabilities.

Office of Fair Housing and Equal Opportunity (FHEO): The HUD office dedicated to developing, administering, enforcing, and increasing public understanding of federal fair housing policies and laws.

Office of Public and Indian Housing (PIH): The HUD office that works to ensure safe, decent, and affordable housing and to create opportunities for residents' self-sufficiency and economic independence.

Olmstead: The 1999 Supreme Court decision *Olmstead v. L.C.* affirmed that unjustified segregation of individuals with disabilities is prohibited by the ADA and that people with disabilities have the right to receive services that support everyday life in integrated, community-based housing. Since the decision, new federal funding streams and strategies have emerged to facilitate the transition of individuals with disabilities out of institutions and segregated settings, including the provision of community-based housing and services.

PHA: Public housing authority.

Program of All-Inclusive Care for the Elderly (PACE): A federal program that provides individuals age 55 or older with comprehensive, coordinated medical and personal care services delivered by an interdisciplinary team of health professionals at home rather than in a nursing home.

Public Housing: A HUD program; one of several federal programs that aim to improve access to housing and housing conditions for low-income families. The program is administered locally by about 3,300 PHAs that own and manage nearly 1.2 million public housing units across the United States, approximately 22 percent of all HUD-assisted housing.

Project-based vouchers: Housing Choice Vouchers that are attached to housing units in a specific development or service-rich area in order to make those units affordable to residents with extremely low incomes.

Project-based rental assistance: Contracts with private owners of multifamily rental housing that make the units affordable by paying the difference between what low-income households can afford and the approved rent.

Rental Assistance Demonstration (RAD) program: A federal program launched in 2013 to preserve public housing units at risk of becoming uninhabitable due to deferred maintenance. The program allows PHAs to convert public housing properties to long-term, project-based vouchers or project-based rental assistance contracts (see above) with for-profit or nonprofit property owners.

Remaining demand: For this HIA, remaining demand is defined as the share of affordable housing needs that PHAs face after accounting for other sources of supply within the county. (See Methods, Page 24.)

Resident service coordinators (RSCs): Typically members of a housing development's management team, based at the housing site, and funded as an operating expense, these staff assist residents in obtaining affordable services through community agencies.

Section 202: HUD's Section 202 Supportive Housing for the Elderly program makes interest-free capital advances to support the construction, rehabilitation, or acquisition of buildings that will offer supportive housing for very low-income senior families (households with incomes of 50 percent or less of the area median). The program also provides rental assistance dollars to ensure the projects remain affordable. Section 202 funds are available only to private, nonprofit organizations and consumer cooperatives; public agencies and tribes are not eligible.

Section 504: This section of the Rehabilitation Act of 1973 prohibits discrimination against individuals with disabilities in a number of contexts, including housing, but applies only to the federal government and federally financed agencies, such as PHAs. Section 504 requires federal agencies and organizations receiving federal assistance to deliver programs in the most integrated setting possible.

Section 811: HUD’s Section 811 Supportive Housing for People with Disabilities program provides funding to develop and subsidize housing and on-site supportive services for low-income people with disabilities. The program provides interest-free capital advances and operating subsidies to nonprofit affordable housing developers, as well as project rental assistance to state housing agencies.

Senior family: A family whose head (including co-head), spouse, or sole member is at least 62 years of age. The household may include two or more persons who are at least 62 years of age living together or one or more persons who are at least 62 years of age living with one or more live-in aides. (See 24 CFR 5.403. Based on feedback from members of the advisory committee for this HIA, the term “senior family” is used in lieu of “elderly family,” where possible.)

Supportive services: Medical and social services and other resources that help residents maintain housing or carry out daily tasks, such as assistance with transportation or care for chronic conditions.

U.S. Department of Health and Human Services (HHS): A federal department whose mission is to enhance and protect the health and well-being of all Americans.

U.S. Department of Housing and Urban Development (HUD): A federal department whose mission is to create strong, sustainable, inclusive communities and quality affordable homes for all.

Veteran’s Affairs Supportive Housing (HUD-VASH) vouchers: This program combines Housing Choice Voucher rental assistance and Veterans Affairs services, such as case management and clinical services, for homeless veterans.

Worst-case housing needs: Renter households with very low incomes (50 percent or less of the area median) who do not receive government housing assistance, and who either paid more than half their monthly incomes for rent, lived in severely substandard conditions, or both.

Appendix B: Intersecting affordable housing programs and financing mechanisms

This appendix describes several affordable housing programs and financing mechanisms that intersect with the designated housing rule.

Vouchers

The Housing Choice Voucher program, federally funded and locally administered, helps very low-income households afford housing within the private rental housing market.⁴⁶⁴ According to recent HUD data, the program subsidizes more than 2.3 million units, housing more than 5.3 million people.⁴⁶⁵ Unlike public housing, where assistance is tied to a specific publicly owned unit, the voucher program provides the assistance to the household, which then has flexibility to choose where to live.⁴⁶⁶ Typically, a family with a voucher pays rent equal to 30 percent of its household income. Using federal funds, PHAs pay the property owner the difference between that amount and the market rent, up to a set limit.

In general, to be eligible for a voucher, households must have incomes at or below 50 percent of the local area's median income (AMI), and HUD rules require that three-quarters of newly distributed vouchers be allocated to households with extremely low incomes—no higher than 30 percent of AMI. PHAs typically use waiting lists or housing lotteries to manage demand for vouchers. They also may establish preference systems to target specific groups, such as seniors, people with disabilities, veterans, and the homeless. PHAs can further choose to attach some of their vouchers to specific housing units, called “project-basing,” to make units in a specific development or service-rich area affordable to residents with extremely low incomes. Senior families represent 21 percent of households with a Housing Choice Voucher and non-elderly disabled families represent 28 percent of all households with a voucher.⁴⁶⁷

Rental Assistance Demonstration program and tax credits

PHAs leverage public and private funding sources through programs such as the Rental Assistance Demonstration (RAD) program and the Low-Income Housing Tax Credit (LIHTC) program to rehabilitate or replace distressed public housing units.

No federal funding has been allocated to increase the total stock of public housing units since the early 1990s. However, HUD has supported the rehabilitation and redevelopment of public housing units through programs such as HOPE VI and Choice Neighborhoods.⁴⁶⁸ Additionally, HUD has tried to slow the loss of public housing units through programs such as RAD. Launched in 2013, RAD is intended to preserve public housing units at risk of becoming uninhabitable due to deferred maintenance.⁴⁶⁹ Through a competitive process, PHAs with severely distressed properties may convert their current rental assistance funds to long-term, project-based vouchers or project-based rental assistance contracts⁴⁷⁰ and leverage private and other public financing (e.g., LIHTCs) to support rehabilitation and preservation.⁴⁷¹ Public housing residents displaced by a RAD-supported renovation are guaranteed the right to return when it is completed.⁴⁷² PHAs also must help residents relocate to different housing, if necessary, during the rehabilitation.⁴⁷³ Residents may move to other public housing units if they are available or receive a Housing Choice Voucher for the private rental market.⁴⁷⁴

PHAs also frequently partner in the development of LIHTC-funded properties in their jurisdictions to facilitate rehabilitation or replacement of public housing properties. Established in 1986, LIHTC has leveraged almost \$100 billion in private investment to finance more than 2.6 million units.⁴⁷⁵ LIHTC also is an important source of funding for rehabilitation and redevelopment of existing affordable housing projects. Tax credits are allocated to states and used by developers to offset the costs of construction, which makes it financially feasible to provide units at lower rents.

The U.S. Department of the Treasury allocates tax credits to each state based on its population.⁴⁷⁶ The program typically is administered by Housing Finance Agencies (HFAs), which are established by the states to meet their affordable housing needs.⁴⁷⁷ For-profit and nonprofit developers apply and compete for the credits through a

process outlined in each state's Qualified Allocation Plan (QAP) and then exchange the credits for equity by retaining them as financing for a project or, more typically, selling them to investors.⁴⁷⁸ This reduces the debt required to build or rehabilitate a housing development, enabling more affordable rents.⁴⁷⁹ In addition to federal requirements, which every LIHTC development must meet, each state's QAP establishes rules that determine which projects receive preference for the tax credits (e.g., by geography or resident characteristics).⁴⁸⁰

Other programs

Several HUD programs also focus on developing and providing housing and supportive services for low-income seniors and people with disabilities. HUD's Section 202 Supportive Housing for the Elderly program makes interest-free capital advances to support the construction, rehabilitation, or acquisition of buildings that will offer supportive housing for very low-income senior families.⁴⁸¹ The program also provides rental assistance dollars to ensure the projects remain affordable. Section 202 funds are available only to private, nonprofit organizations and consumer cooperatives; public agencies and tribes are not eligible. Any very low-income household with at least one senior (age 62 or older) may live in Section 202 housing.

Before the establishment of the Section 811 program in 1990, non-elderly people with disabilities were eligible to reside in Section 202 units. These properties are referred to as Section 202/8 properties. Since 1990, the Section 202 program has served only very low-income seniors; however, non-elderly people with disabilities continue to live in Section 202/8 units developed prior to 1990.⁴⁸²

HUD's Section 811 Supportive Housing for People with Disabilities program provides funding to develop and subsidize housing and on-site supportive services for low-income people with disabilities.⁴⁸³ The program provides interest-free capital advances and operating subsidies to nonprofit affordable housing developers as well as project rental assistance to state housing agencies. States also can use Section 811 funding to help support their efforts to comply with *Olmstead* implementation and the deinstitutionalization of people with disabilities.⁴⁸⁴ To receive Section 811 funding, state housing agencies must have a plan in place that demonstrates how supportive services will be made available to residents. In December 2010, Congress passed the Frank Melville Supportive Housing Investment Act, making several changes to the Section 811 program, including requiring that no more than 25 percent of the units in any new Section 811 property be set aside for people with disabilities to prevent segregation of these individuals.⁴⁸⁵

HUD also operates a number of programs that aim to provide housing and supportive services to specific target populations. The Shelter Plus Care program provides rental assistance to homeless individuals with disabilities, primarily those with serious mental illness, chronic alcohol or drug dependence, and HIV/AIDS.⁴⁸⁶ The Housing Opportunities for Persons with AIDS (HOPWA) program provides funding for housing assistance and supportive services for people living with HIV/AIDS.⁴⁸⁷ Additionally, funding from the HOME Investment Partnership (HOME) program can be used to meet unmet housing need within a given jurisdiction, such as by providing permanent housing for homeless individuals.⁴⁸⁸

In addition to these HUD-subsidized units, many communities offer affordable housing through the U.S. Department of Agriculture's Rural Development Section 515 program as well as through state and local efforts (e.g., housing trust funds, bond financing, or grants).⁴⁸⁹

Appendix C: Detailed description of assessment approach

Expedited systematic literature review

The HIA team searched the PubMed, Cochrane, Campbell, and Google Scholar databases for systematic reviews or meta-analyses of studies published between January 2003 and January 2014 that investigated associations among the designated housing rule, core factors, and health outcomes that addressed the assessment’s specific research questions. The team then summarized the data from the identified studies and searched for relevant gray literature—reports and publications outside of academic journals—related to each research question.

If no appropriate studies were found for a specific question, then the team conducted a systematic search of the PubMed and Google Scholar databases for extant literature (including nonsystematic research reviews and original articles) published between January 2003 and January 2014. For searches yielding a large number of results, the team screened a minimum of 100 abstracts to determine relevance for each research question. By default, the search engines used populated the results in order of relevance to the search terms. For research questions that yielded fewer than five articles, the HIA team performed a more in-depth review to find and collect additional data, including using a “snowball” method to pull relevant peer-reviewed studies and gray literature from citations and bibliographies.

The literature review for each research question was supplemented by searching for relevant gray literature in Google Scholar and subject-specific sources, such as HUD USER, the Centers for Disease Control and Prevention (CDC), and the AARP Public Policy Institute. The HIA team considered articles published in gray literature and peer-reviewed journals, as well as research on hypotheses directly relevant to the health pathway under investigation. The team excluded studies that were not published in English, those that were conducted among study populations outside of North America, and those that focused exclusively on populations other than seniors and people with disabilities.

In total, the HIA team reviewed more than 350 reports, peer-reviewed articles (including systematic reviews, meta-analyses, and reviews), conference papers, books, and other electronic resources such as fact sheets and websites. The team reviewed these sources, characterized the quality of the research reviewed, and extracted key findings related to the specific research questions.⁴⁹⁰

Analysis of PHA designated housing rule use

The HIA team used HUD’s Designated Housing Status Report data, Assisted Housing Properties database, and Resident Characteristics Report (RCR) data to examine the characteristics of PHAs with and without active designated housing plans.⁴⁹¹ The total number of housing authorities in the analysis—2,787—reflects the number of records in the HUD Assisted Housing Properties database. Other HUD resources show higher figures, including the Resident Characteristics Report (RCR) that includes records for approximately 3,100 authorities and the HUD public housing website, which has 3,300. The HIA team used the Assisted Housing Properties database, despite its fewer records, because it enables spatial analysis and contains more extensive PHA attributes, such as financial status. This analysis does not consider PHA characteristics not represented in this database.

The analysis joined HUD’s April 11, 2014, Designated Housing Status Report data and Assisted Housing Properties database via a common PHA code field. To examine PHAs with and without active designated housing plans, PHAs with a plan status of “expired” in the HUD Designated Housing Status Report were changed to “no active plan,” because quality assurance and quality control of these data-identified concerns related to plan renewal status. The HIA team then classified and grouped PHAs to compare them by size, plan status, plan type (e.g., senior, mixed, disabled), financial rating, and physical rating. To compare PHAs based on resident demographics and availability of other assisted housing units surrounding their jurisdiction, PHA data were combined with those from the HUD Resident Characteristics Report (RCR), based on their common PHA code

field. The HIA team calculated the mean number of Section 202/Section 811 and multifamily units from RCR data for counties that contain PHAs. The multifamily category includes Section 202/Section 811 as a subset as well as all voucher-funded assistance (including tenant and project-based).

Analysis of health factors and outcomes

The HIA team used data from the 2012 Behavioral Risk Factor Surveillance System (BRFSS) to examine health factors and outcomes among low-income seniors and people with disabilities as a proxy for those who could be eligible for or who might be residing in designated housing. The BRFSS survey is an ongoing, annual, random-digit-dial telephone health survey of adults ages 18 years or older. The survey is conducted in all 50 states in collaboration with the CDC and state departments of public health.

The HIA team restricted the analysis to counties with 25 or more respondents (84 percent of the 2,307 counties in the BRFSS dataset). Additionally, the HIA team restricted the analysis to counties with at least one PHA as identified in the HUD Assisted Housing Properties database. The final analysis included data on 475,687 respondents in 1,876 counties (81 percent of the 2,307 counties in the BRFSS dataset).

Using Statistical Analysis System (SAS), a data management and advanced analytics software, the HIA team approximated the distribution of 51 health and demographic variables and created county estimates for each variable, weighted by the number of respondents per county. These estimates were linked to data on where PHAs existed. To examine differences in health factors and outcomes among relevant subpopulations, including low-income seniors and people with disabilities, the HIA team classified respondents according to their age, income, and self-reported disability status.

The assessment did not use the stratified sampling procedures for BRFSS data outlined by the CDC because the weighting procedure does not enable stratifying by subpopulations. However, the HIA team determined that the BRFSS data set facilitated the best possible estimates for the nationwide distribution of health factors and outcomes in the relevant subpopulations. Therefore, estimates may not accurately reflect the true distribution of health factors and outcomes in these subpopulations at the county level.

Estimation of housing utilization and demand

The HIA team examined the extent to which PHAs with active designated housing plans are meeting the demand of key population groups, including seniors and non-elderly people with disabilities, compared with PHAs without active designated housing plans. To quantify this for each PHA, the HIA team estimated the “remaining demand met”—the extent to which a PHA meets remaining demand for affordable housing after accounting for available units from all other sources in the same county—for affordable housing at the county level.⁴⁹² For example, if a PHA is located in a county with 20 senior households in need of affordable housing and five senior affordable units supplied from other sources, that PHA faces a remaining demand of 15 units.

Data sources for analyzing the remaining demand met included the RCR, Comprehensive Housing Affordability Strategy (CHAS), and American Community Survey (ACS). Affordable housing demand was considered for several household types, including senior, non-elderly disabled, or families with children; by income level (extremely low income, very low income, and low income); and by housing tenure (owner, renter).⁴⁹³ To estimate current utilization of affordable housing, the HIA team used RCR data and calculated the total senior or disabled households without children, all non-elderly households with children, and all households headed by blacks. Because CHAS data include Hispanic households that are not eligible for housing (based on immigration status), utilization for these households could not be measured.

The remaining demand was calculated for the following four PHA classes:

1. With an active designated housing plan for any designation type
2. Without an active designated housing plan

3. (Subset of class 1) With an active plan for solely senior-only designated units
4. (Subset of class 1) With an active plan for mixed or disabled units and senior-only units

This analysis has a number of limitations. Estimates of demand among non-elderly disabled households include inputs that may be upwardly or downwardly biased. An upward bias may occur because (1) both ACS and CHAS tabulate households based on whether any member of the household has a disability, whereas the household head, spouse, or sole member must have a disability to qualify as a disabled household under the HUD definition; and (2) two-person disabled households headed by a person under age 62 could include single-parent households with a child with a disability or single-adult households caring for an elderly family member with a disability, neither of which would qualify as a disabled household under the HUD definition. By contrast, a downward bias is probable because available data sources and the ACS-derived discount factor applied to them do not account for those who are homeless or residing in institutional settings. In analyzing demand among families with children, small- and large-family households serve as proxies for households with children. In the case of large families (five or more), this analysis assumes these households have children; however, small-family households include two-person (neither elderly) and three-to-four-person households, so there is the potential for inclusion of households with no children.

Estimation of public housing properties that house predominantly seniors and people with disabilities

Because HUD data do not explicitly capture designation status at the public housing property level, the HIA team used the April 11, 2014, HUD Designated Housing Status Report data and Assisted Housing Properties database to estimate the number of public housing properties that currently house predominantly seniors or a mixed population of seniors and people with disabilities by rule status. Many PHAs that do not have active designated housing plans operate properties where a vast majority of residents are seniors or people with disabilities. This analysis was used to estimate the number of these properties that are not currently captured in HUD's records.

The HIA team linked the data sets by their PHA code to identify housing authorities that have approval to use the rule. The analysis defined properties as follows:

- **Senior-only** for properties with a minimum of 75 percent one-bedroom units and if they have residents who are predominantly (≥ 75 percent of residents) seniors or near-elderly (ages 51 or older).
- **Mixed or disabled-only** for properties with at least 75 percent one-bedroom units where fewer than 75 percent of residents are seniors or near-elderly (ages 51 or older) and where 80 percent or more of residents under the age of 62 are disabled.

With this approach to filtering bedroom size, smaller designated properties could be excluded from this analysis. An estimated 292 units may be unaccounted for, because four PHAs did not link to the properties database via the PHA code. Since the criteria of this analysis are set to identify whole properties as senior-only or mixed or disabled-only, this analysis also loses units that may be designated within a portion of a building. Estimates for properties operating as senior-only may be upwardly biased because near-elderly households are included in the definition.

Estimation of neighborhood conditions

Using the methods described above to define senior-only and mixed or disabled-only properties, the HIA team examined the neighborhood conditions of these properties in all studied PHAs. The purpose of this analysis was to (1) describe the neighborhood conditions of the average senior residents and disabled residents by rule status; and (2) to examine differences in neighborhood conditions within the same PHA for residents of senior-only properties compared with mixed or disabled properties and compared with other property types.

Neighborhoods were defined as census block groups or tracts that intersect a half-mile buffer around PHA properties. The HIA team calculated the following indicators at the PHA property level:⁴⁹⁴

1. Percentage nonwhite or Hispanic (Census 2010 SF1 Table P5, Block Group)
2. Percentage of population in poverty (ACS 2008-2012 Table B17001, Block Group)
3. Total jobs reachable within a 45-minute transit and walking commute as a proportion of total CBSA employment access (2013 EPA Smart Locator Database, Variable D5dr, Block Group)
4. Percentage of households below 30 percent area median income (CHAS 2006-2010 Table 7, Census Tract)
5. Labor market engagement index (HUD Affirmatively Furthering Fair Housing Draft Data Documentation, ACS 2008-2012 Tables B15003 and B23025, Block Group)
6. Pedestrian-oriented street intersections per square mile (2013 EPA Smart Locator Database, Variable D3bpo4, Block Group)
7. Racially or ethnically concentrated areas of poverty (RCAP, ECAP) (HUD Affirmatively Furthering Fair Housing Draft Data Documentation)⁴⁹⁵

These indicators were used to compare the neighborhood conditions of senior-only properties and of mixed or disabled-only properties among PHAs with and without active plans. The HIA team also examined within-PHA variance using the seven indicators. The within-PHA comparisons included:

- Senior households in senior-only properties with senior and non-elderly disabled households in mixed or disabled-only properties
- Senior households in senior-only properties with similar households in non-senior-only properties
- Senior and disabled households within mixed or disabled-only properties with similar households in non-mixed or disabled-only properties

For comparisons between PHAs with and without active plans, the team calculated PHA-level estimates using the weighted average of the property-level estimates within a PHA's housing portfolio, with weights given by each property's share of total PHA senior or disabled households. For categorical variables, PHA-level estimates represent the proportion of senior or disabled households within each category (e.g., if senior residents are split evenly across two properties, one of which is in a RCAP or ECAP, then 50 percent of senior residents are estimated to be living in RCAPs or ECAPs). The analysis is, therefore, limited to those PHAs that have both senior and disabled residents. This resulted in the removal of 222 PHAs, or 3.2 percent of all PHAs.

For the within-PHA comparisons:

- The analysis comparing neighborhoods for households of senior-only properties to households of mixed or disabled-only properties among PHAs with active designated housing plans (N=128) is necessarily limited to the 18 PHAs that have both senior-only properties and mixed or disabled-only properties. Among PHAs without active designated housing plans, the analysis is limited to 32 PHAs that have both senior-only properties and mixed or disabled-only properties.
- The analysis comparing neighborhoods for residents of senior-only properties and mixed or disabled-only properties to neighborhoods for residents in other properties within the same PHA is limited to the 417 PHAs that have both senior-only and non-senior-only properties and to the 78 PHAs that have both mixed or disabled-only and non-mixed/disabled properties.

- To compare the neighborhood experience for the average senior households in senior-only and non-senior-only properties, property-level data are weighted by the proportion of the population 62 and older in each property by property type.
- To compare the neighborhood experience for the average senior or disabled household in mixed/disabled versus non-mixed/disabled properties, the HIA team weighted data by the share of the PHA’s seniors or non-elderly disabled households living in the property.

Neighborhood indicators related to crime and access to health clinics could not be included in the public housing property-level analysis, because these data are available only at the county level. However, the HIA team used data from the Federal Bureau of Investigation’s Uniform Crime Reporting Program Data and the HHS Health Resources and Services Administration (HRSA) Data Warehouse to compare crime rates and the number of community health centers within counties where PHAs with and without active plans operate. Community health centers are defined as Federally Qualified Health Centers (FQHCs) and FQHC look-alike sites, which are “community-based health care providers that meet the requirements of the HRSA Health Center Program, but do not receive Health Center Program funding.”⁴⁹⁶ FQHC look-alike sites provide primary care services in underserved areas on a sliding fee scale based on patients’ ability to pay.

Qualitative research through a case study approach

Qualitative research with stakeholders, including PHA staff and residents, served as an important data source for this study, because the interviewees possess expertise and community data that can ground the HIA in the lives of affected populations.⁴⁹⁷ These data also supplement the systematic literature review and quantitative data to provide a full picture of people’s experiences with designated housing and the potential impact of changes to the designated housing rule on PHA staff, community partners, and residents.

In consultation with HUD’s Office of Public and Indian Housing and the AC, the researchers invited three PHAs—the Housing Authority of the City of Milwaukee, Denver Housing Authority, and Cambridge Housing Authority—to participate as case study sites for this HIA. The HIA team chose to focus on these three larger, metropolitan PHAs because they represent the types of PHAs most likely to use the designated housing rule, because the three sites are recognized by supportive housing experts and their PHA peers for their initiatives and strategies to provide supportive services to senior residents and residents with disabilities, and because their leadership indicated that they are likely to continue to use the rule in the foreseeable future and expressed interest in participating in the HIA. The qualitative data allowed for exploration of context, meaning, and depth of the public housing resident and staff experience, beyond what was available from existing secondary data used in this HIA. The Johns Hopkins Bloomberg School of Public Health Institutional Review Board approved the data-collection procedures for the case study research.

PHA administrators at the case study sites led recruitment for the interviews and focus groups. PHA administrators at each site identified PHA leadership, resident service coordinators, property managers, and key community partners (e.g., service or medical care providers) to participate in interviews. Administrators also led resident recruitment by notifying—through newsletters, flyers, and notifications at resident meetings—resident advisory boards and tenant councils within designated properties of the opportunity to participate in the study.

The HIA team conducted 16 focus groups and interviews with a total of 135 PHA staff members and community partners at the case study sites, including 25 PHA leaders and administrators, 45 property managers, 55 resident service coordinators, and 10 community service providers.⁴⁹⁸ When conducting focus groups or interviews, the HIA team did not ask service coordinators to specify if they were funded through HUD’s Elderly/Disabled or Multifamily Housing Service Coordinator Program or another source. In addition, the team conducted 11 focus groups with a total of 147 senior and disabled public housing residents. Among the resident focus group participants, 81 percent lived alone, the highest level of education obtained for approximately half (48 percent) of residents was a high school degree or less, and the average age was 68 years old (age range 37 to 90 years).

At the time of the focus groups, 62 percent of residents had lived in their public housing property for five years or more.

Oral informed consent was obtained from each participant prior to initiating the interview or focus group. Participants did not receive remuneration, although refreshments were provided for the resident focus groups. Two members of the Health Impact Project staff conducted the interviews and focus groups, which lasted approximately 60 to 90 minutes, and were recorded and later transcribed. Although the team used scripts as guides for the questions in focus groups and interviews, because the data collection was semi-structured, discussions also included unexpected, yet related topics and experiences.

The HIA team combined data from all three sites for analysis and did not examine differences among the sites. Data analysis consisted of HIA team members reading the transcripts to develop a codebook of key themes. HIA team members then coded transcripts and summarized key themes using ATLAS.ti, a qualitative data management and analysis software. Topic coding, which is a detailed review of the text that aims to identify categories of content related to the research questions, guided the analytic approach.⁴⁹⁹ Because these interviews and focus groups were in-depth and semi-structured, the qualitative data when presented are not enumerated according to the frequency of people who expressed each statement being shared. Rather, the frequency of each topic was described qualitatively to present common themes, as well as unexpected experiences. To ensure that the collected data were valid, this aspect of the research was guided by the concepts of credibility, confirmability, and transferability, which is similar to generalizability when discussing the external validity of quantitative data.⁵⁰⁰ Demographic data captured from residents via an anonymous participant data sheet were entered into an Excel database for analysis.

Key informant interviews and focus groups with public housing and health administrators

In addition to the interviews conducted with public housing administrators through the case study work, the HIA team conducted additional semi-structured focus groups and key informant interviews with PHA staff across the country to capture perspectives from PHAs of varying sizes and geographic locations, as well as PHAs without an active designated housing plan. The team also conducted a semi-structured focus group with health and Medicaid administrators in several states.

The team conducted two focus groups through interactive webinars (i.e., webinar focus groups) with staff from 12 PHAs that are members of the Council of Large Public Housing Authorities (CLPHA), because these larger, metropolitan PHAs more commonly administer the designated housing rule and are likely to continue to be the primary users of the rule in the foreseeable future. To supplement the perspectives of housing administrators from these larger PHAs, the team conducted semi-structured interviews by phone with a purposeful sample of administrators from 14 PHAs selected based on the following criteria: they represent a smaller or more rural PHA that could supplement the perspectives of larger PHAs provided through the focus groups; they represent a range of regions in the United States; they represent a range of PHAs that are currently using the designated housing rule, those that previously used the rule, and those that have never used the rule; or they have been recognized by HUD or key informant experts for their approach to resident engagement, or for providing supportive housing to seniors and disabled individuals. The team also conducted a webinar focus group with representatives from five Money Follows the Person (MFP) demonstration states regarding efforts to transition people with disabilities from institutional settings to integrated affordable housing coordinated with services in community-based settings. They were included because MFP represents a potential model for the alignment of affordable housing and supportive services for people with disabilities and seniors.

Two members of the Health Impact Project staff facilitated the webinar focus groups in collaboration with CLPHA staff (for the public housing authority focus groups) and the Centers for Medicare & Medicaid Services (for the MFP focus group). The focus groups lasted approximately 60 to 90 minutes and were recorded and later transcribed. Data analysis consisted of a review of transcripts by HIA team members to identify and summarize

key themes. Whenever possible, two HIA team members conducted the semi-structured interviews, which lasted approximately 60 to 90 minutes, and took notes during each interview. HIA team members de-identified and read the notes, and then conducted thematic data analysis to identify the key themes and constructs across the entire sample. Because data collection involved gathering information from these individuals in their professional capacity, the Johns Hopkins Bloomberg School of Public Health Institutional Review Board classified these data collection procedures as “Not Human Subjects Research.”

Appendix D: Select resources for public housing authorities

Federally Qualified Health Centers

<http://bphc.hrsa.gov/about/index.html>

This Health Resources and Services Administration site provides information on the Health Center Program and allows users to locate health centers near a specific address or by state or county. Federally Qualified Health Centers are “safety net” providers intended to enhance the provision of primary care services at clinics located in underserved urban and rural communities. (Accessed May 19, 2015.)

Home and Community-Based Services (HCBS) waivers by state

http://www.medicaid.gov/medicaid-chip-program-information/by-topics/waivers/waivers_faceted.html

This Centers for Medicare & Medicaid Services site enables users to search for Section 1915(c) HCBS waivers by state. HCBS waivers enable states to provide Medicaid-funded long-term care services in home- and community-based settings. (Accessed May 19, 2015.)

Money Follows the Person (MFP) program

<http://www.medicaid.gov/state-resource-center/medicaid-state-technical-assistance/money-follows-the-person-tech-assist/list-of-mfp-grantees.html>

This Centers for Medicare & Medicaid Services site lists the MFP grantees by state. The MFP program helps states rebalance their Medicaid long-term care systems by shifting resources away from institutions and toward providing services in home- and community-based settings. (Accessed May 19, 2015.)

Program of All-Inclusive Care for the Elderly (PACE)

<http://www.medicaid.gov/medicaid-chip-program-information/by-topics/long-term-services-and-supports/integrating-care/downloads/state-website-list.pdf>

This Centers for Medicare & Medicaid Services site lists the PACE program websites by state. PACE provides individuals age 55 or older with comprehensive, coordinated medical and personal care services delivered by an interdisciplinary team of health professionals at home rather than in a nursing home. (Accessed May 19, 2015.)

***Olmstead* Enforcement**

http://www.ada.gov/olmstead/olmstead_docs_list.htm#Settlements

This U.S. Department of Justice site contains *Olmstead*-related briefs, complaints, letters of findings, and settlement agreements by state. The 1999 Supreme Court decision *Olmstead v. L.C.* affirmed that unjustified segregation of individuals with disabilities is prohibited by the Americans with Disabilities Act and that people with disabilities have the right to receive services that support everyday life in integrated, community-based housing. (Accessed May 19, 2015.)

Appendix E: Example indicators and data sources for designated housing plans

This appendix contains examples of indicators and data sources that public housing authorities (PHAs) could use in preparing their designated housing plans. They are organized into three categories: (1) data available at the PHA level or already compiled by PHAs for other planning requirements; (2) data available through HUD or other nationally available sources; and (3) data available through other sources, such as state *Olmstead* plans or local community health needs assessments. The indicators and data sources are organized by the questions used by HUD staff when reviewing designated housing plans, as outlined in HUD’s designated housing plan processing guidebook for staff. (See Review of Designated Housing Plans: A HUD Processing Guidebook for Public Housing Headquarters and Field Staff, available at <http://portal.hud.gov/hudportal/documents/huddoc?id=pih-2005-265bhguid.pdf>). The indicators and data sources included here are not an exhaustive list, nor are they intended to be prescriptive. Rather, they are intended to provide examples of the types of information that could be used by PHAs to provide information on factors important to health as they prepare their designated housing plans, as well as to provide HUD with a more complete picture of housing supply and demand and local-level context. These indicators are in addition to specific metrics required by HUD, and PHAs should work with HUD to ensure that their plans contain all required information.

HUD review element and selected questions	PHA sources	HUD or other national level sources	Other sources
<p><i>Justification for designation</i></p> <p>Does the PHA establish that the designation is necessary to achieve the housing goals for its jurisdiction under the consolidated plan?</p> <p>Does the plan meet the housing needs of the low-income population of its jurisdiction within the PHA’s funding constraints?</p> <p>Does the plan include information from the consolidated plan or other reliable sources to support the proposed designation.</p>	<p>Consolidated plan:</p> <ul style="list-style-type: none"> • Needs assessment [NA-10] • Homeless needs assessment [NA-40] • Non-homeless special needs assessment [NA-45] • Consultation [PR-10] • Citizen participation [PR-15] • Geographic priorities [SP-10] • Priority needs [SP-25] <p>Action plan:</p> <ul style="list-style-type: none"> • Annual goals and objectives [AP-20] • Homeless and other special needs activities [AP-65] <p>Resident Advisory Board perspectives on designated</p>	<ul style="list-style-type: none"> • (Forthcoming) Disproportionate housing needs indicators (Affirmatively Furthering Fair Housing Draft Data Documentation) • Percentage of nonwhite or Hispanic (US Census, Census SF1 Table P5) • Percentage of population in poverty (American Community Survey, Table B17001) • Elderly or near-elderly households in poverty (American Community Survey, Table B17017) • Small area estimates: Prevalence of disability (American Community Survey, Table S1810) • Prevalence of health risks and outcomes (Behavioral Risk Factor Surveillance System City and County Data) 	<ul style="list-style-type: none"> • Estimates of homeless population (Point-in-time estimates available for state, county, or municipality) • Community/population description and prioritized description of all of the community health needs (Community Health Needs Assessment) • Proposed <i>Olmstead</i> transitions (applicable jurisdiction <i>Olmstead</i> plan or settlement) <p>Measures of demand and utilization employed in the designated housing rule HIA for the following:</p> <ul style="list-style-type: none"> • Elderly households, 2006-2010 Comprehensive Housing Affordability Strategy, Table 16 • Non-elderly disabled households, Comprehensive Housing Affordability Strategy, Table 6, and American Community Survey 2008 – 2010,

HUD review element and selected questions	PHA sources	HUD or other national level sources	Other sources
	<p>housing plan (e.g., a summary of comments or minutes from Resident Advisory Board discussion regarding the plan)</p> <p>Community partner perspectives on designated housing plan (e.g., letters of support or a summary of comments or minutes from meetings)</p>		<p>Tables B18107 and B11016</p> <ul style="list-style-type: none"> Community-level need indicator (e.g., comparison of change in elderly households using 2007–2009 and 2010–2012 American Community Survey, Table B17017) <p>Housing needs and recommendations information for local jurisdiction (from applicable master or comprehensive plan)</p>
<p><i>Project description</i></p> <p>Does the plan include the name of the project(s) and the number of units to be designated at each project (indicate percentage of units proposed for designation, total number of units in each building, and bedroom sizes)?</p> <p>Does the plan describe the types of tenants for which the project is to be designated?</p> <p>Does the plan describe any supportive services to be provided to tenants of the designated project (or portion thereof)?</p> <p>Does the plan describe how the design and related facilities of the project accommodate the special environmental</p>	<p>Consolidated plan:</p> <ul style="list-style-type: none"> Number of accessible units included in public and assisted housing [MA-25] Characteristics of residents [NA-35] Special needs facilities and services [MA-35] Section 504 needs assessment [NA-35] <p>Number of Uniform Federal Accessibility Standard (UFAS)-compliant units</p>	<p>HUD Resident Characteristics Report:</p> <ul style="list-style-type: none"> Distribution of family type (Elderly and non-elderly disabled households) Distribution of household members age Distribution of number of 0- and 1-bedroom units <p>HUD geospatial database:</p> <ul style="list-style-type: none"> Percentage of disabled households less than 62 years of age and percentage of households 62 and older Public housing property, total units, and percentage of 1-bedroom data <p>Prevalence of health risks and outcomes (Behavioral Risk Factor Surveillance System City and County Data)</p>	<ul style="list-style-type: none"> Health care service delivery sites/Federally Qualified Health Centers (Health Resources and Services Administration Data Warehouse) Community/population description and prioritized description of all of the community health needs (Community Health Needs Assessment)

HUD review element and selected questions	PHA sources	HUD or other national level sources	Other sources
needs of the occupants (e.g., call cords, elevators, security system)?			
<p><i>Need/demand for housing</i></p> <p>Number and percentage of elderly and non-elderly disabled on public housing waiting list?</p> <p>Number and percentage of elderly and non-elderly disabled on Housing Choice Voucher (HCV) waiting list?</p> <p>Number and percentage of elderly and non-elderly disabled on other waiting list (e.g. HOPE VI)?</p> <p>Total number of applicants on the public housing waiting list?</p> <p>Total number of applicants on the HCV waiting list?</p> <p>Number of elderly applicants on the waiting list who have requested units with accessible features (indicate bedroom size requested)?</p> <p>Number of non-elderly disabled applicants on the waiting list who have requested units with accessible features</p>	<p>Consolidated plan:</p> <ul style="list-style-type: none"> • Needs assessment [NA-10] • Number and types of families (elderly, non-elderly, disabled, families with children, etc.) on public housing waiting list [NA-35] • Number of families on public housing waiting list [MA-25] • Number and types of families on Housing Choice Voucher waiting list [NA-35] • Section 504 needs assessment [NA-35] • Citizen participation [PR-15] • Consultation [PR-10] <p>Resident Advisory Board perspectives on designated housing plan (e.g., a summary of comments or minutes from Resident Advisory Board discussion regarding the plan)</p> <p>Community partner perspectives on designated housing plan (e.g., letters of support or a summary of comments or minutes from meetings)</p>	<ul style="list-style-type: none"> • (Forthcoming) Disproportionate housing needs (Affirmatively Furthering Fair Housing Draft Data Documentation) • Percentage of nonwhite or Hispanic (US Census, Census SF1 Table P5) • Percentage of population in poverty (American Community Survey, Table B17001) • Elderly or near-elderly households in poverty (American Community Survey, Table B17017) • Small area estimates: Prevalence of disability (American Community Survey, Table S1810) 	<p>Proposed <i>Olmstead</i> transitions (applicable jurisdiction <i>Olmstead</i> plan or settlement)</p> <p>Measures of demand and utilization employed in the designated housing rule HIA for the following:</p> <ul style="list-style-type: none"> • Elderly households, 2006-2010 Comprehensive Housing Affordability Strategy, Table 16 • Non-elderly disabled households, Comprehensive Housing Affordability Strategy, Table 6, and American Community Survey 2008 – 2010, Tables B18107 and B11016 • Community-level need indicator (e.g., comparison of change in elderly households using 2007–2009 and 2010–2012 American Community Survey, Table B17017)

HUD review element and selected questions	PHA sources	HUD or other national level sources	Other sources
<p>(indicate bedroom size requested)?</p> <p>Information in PHA's annual plan?</p> <p>Information in city's consolidated plan?</p>			
<p><i>Alternative resources</i></p> <p>Does the plan include a description of any plans to provide additional resources or housing assistance to families that may have been housed if occupancy in the project were not restricted?</p>	<p>Consolidated plan:</p> <ul style="list-style-type: none"> • Citizen participation [PR-15] • Consultation [PR-10] <p>Description and number of HUD-subsidized and other affordable housing programs in the jurisdictions that are available to serve seniors or people with disabilities, such as Section 811, Section 202, and Continuum of Care permanent supportive housing providers</p> <p>Community partner perspectives (e.g., letters of support or description of alternative resources available through community partners)</p>	---	<ul style="list-style-type: none"> • Identified impediments to fair housing choice (Analysis of Impediments to Fair Housing Choice for state, county, or municipal service area) • Consent decree or proposed/planned services as part of <i>Olmstead</i> plan (applicable jurisdiction <i>Olmstead</i> plan or settlement) • Description of the existing facilities and resources (Community Health Needs Assessment) • Health improvement strategies and action plans (applicable community health improvement plan)
<p><i>Comparable services, amenities, and community facilities between designated and nondesignated properties</i></p> <p>Are there comparable services, amenities, and community facilities between designated and nondesignated properties? If yes, provide</p>	<p>Consolidated plan:</p> <ul style="list-style-type: none"> • Special needs facilities and services [MA-35] <p>Action plan:</p> <ul style="list-style-type: none"> • Homeless and other special Needs activities [AP-65] 	<p>Neighborhood Indicators that could be used to compare designated and nondesignated properties:</p> <ul style="list-style-type: none"> • Percentage of nonwhite or Hispanic (US Census SF1 Table P5, Block Group) • Percentage of population in poverty (ACS 3-year estimates Table B17001, Block Group) • Percentage of very low and percentage of extremely low-income (Comprehensive 	<ul style="list-style-type: none"> • Description of the existing facilities and resources (Community Health Needs Assessment)

HUD review element and selected questions	PHA sources	HUD or other national level sources	Other sources
<p>a brief description.</p>		<p>Housing Affordability Strategy [CHAS] Table 7, Census Tract)</p> <ul style="list-style-type: none"> • (Forthcoming) Percentage of racially/ethnically concentrated areas of poverty (Affirmatively Furthering Fair Housing Draft Data Documentation, Census Tract) • Labor Market Engagement Index (Affirmatively Furthering Fair Housing Draft Data Documentation; ACS Tables B15003 and B23025, Block Group) • Transit accessible jobs [Environmental Protection Agency (EPA) Smart Locator Database, Variable D5dr, Block Group] • Intersection density (EPA Smart Location Database, Variable D3bpo4, Block Group) • Transportation costs as a percentage of income, moderate-income renters (Location Affordability index, column hh_7_t_rent) • Violent and property crime (Federal Bureau of Investigation FBI Uniform Crime Reporting Program Data) • Health care service delivery sites/Federally Qualified Health Centers (U.S. Department of Health and Human Services Health Resources and Services Administration Data Warehouse) 	
<p><i>Voluntary relocation because of the designation</i></p> <p>Does the PHA intend to provide reasonable notice of the designation and an explanation of available relocation benefits for the</p>	<p>Consolidated plan:</p> <ul style="list-style-type: none"> • Citizen participation [PR-15] • Consultation [PR-10] <p>Resident Advisory Board perspectives on designated housing plan (e.g., summary of comments or minutes from</p>	<p>---</p>	<p>---</p>

HUD review element and selected questions	PHA sources	HUD or other national level sources	Other sources
<p>agency and the tenant/family?</p> <p>Does the plan indicate that the PHA will provide access to features at a rental rate paid by the tenant that is comparable to the unit from which the tenant/family has vacated?</p> <p>Does the plan include information regarding the PHA's intention to make payments of actual reasonable moving expenses to the tenant/family?</p>	<p>Resident Advisory Board discussion regarding the plan)</p>		
<p><i>Court orders, lawsuits, investigations, VCAs and Section 504 actions</i></p> <p>Does the PHA have any outstanding court orders, VCAs or Section 504 Letters of Findings (LOF)? If yes, do they conflict with the plan?</p> <p>Does the field office have information about any lawsuits, pending investigation or tenancy litigation that may impact the proposed designation? If yes, please explain.</p>	<p>---</p>	<p>---</p>	<ul style="list-style-type: none"> • Consent decree or proposed/planned services as part of <i>Olmstead</i> plan (applicable jurisdiction <i>Olmstead</i> plan or settlement) • Filed complaints and settlement decisions (state, county, and/or municipal Fair Housing Agencies)

Relevant data resources

Resource	Website
Affirmatively Furthering Fair Housing Resources	http://egis.hud.gov/affht_pt http://www.huduser.org/portal/publications/pdf/FR-5173-P-01_AFFH_data_documentation.pdf
American Community Survey	http://www.census.gov/acs/www/#
Behavioral Risk Factor Surveillance System City and County Data	http://apps.nccd.cdc.gov/BRFSS-SMART/SeIMMSAPrevData.asp
CDC Web-based Injury Statistics Query and Reporting System (WISQARS), Injury Prevention and Control Data and Statistics	http://www.cdc.gov/injury/wisqars/
CPD Maps	http://egis.hud.gov/cpdmaps/
Community Commons	http://www.communitycommons.org/maps-data/
Community Health Needs Assessment (Community Commons) and Community Health Improvement Plans	http://assessment.communitycommons.org/CHNA/ http://www.naccho.org/topics/infrastructure/CHAIP/chachip-online-resource-center.cfm
Consolidated Planning/CHAS Data	http://www.huduser.org/portal/datasets/cp.html
County Health Rankings	http://www.countyhealthrankings.org
eCon Planning Suite	https://www.hudexchange.info/consolidated-plan/econ-planning-suite
EPA Smart Location Database	http://www.epa.gov/smartgrowth/smartlocationdatabase.htm
Federally Qualified Health Centers (HRSA Data Warehouse)	http://datawarehouse.hrsa.gov/
Homelessness Data Exchange (Point-in-Time Counts)	http://www.hudhdx.info/
Healthy Communities Transformation Index	http://healthyhousingsolutions.com/wp-content/uploads/2014/11/HUD_HCTI_project_overview_FINAL.pdf
HUD geospatial database	http://www.huduser.org/portal/datasets/gis.html

Resource	Website
Location Affordability Portal	http://www.locationaffordability.info/lai.aspx
Resident Characteristics Report (RCR)	http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/systems/pic/50058/rcr
U.S. Census	http://www.census.gov/
U.S. Department of Justice Civil Rights Division, <i>Olmstead</i>	http://www.ada.gov/Olmstead/
U.S. Department of Justice/FBI Crime Reporting Program, County Level Arrest and Offense Data	http://www.ucrdatatool.gov/Search/Crime/Crime.cfm
U.S. Department of Justice/FBI Crime Reporting Program, County Level Arrest and Offense Data	http://www.ucrdatatool.gov/Search/Crime/Crime.cfm
Walkscore (community walkability index)	https://www.walkscore.com

Endnotes

¹ See, for example, U.S. Department of Housing and Urban Development, "Notice PIH 2005-2 (HA)" (2005), accessed June 5, 2015, http://portal.hud.gov/hudportal/documents/huddoc?id=DOC_8096.pdf.

² U.S. Department of Housing and Urban Development, "Picture of Subsidized Households: 2012 Data, U.S. Total," accessed Sept. 11, 2014, <http://www.huduser.org/portal/datasets/picture/yearlydata.html#download-tab>.

³ U.S. Department of Housing and Urban Development, "Public Housing," accessed Feb. 12, 2015, http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/ph; and U.S. Department of Housing and Urban Development, "Picture of Subsidized Households."

⁴ U.S. Department of Housing and Urban Development, "Picture of Subsidized Households." The HIA team calculated the number of households where the head of household or spouse (whoever is older) is 62 or older. The team then applied the percentage of households 62 or older where either the household head or spouse has a disability to calculate the number of such households ("elderly disabled families").

⁵ Ibid.

⁶ Eleni C. Digenis-Bury et al., "Use of a Population-Based Survey to Describe the Health of Boston Public Housing Residents," *American Journal of Public Health* 98, no. 1 (2008): 85–91, [doi:10.2105/AJPH.2006.094912](https://doi.org/10.2105/AJPH.2006.094912).

⁷ Carmen DeNavas-Walt, Bernadette D. Proctor, and Jessica C. Smith, *Income, Poverty, and Health Insurance Coverage in the United States: 2012*, Current Population Reports, U.S. Census Bureau (2013), 60–245.

⁸ Embry Howell, Laura E. Harris, and Susan J. Popkin, "The Health Status of HOPE VI Public Housing Residents," *Journal of Health Care for the Poor and Underserved* 16, no. 2 (2005): 273–85; Susan J. Popkin et al., *A Decade of HOPE VI: Research Findings and Policy Challenges* (May 18, 2004), accessed Sept. 11, 2014, <http://www.urban.org/publications/411002.html>; Laura E. Harris and Deborah R. Kaye, "How Are HOPE VI Families Faring? Health," Urban Institute (Oct. 7, 2004), accessed Sept. 11, 2014, <http://www.urban.org/publications/311073.html>; Digenis-Bury et al., "Use of a Population-Based Survey," 85–91; H.B. Parton et al., "Health of Older Adults in New York City Public Housing: Part 1, Findings From the New York City Housing Authority Senior Survey," *Care Management Journals* 13, no. 3 (2012): 134–47; and H. B. Parton et al., "Health of Older Adults in New York City Public Housing: Part 2, Findings From the New York City Housing Authority Senior Survey," *Care Management Journals* 13, no. 4 (2012): 213–26.

⁹ Digenis-Bury et al., "Use of a Population-Based Survey," 87; Pamela L. Parsons et al., "Subsidized Housing Not Subsidized Health: Health Status and Fatigue Among Elders in Public Housing and Other Community Settings," *Ethnicity & Disease* 21, no. 1 (2011): 85–90, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3111957>.

¹⁰ E. Fuller-Thomson et al., "Basic ADL Disability and Functional Limitation Rates Among Older Americans From 2000–2005: The End of the Decline?" *Journals of Gerontology, Series A: Biological Sciences and Medical Sciences* 64A, no. 12 (2009): 1333–6, <http://biomedgerontology.oxfordjournals.org/content/early/2009/09/01/gerona.glp130.full>; and Harris and Kaye, "How Are HOPE VI Families Faring? Health."

¹¹ Donald L. Redfoot and Andrew Kochera, "Targeting Services to Those Most at Risk: Characteristics of Residents in Federally Subsidized Housing," *Journal of Housing for the Elderly* 18, no. 3–4 (2005): 137–63, http://www.tandfonline.com/doi/abs/10.1300/J081v18n03_06#.VSwntvnF9g0.

¹² Analysis of Behavioral Risk Factor Surveillance System data from 2012 of population health characteristics among seniors and people with disabilities in counties where housing authorities operate properties.

¹³ Centers for Disease Control and Prevention, "Behavioral Risk Factor Surveillance System: Prevalence and Trends Data, Nationwide (States and DC), Overweight and Obesity (BMI), 2012" and "Diabetes, 2010," accessed Aug. 25, 2014, <http://apps.nccd.cdc.gov/brfss>.

¹⁴ Sarah A. Burgard, Kristin S. Seefeldt, and Sarah Zelner, "Housing Instability and Health: Findings From the Michigan Recession and Recovery Study," *Social Science & Medicine* 75, no. 12 (2012): 2215–24, [doi:10.1016/j.socscimed.2012.08.020](https://doi.org/10.1016/j.socscimed.2012.08.020).

¹⁵ Mark Nord and Linda S. Kantor, "Seasonal Variation in Food Insecurity Is Associated With Heating and Cooling Costs Among Low-Income Elderly Americans," *Journal of Nutrition* 136, no. 11 (2006): 2939–44, <http://jn.nutrition.org/content/136/11/2939.full.pdf+html>; National Energy Assistance Directors' Association, "National Energy Assistance Survey" (November 2011), accessed Jan. 24, 2014, http://neada.org/wp-content/uploads/2013/05/NEA_Survey_Nov11.pdf; Tina L. Palmieri and David G. Greenhalgh, "Increased Incidence of Heater-Related Burn Injury During a Power Crisis," *Archives of Surgery* 137, no. 10 (2002),

doi:10.1001/archsurg.137.10.1106; Lynn Page Snyder and Christopher A. Baker, *Affordable Home Energy and Health: Making the Connections*, AARP Public Policy Institute (2010), <http://assets.aarp.org/rgcenter/ppi/cons-prot/2010-05-energy.pdf>; P. She and G.A. Livermore, "Material Hardship, Poverty, and Disability Among Working-Age Adults," *Social Science Quarterly* (2007), doi:10.1111/j.1540-6237.2007.00513.x; and Burgard, Seefeldt, and Zelner, "Housing Instability and Health."

¹⁶ Center on Budget and Policy Priorities, "Policy Basics: Federal Rental Assistance," accessed Aug. 27, 2014, <http://www.cbpp.org/cms/?fa=view&id=3890>.

¹⁷ U.S. Department of Housing and Urban Development, "Public Housing Occupancy Guidebook" (2003), accessed July 16, 2014, http://portal.hud.gov/hudportal/documents/huddoc?id=DOC_10760.pdf; and U.S. Department of Housing and Urban Development, "Housing Choice Vouchers Fact Sheet," accessed Aug. 12, 2014, http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/hcv/about/fact_sheet.

¹⁸ U.S. Department of Housing and Urban Development, "Picture of Subsidized Households."

¹⁹ U.S. Department of Housing and Urban Development, *Worst Case Housing Needs 2011: Report to Congress* (2013), accessed Sept. 10, 2014, http://www.huduser.org/portal/Publications/pdf/HUD-506_WorstCase2011_reportv3.pdf.

²⁰ The 2009 to 2011 data were the most recent available at the time this HIA was being conducted. HUD released updated data in February 2015. For the updated figures, see U.S. Department of Housing and Urban Development, "Worst Case Housing Needs: 2015 Report to Congress—Executive Summary" (2015), accessed Feb. 20, 2015, http://www.huduser.org/portal/publications/affhsg/wc_HsgNeeds15.html.

²¹ *Ibid.*

²² U.S. Department of Housing and Urban Development, "Resources for Chronic Homelessness," accessed Feb. 27, 2015, <https://www.hudexchange.info/homelessness-assistance/resources-for-chronic-homelessness>.

²³ Vickie L. Shavers and Brenda S. Shavers, "Racism and Health Inequity Among Americans," *Journal of the National Medical Association* 98, no. 3 (2006): 386–96, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2576116/pdf/jnma00190-0078.pdf>; and David R. Williams and Selina A. Mohammed, "Discrimination and Racial Disparities in Health: Evidence and Needed Research," *Journal of Behavioral Medicine* 32, no. 1 (2008): 20–47, doi:10.1007/s10865-008-9185-0.

²⁴ Susan J. Popkin and M.K. Cunningham, "Searching for Rental Housing With Section 8 in the Chicago Region," *Urban Institute* (2000), 1-56, accessed Sept. 3, 2014, <http://www.urban.org/UploadedPDF/410314.pdf>.

²⁵ Elizabeth Brondolo, Linda C. Gallo, and Hector F. Myers, "Race, Racism and Health: Disparities, Mechanisms, and Interventions," *Journal of Behavioral Medicine* 32 no. 1 (2009): 1–8, doi:10.1007/s10865-008-9190-3; Williams and Mohammed, "Discrimination and Racial Disparities"; and Yin Paradies, "A Systematic Review of Empirical Research on Self-Reported Racism and Health," *International Journal of Epidemiology* 35 no. 4 (2006): 888–901, doi:10.1093/ije/dyl056.

²⁶ U.S. Department of Housing and Urban Development, "FHEO Filed Cases," data set, accessed Aug. 25, 2014, <http://catalog.data.gov/dataset/fheo-filed-cases>.

²⁷ *Ibid.*; U.S. Department of Housing and Urban Development, "The Status of Fair Housing," accessed June 13, 2014, http://www.huduser.org/portal/pdredge/pdr_edge_research_040612.html.

²⁸ The 1999 Supreme Court decision *Olmstead v. L.C.* affirmed that unjustified segregation of individuals with disabilities is prohibited by the Americans with Disabilities Act. Following the *Olmstead* decision, several new federal funding streams and strategies emerged to help facilitate the transition of individuals with disabilities out of institutions and segregated settings and facilitate the provision of housing and services in a community-based setting. See *Olmstead v. L.C.*, 527 U.S. 581 (1999), <https://supreme.justia.com/cases/federal/us/527/581/case.html>; and U.S. Department of Housing and Urban Development, "Statement of the Department of Housing and Urban Development on the Role of Housing in Accomplishing the Goals of *Olmstead*" (June 4, 2013), accessed Sept. 17, 2014, <http://portal.hud.gov/hudportal/documents/huddoc?id=OlmsteadGuidnc060413.pdf>.

²⁹ M. Kitchener et al., "Institutional and Community-Based Long-Term Care: A Comparative Estimate of Public Costs," *Journal of Health and Social Policy* 22, no. 2 (2006): 31–50, doi:10.1300/J045v22n02_03.

³⁰ Federal Interagency Forum on Aging-Related Statistics, *Older Americans 2012: Key Indicators of Well-Being*, Federal Interagency Forum on Aging-Related Statistics (2012), accessed Aug. 25, 2014, http://www.agingstats.gov/Main_Site/Data/2012_Documents/docs/EntireChartbook.pdf.

³¹ Commission on Affordable Housing and Health Facility Needs for Seniors in the 21st Century, *A Quiet Crisis in America* (2002), 79, http://govinfo.library.unt.edu/seniorscommission/pages/final_report/finalreport.pdf.

- ³² U.S. Department of Housing and Urban Development, “Resident Opportunity and Self Sufficiency Program,” http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/ph/ross/about.
- ³³ Centers for Disease Control and Prevention, Home and Recreational Safety, “Falls Among Older Adults: An Overview,” (2013), <http://www.cdc.gov/HomeandRecreationalSafety/Falls/adultfalls.html>; R.A. Lyons et al., “Modification of the Home Environment for the Reduction of Injuries (Review),” *Cochrane Library* 4 (2007), accessed March 12, 2014, <http://www.nchh.org/Portals/0/Contents/Article0770.pdf>; National Center for Healthy Housing, *Housing Interventions and Health: A Review of the Evidence* (2009), accessed March 12, 2014, <http://www.nchh.org/Portals/0/Contents/Housing%20Interventions%20and%20Health.pdf>; and Centers for Disease Control and Prevention, “Healthy Aging: Helping People to Live Long and Productive Lives and Enjoy a Good Quality of Life” (2011), accessed Aug. 25, 2014, http://www.cdc.gov/chronicdisease/resources/publications/aag/pdf/2011/healthy_aging_aag_508.pdf.
- ³⁴ Katherine Froehlich-Grobe et al., “Physical Access in Urban Public Housing Facilities,” *Disability and Health Journal* 1, no. 1 (2008): 25–9, doi:10.1016/j.dhjo.2007.11.003.
- ³⁵ S.K. Smith, S. Rayer, and E.A. Smith, “Aging and Disability: Implications for the Housing Industry and Housing Policy in the United States,” *Journal of the American Planning Association* (2008): 289–306, <http://www.tandfonline.com/doi/pdf/10.1080/01944360802197132>.
- ³⁶ Department of Housing and Urban Development, *2014–2018 HUD Strategic Plan*, “Goal 3. Use Housing as a Platform to Improve Quality of Life,” accessed Oct. 10, 2014, <http://portal.hud.gov/hudportal/documents/huddoc?id=hudstrategicplan2014-2018.pdf>.
- ³⁷ HUD’s eCon Planning Suite is a tool that supports its grantees and the public in assessing local needs and making strategic community development investments.
- ³⁸ Alex F. Schwartz, *Housing Policy in the United States: An Introduction* (New York: Routledge, 2006); U.S. Department of Housing and Urban Development, “HUD History,” accessed Sept. 11, 2015, http://portal.hud.gov/hudportal/HUD?src=/about/hud_history.
- ³⁹ U.S. Department of Housing and Urban Development, “Public Housing”; U.S. Department of Housing and Urban Development, “Picture of Subsidized Households.”
- ⁴⁰ Alex Schwartz, *Housing Policy in the United States*, 2nd ed. (New York: Routledge, 2010).
- ⁴¹ U.S. Department of Housing and Urban Development, “HUD’s Public Housing Program,” accessed July 16, 2014, http://portal.hud.gov/hudportal/HUD?src=/topics/rental_assistance/phprog.
- ⁴² U.S. Department of Housing and Urban Development, *Public Housing Occupancy Guidebook*.
- ⁴³ Ibid.
- ⁴⁴ U.S. Department of Housing and Urban Development, “Picture of Subsidized Households.”
- ⁴⁵ The data presented in this paragraph are based on the 2,787 PHAs that are included in the HUD Assisted Housing Properties database. This data set does not include the full universe of approximately 3,300 public housing authorities in the country.
- ⁴⁶ U.S. Department of Housing and Urban Development, “Geospatial Data and Map Services: Assisted Housing Properties” (2012), accessed Nov. 2, 2013 (database), <http://www.huduser.org/portal/datasets/gis/spatial.html>.
- ⁴⁷ J. Pynoos and T. Parrott, “The Politics of Mixing Older Persons and Younger Persons With Disabilities in Federally Assisted Housing,” *The Gerontologist* 36, no. 4 (1996): 518–529.
- ⁴⁸ Ibid.
- ⁴⁹ M. Allen, “Separate and Unequal: The Struggle of Tenants With Mental Illness to Maintain Housing,” *Clearinghouse Review* (November 1996): 720–739; U.S. Department of Housing and Urban Development, “Statement of the Department of Housing and Urban Development on the Role of Housing.”
- ⁵⁰ A.S. Kanter, “A Home of One’s Own: The Fair Housing Amendments Act of 1988 and Housing Discrimination Against People With Mental Disabilities,” *American University Law Review* 43 (1994): 925–994.
- ⁵¹ Pynoos and Parrott, “The Politics of Mixing.”
- ⁵² AARP, “Housing Providers Seek Clarification on Fair Housing Amendments,” *AARP Housing Report* (1991–1992, Winter); and Pynoos and Parrott, “The Politics of Mixing.” As previously noted, the HUD definition of elderly families during this time explicitly included individuals with disabilities.
- ⁵³ Pynoos and Parrott, “The Politics of Mixing.”

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- ⁵⁴ U.S. Department of Housing and Urban Development, *Housing Mentally Disabled Persons in Public Housing for the Elderly* (Washington: U.S. Government Printing Office, 1991); Pynoos and Parrott, “The Politics of Mixing.”
- ⁵⁵ U.S. Department of Housing and Urban Development, *Public Housing Occupancy Guidebook*.
- ⁵⁶ U.S. Government Accountability Office, *Public Housing: Housing Persons With Mental Disabilities With the Elderly* (August 1992), Report to the Chairman, Subcommittee on Housing and Urban Affairs, Committee on Banking, Housing, and Urban Affairs, U.S. Senate, accessed Sept. 10, 2014, <http://www.gao.gov/assets/160/152197.pdf>.
- ⁵⁷ Ibid.
- ⁵⁸ National Housing Law Project, “New Law Permits Elderly-Only Housing,” *Housing Law Bulletin* 23 (1993): 1–6.
- ⁵⁹ Pynoos and Parrott, “The Politics of Mixing.”
- ⁶⁰ Ibid.
- ⁶¹ National Housing Law Project, “New Law”; Pynoos and Parrott, “The Politics of Mixing.”
- ⁶² Public and Assisted Housing Occupancy Task Force, *Report to Congress and to the Department of Housing and Urban Development* (April 7, 1994), accessed May 27, 2014, <http://www.huduser.org/Publications/pdf/HUD-11653.pdf>.
- ⁶³ Ibid. The task force included 30 members, representing housing providers and developers; property managers; advocates for seniors, people with disabilities, and public and assisted housing residents; state Housing Finance Authorities (HFAs); social services agencies.
- ⁶⁴ The PHA is prohibited from evicting any existing tenants lawfully residing in the project due to the designation.
- ⁶⁵ Office of Public and Indian Housing, Notice PIH 96-60 (HA), Aug. 5, 1996.
- ⁶⁶ U.S. Department of Housing and Urban Development, “Designated Housing Plan Frequently Asked Questions,” accessed Jan. 30, 2014, http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/ph/dhp/faq.
- ⁶⁷ 24 CFR § 945.205(a); accessed Jan. 30, 2014, <http://www.law.cornell.edu/cfr/text/24/945.205>.
- ⁶⁸ 24 CFR § 960, Subpart D; accessed Jan. 30, 2014, <http://www.law.cornell.edu/cfr/text/24/960.407>.
- ⁶⁹ Quality assurance and quality control of these data suggest that surveillance and reporting could be improved, particularly with respect to renewal status.
- ⁷⁰ Data presented are based on HUD Geospatial Data and Map Services, *2006–2010 Assisted Housing Properties*, <http://www.huduser.org/portal/datasets/gis/assthsng.html>; U.S. Department of Housing and Urban Development, “Resident Characteristics Report,” <https://pic.hud.gov/pic/RCRPublic/rcrmain.asp>; and HUD’s Designated Housing Status Report as of April 2014, http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/ph/dhp/designated. HUD classifies plans as active or expired. For this analysis, PHAs with active designation status were considered current users. All other PHAs are identified as having no designation (“no active plan” or “none”).
- ⁷¹ Note that HUD rarely allows the designation of housing for people with disabilities only given that such a designation conflicts with the goals of desegregation and community integration.
- ⁷² The HIA team defined properties as *senior-only* if they are properties with ≥ 75 percent one-bedroom units and have residents who are predominantly (≥ 75 percent of residents) seniors or near-elderly (ages 51 and older) and *mixed or disabled-only* if they are properties with ≥ 75 percent one-bedroom units, where fewer than 75 percent of residents are seniors or near-elderly (ages 51 and older), and where residents younger than 62 are predominantly disabled (≥ 80 percent of residents).
- ⁷³ U.S. Department of Housing and Urban Development, “Picture of Subsidized Households.”
- ⁷⁴ Center on Budget and Policy Priorities, “Policy Basics: Introduction to Public Housing,” accessed July 17, 2014, <http://www.cbpp.org/cms/?fa=view&id=2528>.
- ⁷⁵ Ibid.
- ⁷⁶ Ibid.
- ⁷⁷ Abt Associates Inc., *Capital Needs in the Public Housing Program* (Cambridge, MA: Author, 2010), accessed July 17, 2014, http://portal.hud.gov/hudportal/documents/huddoc?id=PH_Capital_Needs.pdf.
- ⁷⁸ S. Hoekman and J. Griffith, “HUD’s Rental Assistance Demonstration: A Bold Plan for Preserving Affordability in an Era of Austerity,” Enterprise Community Partners (2013), accessed July 17, 2014, <http://www.enterprisecommunity.com/servlet/servlet.FileDownload?file=00Pa000000JUpKpEAL>; “Rental Assistance Demonstration, Residents,” U.S. Department of Housing and Urban Development, accessed July 17, 2014, <http://portal.hud.gov/hudportal/HUD?src=/RAD/residents>.

-
- ⁷⁹ U.S. Department of Housing and Urban Development, “HUD Launches Groundbreaking Rental Assistance Demonstration to Preserve and Strengthen Public, Other HUD-Assisted Housing,” press release, Jan. 10, 2013, accessed July 17, 2014, http://portal.hud.gov/hudportal/HUD?src=/press/press_releases_media_advisories/2013/HUDNo.13-003.
- ⁸⁰ Ibid.; U.S. Department of Housing and Urban Development, “Rental Assistance Demonstration, Program Information,” accessed July 17, 2014, <http://portal.hud.gov/hudportal/HUD?src=/RAD/info>.
- ⁸¹ Tax credit syndicators often raise money from multiple investors and act as their representative in affordable housing investments.
- ⁸² U.S. Department of Housing and Urban Development, “Housing Choice Vouchers Fact Sheet,” accessed July 17, 2014, http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/hcv/about/fact_sheet.
- ⁸³ U.S. Department of Housing and Urban Development, “Picture of Subsidized Households.”
- ⁸⁴ Ibid. For estimates of non-elderly disabled families, the team calculated the number of households where the head of household or spouse (whoever is older) is younger than 62. The team then applied the percentage of households below age 62 where either household or spouse has a disability to calculate the number of households below age 62 where either the household head or spouse has a disability.
- ⁸⁵ U.S. Department of Housing and Urban Development, “Section 202 Supportive Housing for the Elderly Program,” accessed Oct. 9, 2013, http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/mfh/progdesc/eld202; U.S. Department of Housing and Urban Development, “Section 811 Supportive Housing for Persons With Disabilities,” accessed Oct. 9, 2013, http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/mfh/progdesc/disab811; H. Korman, “Clash of the Integrationists: The Mismatch of Civil Rights Imperatives in Supportive Housing for People With Disabilities,” *Saint Louis University Public Law Review* 26, no. 3 (2007): 3–43; USC § 11403g (2006); U.S. Department of Housing and Urban Development, “Shelter Plus Care (S+C),” accessed Oct. 9, 2013, <http://portal.hud.gov/hudportal/HUD?src=/hudprograms/spc>; U.S. Department of Housing and Urban Development, “Housing Opportunities for Persons With AIDS,” accessed Oct. 9, 2013, <https://www.hudexchange.info/hopwa>.
- ⁸⁶ National Research Council, *Improving Health in the United States: The Role of Health Impact Assessment* (Washington: National Academies Press, 2011), 5, accessed July 8, 2014, http://www.nap.edu/catalog.php?record_id=13229.
- ⁸⁷ Ibid., 6.
- ⁸⁸ U.S. Department of Health and Human Services, “National Prevention Strategy,” accessed July 10, 2014, <http://www.surgeongeneral.gov/initiatives/prevention/strategy>.
- ⁸⁹ The National Prevention Council is a multiagency federal panel chaired by the surgeon general that is charged with working together to improve the health, well-being, and resilience of all Americans. See U.S. Department of Health and Human Services, “National Prevention Council,” accessed May 29, 2015, <http://www.surgeongeneral.gov/priorities/prevention/about>.
- ⁹⁰ All other sources include Public Housing, Tenant-Based Vouchers, Project-Based Certificates, Project-Based Vouchers, Combined Project-Based Certificate and Project-Based Voucher, Homeownership Vouchers, and Section 8 Moderate Rehabilitation (including Single Room Occupancy Rehabilitation).
- ⁹¹ National Collaborating Centre for Healthy Public Policy, *Citizen Participation in Health Impact Assessment: An Overview of the Principal Arguments Supporting It* (2011), accessed July 25, 2014, http://www.ncchpp.ca/docs/EIS-HIA_participation_advantagesEN.pdf.
- ⁹² For ease of scheduling, some interviews were bundled into conversations with multiple staff members or community partners at the same time (e.g., a resident service coordinator or property manager meeting). When conducting focus groups or interviews, the HIA team did not ask service coordinators to specify if they were funded through HUD’s Elderly/Disabled or Multifamily Housing Service Coordinator Program or another source.
- ⁹³ National Research Council, *Improving Health in the United States*, 77.
- ⁹⁴ U.S. Department of Health and Human Services, “2012 HHS Poverty Guidelines,” accessed Aug. 6, 2014, <http://aspe.hhs.gov/poverty/12poverty.shtml>; “Picture of Subsidized Households,” U.S. Department of Housing and Urban Development.
- ⁹⁵ U.S. Department of Housing and Urban Development, “Picture of Subsidized Households.”
- ⁹⁶ Center on Budget and Policy Priorities, “National and State Housing Data Fact Sheets,” accessed March 10, 2014, <http://www.cbpp.org/cms/index.cfm?fa=view&id=3586>.
- ⁹⁷ Ibid.

⁹⁸ Estimates based on U.S. Department of Housing and Urban Development, “Picture of Subsidized Households.” The HIA team calculated the number of households where the head of household or spouse (whoever is older) is 62 or older. The team then applied the percentage of households 62 or older where either the household head or spouse has a disability to calculate the number of households 62 or older where either the household head or spouse has a disability (“elderly disabled families”).

⁹⁹ U.S. Department of Housing and Urban Development, “Picture of Subsidized Households.”

¹⁰⁰ Estimates based on U.S. Department of Housing and Urban Development, “Picture of Subsidized Households.” The HIA team calculated the number of households where the head of household or spouse (whoever is older) is younger than 62. The team then applied the percentage of households below age 62 where either household or spouse has a disability to calculate the number of households below age 62 where either the household head or spouse has a disability (“younger disabled families”).

¹⁰¹ Estimates based on U.S. Department of Housing and Urban Development, “Resident Characteristics Report,” 2013–2014 data as of April 30, 2014, <http://catalog.data.gov/dataset/resident-characteristics-report/resource/f980e9f0-471e-40c8-b99d-54e74710407c>. Select “Public Housing” and then “National,” and see “Household” and “Length of Stay” variables.

¹⁰² U.S. Department of Housing and Urban Development, *Public Housing Occupancy Guidebook*.

¹⁰³ U.S. Department of Housing and Urban Development, “Picture of Subsidized Households.”

¹⁰⁴ Joint Center for Housing Studies of Harvard University, *Housing America’s Older Adults: Meeting the Needs of an Aging Population* (Cambridge, MA: Harvard University, 2014), accessed May 28, 2015, http://www.jchs.harvard.edu/research/housing_americas_older_adults.

¹⁰⁵ Frederick J. Eggers and Fouad Moumen, *Disability Variables in the American Housing Survey*, (Washington: U.S. Department of Housing and Urban Development, Office of Policy Development and Research, 2011), accessed Feb. 12, 2014, <http://www.huduser.org/publications/pdf/AHSTask8.pdf>.

¹⁰⁶ Ibid.

¹⁰⁷ Joint Center for Housing Studies of Harvard University, *Housing America’s Older Adults*.

¹⁰⁸ As part of this HIA, an anonymous survey was conducted with focus group participants made up of senior and disabled residents in designated housing ($n = 123$).

¹⁰⁹ U.S. Department of Housing and Urban Development, “Geospatial Data and Map Services;” U.S. Department of Housing and Urban Development, “Resident Characteristics Report,” as of Nov. 2, 2013 (database), <https://pic.hud.gov/pic/RCRPublic/rcrmain.asp>.

¹¹⁰ Social Security Administration, “Supplemental Security Income Home Page,” 2014 edition, accessed June 12, 2014, <http://www.ssa.gov/ssi/>.

¹¹¹ Technical Assistance Collaborative Inc. and Consortium for Citizens With Disabilities, Housing Task Force, *Priced Out in 2012: The Housing Crisis for People With Disabilities* (2013), accessed March 12, 2014, <http://www.tacinc.org/media/33368/PricedOut2012.pdf>; U.S. Department of Health and Human Services, “2012 HHS Poverty Guidelines.”

¹¹² National Council on Aging, “Economic Security for Seniors: Fact Sheet,” accessed March 12, 2014, <http://www.ncoa.org/press-room/fact-sheets/economic-security-for.html>.

¹¹³ Estimates based on U.S. Department of Housing and Urban Development, “Resident Characteristics Report.” Select “Public Housing” and then “National,” and see “Income” variables.

¹¹⁴ DeNavas-Walt et al., Income, Poverty, and Health Insurance Coverage.

¹¹⁵ U.S. Department of Health and Human Services, Administration on Aging, Administration for Community Living, *A Profile of Older Americans: 2013* (2013), accessed March 12, 2014, http://www.aoa.gov/Aging_Statistics/Profile/2013/docs/2013_Profile.pdf. The federal poverty threshold is generally recognized as a limited measure that provides an absolute income threshold to measure those who are most impoverished across the United States.

¹¹⁶ DeNavas-Walt et al., Income, Poverty, and Health Insurance Coverage.

¹¹⁷ Ibid.

¹¹⁸ John D. Westbrook et al., “Pre-Graduation Transition Services for Persons With Autism Spectrum Disorders: Effects on Employment Outcomes,” *Campbell Review* 11 (2013); G.G. Walter and R. Dirmyer, “The Effect of Education on the Occupational Status of Deaf and Hard of Hearing 26-to-64-Year-Olds,” *American Annals of the Deaf* 158, no. 1 (2013): 41–

- 49; J.E. Larson et al., "Analyses of Employment Incentives and Barriers for Individuals With Psychiatric Disabilities," *Rehabilitation Psychology* 56, no. 2 (2011): 145–149; T.J. Achterberg et al., "Factors That Promote or Hinder Young Disabled People in Work Participation: A Systematic Review," *Journal of Occupational Rehabilitation* 19, no. 2 (2009): 129–141.
- ¹¹⁹ J.A. Cook, "Employment Barriers for Persons With Psychiatric Disabilities: Update of a Report for the President's Commission," *Psychiatric Services* 57, no. 10 (2006): 1391–1405.
- ¹²⁰ Eggers and Moumen, *Disability Variables*.
- ¹²¹ DeNavas-Walt et al., Income, Poverty, and Health Insurance Coverage.
- ¹²² Digenis-Bury et al., "Use of a Population-Based Survey."
- ¹²³ As part of this HIA, an anonymous survey was conducted with focus group participants made up of senior and disabled residents in designated housing ($n = 123$).
- ¹²⁴ Howell et al., "The Health Status of HOPE VI Public Housing Residents"; Popkin et al., "A Decade of HOPE VI"; Harris and Kaye, "How Are HOPE VI Families Faring? Health"; Digenis-Bury et al., "Use of a Population-Based Survey"; Parton et al., "Health of Older Adults: Part 1"; Parton et al., "Health of Older Adults: Part 2."
- ¹²⁵ Lisa F. Berkman and Ichiro Kawachi, *Social Epidemiology* (New York: Oxford University Press, 2000).
- ¹²⁶ Howell et al., "The Health Status of HOPE VI Public Housing Residents"; Popkin et al., "A Decade of HOPE VI"; Harris and Kaye, "How Are HOPE VI Families Faring?"
- ¹²⁷ Digenis-Bury et al., "Use of a Population-Based Survey."
- ¹²⁸ Parton et al., "Health of Older Adults: Part 1"; Parton et al., "Health of Older Adults: Part 2."
- ¹²⁹ Digenis-Bury et al., "Use of a Population-Based Survey"; Parsons et al., "Subsidized Housing Not Subsidized Health."
- ¹³⁰ Digenis-Bury et al., "Use of a Population-Based Survey."
- ¹³¹ Parsons et al., "Subsidized Housing Not Subsidized Health."
- ¹³² As part of this HIA, an anonymous survey was conducted with focus group participants made up of senior and disabled residents in designated housing ($n = 123$).
- ¹³³ Carissa Van den Berk-Clark and James McGuire, "Elderly Homeless Veterans in Los Angeles: Chronicity and Precipitants of Homelessness," *American Journal of Public Health* 103, no. S2 (2013): S232–S238, doi: 10.2105/AJPH.2013.301309; Lin J. Drury, "From Homeless to Housed: Caring for People in Transition," *Journal of Community Health Nursing* 25, no. 2 (2008): 91–105, doi:10.1080/07370010802017109.
- ¹³⁴ Analysis of Behavioral Risk Factor Surveillance System 2012 data of population health characteristics among seniors and people with disabilities in counties where housing authorities operate properties. Please see Methods and Appendix C.
- ¹³⁵ Harris and Kaye, "How Are HOPE VI Families Faring?"; Digenis-Bury et al., "Use of a Population-Based Survey"; Jo-Anna Rorie et al., "Using Resident Health Advocates to Improve Public Health Screening and Follow-Up Among Public Housing Residents, Boston, 2007–2008," *Preventing Chronic Disease* 8, no. 1 (2011): 1–10; Earle C. Chambers and Emily Rosenbaum, "Cardiovascular Health Outcomes of Latinos in the Affordable Housing as an Obesity Mediating Environment (AHOME) Study: A Study of Rental Assistance Use," *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, (November 2013), doi:10.1007/s11524-013-9840-9; Katie M. Heinrich, "How Does the Built Environment Relate to Body Mass Index and Obesity Prevalence Among Public Housing Residents?" *American Journal of Health Promotion* 22, no. 3: 187–194, doi:10.4278/ajhp.22.3.187; Erin Ruel et al., "Is Public Housing the Cause of Poor Health or a Safety Net for the Unhealthy Poor?" *Journal of Urban Health: Bulletin of the New York Academy of Medicine* 87, no. 5 (2010): 827–838, doi:10.1007/s11524-010-9484-y; Caterina G. Roman et al., "The Relation of the Perceived Environment to Fear, Physical Activity, and Health in Public Housing Developments: Evidence From Chicago," *Journal of Public Health Policy* 30, Suppl. 1 (2009): S286–S308, doi:10.1057/jphp.2008.62; Rachel C. Shelton et al., "The Association Between Racial and Gender Discrimination and Body Mass Index Among Residents Living in Lower-Income Housing," *Ethnicity & Disease* 19, no. 3 (2009): 251–257.
- ¹³⁶ Ruel et al., "Is Public Housing the Cause of Poor Health?"; Roman et al., "The Relation of the Perceived Environment"; Chambers and Rosenbaum, "Cardiovascular Health Outcomes."
- ¹³⁷ Centers for Disease Control and Prevention, "Behavioral Risk Factor Surveillance System: Prevalence and Trends Data, Nationwide (States and DC)," accessed Oct. 8, 2014, <http://apps.nccd.cdc.gov/brfss>. Data reflect the most recent statistics available as of Oct. 8, 2014 (2013 data for obesity and high blood pressure and 2010 data for diabetes and asthma statistics).

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- ¹³⁸ Harris and Kaye, "How Are HOPE VI Families Faring?"; Deirdre Oakley, Erin Ruel, and G. Elton Wilson, *A Choice With No Options: Atlanta Public Housing Residents' Lived Experiences in the Face of Relocation* (Atlanta: Partnership for Urban Health Research, Georgia State University, 2008), accessed Jan. 29, 2014, http://www2.gsu.edu/~wwwwexa/news/download/gsu_public_housing_report1.pdf; Ruel et al., "Is Public Housing the Cause of Poor Health?"; Howell et al., "The Health Status of HOPE VI Public Housing Residents."
- ¹³⁹ Centers for Disease Control and Prevention, "Behavioral Risk Factor Surveillance System." Data reflect the most recent statistics available as of Oct. 8, 2014 (2013 data for obesity and high blood pressure and 2010 data for diabetes and asthma statistics).
- ¹⁴⁰ Parsons et al., "Subsidized Housing Not Subsidized Health."
- ¹⁴¹ Amal J. Khoury et al., "The Association Between Chronic Disease and Physical Disability Among Female Medicaid Beneficiaries 18–64 Years of Age," *Disability and Health Journal* 6, no. 2 (April 2013): 141–148, doi:10.1016/j.dhjo.2012.11.006; Margaret A. Nosek et al., "Secondary Conditions in a Community-Based Sample of Women With Physical Disabilities Over a 1-Year Period," *Archives of Physical Medicine and Rehabilitation* 87, no. 3 (March 2006): 320–327.
- ¹⁴² Analysis of Behavioral Risk Factor Surveillance System 2012 data of population health characteristics among seniors and people with disabilities in counties where housing authorities operate properties. Please see Methods and Appendix C.
- ¹⁴³ Centers for Disease Control and Prevention, "Behavioral Risk Factor Surveillance System: Prevalence and Trends Data, Nationwide (States and DC), Overweight and Obesity (BMI), 2012, and Diabetes, 2010," accessed Aug. 27, 2014, <http://apps.nccd.cdc.gov/brfss/>.
- ¹⁴⁴ Parton et al., "Health of Older Adults: Part 1"; Parton et al., "Health of Older Adults: Part 2"; Oakley et al., *A Choice With No Options*; Adam Simning, Edwin van Wijngaarden, and Yeates Conwell, "Anxiety, Mood, and Substance Use Disorders in United States African-American Public Housing Residents," *Social Psychiatry and Psychiatric Epidemiology* 46, no. 10 (2011): 983–992, doi:10.1007/s00127-010-0267-2; Adam Simning et al., "Mental Healthcare Need and Service Utilization in Older Adults Living in Public Housing," *American Journal of Geriatric Psychiatry* 20, no. 5 (2012): 441–451, doi:10.1097/JGP.0b013e31822003a7.
- ¹⁴⁵ Parton et al., "Health of Older Adults: Part 1"; Parton et al., "Health of Older Adults: Part 2"; Simning et al., "Anxiety, Mood, and Substance Use Disorders"; Simning et al., "Mental Healthcare Need."
- ¹⁴⁶ Parton et al., "Health of Older Adults: Part 1."
- ¹⁴⁷ Parsons et al., "Subsidized Housing Not Subsidized Health."
- ¹⁴⁸ Adam Simning, Yeates Conwell, and Edwin van Wijngaarden, "Cognitive Impairment in Public Housing Residents Living in Western New York," *Social Psychiatry and Psychiatric Epidemiology* (May 2013), doi:10.1007/s00127-013-0712-0; Victoria Cotrell and Paula C. Carder, "Health-Related Needs Assessment of Older Residents in Subsidized Housing," *Cityscape* (2010): 47–66.
- ¹⁴⁹ Digenis-Bury et al., "Use of a Population-Based Survey."
- ¹⁵⁰ Ibid.
- ¹⁵¹ Simning et al., "Anxiety, Mood, and Substance Use Disorders."
- ¹⁵² Van den Berk-Clark and McGuire, "Elderly Homeless Veterans in Los Angeles"; Susan Decker, Patricia Cary, and Lorretta Krautscheid, "From the Streets to Assisted Living: Perceptions of a Vulnerable Population," *Journal of Psychosocial Nursing and Mental Health Services* 44, no. 6 (2006): 18–27; Namkee G. Choi et al., "Association Between Participant-Identified Problems and Depression Severity in Problem-Solving Therapy for Low-Income Homebound Older Adults," *International Journal of Geriatric Psychiatry* 27, no. 5 (2012): 491–499.
- ¹⁵³ Van den Berk-Clark and McGuire, "Elderly Homeless Veterans in Los Angeles"; Drury, "From Homeless to Housed."
- ¹⁵⁴ Rebecca T. Brown et al., "Factors Associated With Geriatric Syndromes in Older Homeless Adults," *Journal of Health Care for the Poor and Underserved* 24, no. 2 (2013): 456–468, doi:10.1353/hpu.2013.0077.
- ¹⁵⁵ Analysis of Behavioral Risk Factor Surveillance System 2012 data of population health characteristics among seniors and people with disabilities in counties where housing authorities operate properties. Please see Methods and Appendix C.
- ¹⁵⁶ Analysis of Behavioral Risk Factor Surveillance System 2012 data of population health characteristics among seniors and people with disabilities in counties where housing authorities operate properties. Please see Methods and Appendix C.
- ¹⁵⁷ Analysis of Behavioral Risk Factor Surveillance System 2012 data of population health characteristics among seniors and people with disabilities in counties where housing authorities operate properties. Please see Methods and Appendix C.

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- ¹⁵⁸ Fuller-Thomson et al., “Basic ADL Disability and Functional Limitation Rates”; Harris and Kaye, “How Are HOPE VI Families Faring?”
- ¹⁵⁹ Cotrell and Carder, “Health-Related Needs Assessment”; Redfoot and Kochera, “Targeting Services”; Simning et al., “Cognitive Impairment”; Parton et al., “Health of Older Adults: Part 1”; Parton et al., “Health of Older Adults: Part 2.”
- ¹⁶⁰ Redfoot and Kochera, “Targeting Services.”
- ¹⁶¹ Karen Gibler, “Aging Subsidized Housing Residents: A Growing Problem in U.S. Cities,” *Journal of Real Estate Research* 25, no. 4 (2003): 395–420; Cotrell and Carder, “Health-Related Needs Assessment”; Parton et al., “Health of Older Adults: Part 1”; Redfoot and Kochera, “Targeting Services.”
- ¹⁶² Harris and Kaye, “How Are HOPE VI Families Faring?”; Ruel et al., “Is Public Housing the Cause of Poor Health?”; Gibler, “Aging Subsidized Housing Residents.”
- ¹⁶³ National Low Income Housing Coalition, “Who Lives in Federally Assisted Housing?” *Housing Spotlight*, 2, no. 2 (2012), accessed Sept. 10, 2014, <http://nlihc.org/sites/default/files/HousingSpotlight2-2.pdf>.
- ¹⁶⁴ “Picture of Subsidized Households,” U.S. Department of Housing and Urban Development.
- ¹⁶⁵ National Low Income Housing Coalition, “Who Lives in Federally Assisted Housing?”
- ¹⁶⁶ Center on Budget and Policy Priorities, “Policy Basics.”
- ¹⁶⁷ “Picture of Subsidized Households,” U.S. Department of Housing and Urban Development.
- ¹⁶⁸ Households with non-elderly people with disabilities could include, for example, single adults, families with children, married couples who are childless or have adult children at home, and adult relatives or nonrelatives sharing an apartment. Only households where the head of household or spouse of the head of household is a person with a disability would be eligible to live in designated housing.
- ¹⁶⁹ U.S. Department of Housing and Urban Development, *Worst Case Housing Needs 2011*. The 2009 to 2011 data were the most recent available at the time this HIA was being conducted. HUD released updated data in February 2015. For the updated figures, see U.S. Department of Housing and Urban Development, *Worst Case Housing Needs: 2015 Report to Congress—Executive Summary* (Washington: Author, 2015), accessed Feb. 20, 2015, http://www.huduser.org/portal/publications/affhsg/wc_HsgNeeds15.html.
- ¹⁷⁰ *Ibid.* The 2009 to 2011 data were the most recent available at the time this HIA was being conducted. HUD released updated data in February 2015. For the updated figures, see U.S. Department of Housing and Urban Development, *Worst Case Housing Needs: 2015 Report*.
- ¹⁷¹ *Ibid.*
- ¹⁷² U.S. Department of Housing and Urban Development, “Resources for Chronic Homelessness.”
- ¹⁷³ As defined by HUD, housing problems include: 1) housing unit lacks complete kitchen facilities, 2) housing unit lacks complete plumbing facilities, 3) household is overcrowded, and 4) household is cost burdened. A household is said to have a housing problem if it has any one or more of these four problems. See http://www.huduser.org/portal/datasets/cp/CHAS/bg_chas.html.
- ¹⁷⁴ As described in detail in Methods and Appendix C, the analysis of remaining demand has a number of limitations. Estimates of demand among non-elderly disabled households include inputs that may be upwardly biased and others that are downwardly biased.
- ¹⁷⁵ U.S. Department of Housing and Urban Development, *Worst Case Housing Needs 2011*.
- ¹⁷⁶ *Ibid.* The 2009 to 2011 data were the most recent available at the time this HIA was being conducted. HUD released updated data in February 2015. For the updated figures, see U.S. Department of Housing and Urban Development, *Worst Case Housing Needs: 2015 Report*.
- ¹⁷⁷ U.S. Department of Housing and Urban Development, “Resident Characteristics Report.” LIHTC projects are typically targeted to households at 50 percent to 60 percent of AMI and therefore do not serve very low-income households unless further subsidized by a Housing Choice Voucher. Including LIHTC in defining supply could suggest a greater supply than that which is actually accessible to very low-income households.
- ¹⁷⁸ It is worth noting that PHAs predominantly designate senior-only properties (91 percent of designated units). Given the rising unmet housing needs among non-elderly disabled households, a potentially promising source of “lessons learned” may be PHAs that designate properties for mixed populations.
- ¹⁷⁹ Burgard, Seefeldt, and Zelner, “Housing Instability and Health.”

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- ¹⁸⁰ Nord and Kantor, "Seasonal Variation in Food Insecurity"; National Energy Assistance Directors' Association, "National Energy Assistance Survey"; Palmieri and Greenhalgh, "Increased Incidence of Heater-Related Burn Injury"; Snyder and Baker, "Affordable Home Energy and Health"; She and Livermore, "Material Hardship"; Burgard, Seefeldt, and Zelner, "Housing Instability and Health."
- ¹⁸¹ J. Bhattacharya et al., "Heat or Eat? Cold-Weather Shocks and Nutrition in Poor American Families," *American Journal of Public Health* 93, no. 7 (Jul 2003): 1149–1154; D.A. Frank et al., "Heat or Eat: The Low Income Home Energy Assistance Program and Nutritional and Health Risks Among Children Less Than 3 Years of Age," *Pediatrics* 118, no. 5 (November 2006): e1293–1302; Nord and Kantor, "Seasonal Variation in Food Insecurity."
- ¹⁸² M.B. Kushel et al., "Housing Instability and Food Insecurity as Barriers to Health Care Among Low-Income Americans," *Journal of General Internal Medicine* 21, no. 1 (January 2006): 71–77.
- ¹⁸³ Snyder and Baker, "Affordable Home Energy and Health."
- ¹⁸⁴ B. Briesacher et al., "A New Measure of Medication Affordability," *Social Work in Public Health* 24, no. 6 (2009): 600–612.
- ¹⁸⁵ Palmieri and Greenhalgh, "Increased Incidence of Heater-Related Burn Injury."
- ¹⁸⁶ National Energy Assistance Directors' Association, "National Energy Assistance Survey" (2011).
- ¹⁸⁷ P. Howden-Chapman, "Housing Standards: A Glossary of Housing and Health," *Journal of Epidemiology and Community Health* 58, no. 3 (March 2004): 162–168.
- ¹⁸⁸ Snyder and Baker, "Affordable Home Energy and Health."
- ¹⁸⁹ Howden-Chapman, "Housing Standards"; Snyder and Baker, "Affordable Home Energy and Health."
- ¹⁹⁰ National Energy Assistance Directors' Association, "2005 National Energy Assistance Survey: Final Report" (2005), accessed Jan. 24, 2014, http://neada.org/wp-content/uploads/2013/03/survey2005-key_findings.pdf.
- ¹⁹¹ National Energy Assistance Directors' Association, "National Energy Assistance Survey" (2011).
- ¹⁹² She and Livermore, "Material Hardship."
- ¹⁹³ Ibid.
- ¹⁹⁴ Ibid.
- ¹⁹⁵ HUD defines "fair housing choice" as "the ability of persons, regardless of race, color, religion, sex, handicap, familial status, or national origin, of similar income levels to have available to them the same housing choices."
- ¹⁹⁶ U.S. Department of Housing and Urban Development, "FHEO Filed Cases."
- ¹⁹⁷ Ibid; U.S. Department of Housing and Urban Development, "The Status of Fair Housing."
- ¹⁹⁸ Office of Fair Housing and Equal Opportunity, U.S. Department of Housing and Urban Development, pers. comm., July 2013; U.S. Department of Housing and Urban Development and U.S. Department of Justice, "Reasonable Accommodations Under the Fair Housing Act" (2004), accessed July 22, 2014, <http://www.hud.gov/offices/fheo/library/huddojstatement.pdf>.
- ¹⁹⁹ M.A. Turner et al., *Discrimination Against Persons With Disabilities: Barriers at Every Step* (Washington: U.S. Department of Housing and Urban Development, 2005). The study used paired testing in Chicago to develop estimates of the incidence of discrimination against people with disabilities. Paired testing is a tool used to detect housing discrimination. In this process, two testers are carefully matched with equivalent social and economic characteristics, except for the characteristic being tested for discrimination. The individuals then seek housing in the private marketplace and observe and record differences in their treatment by race, disability status, or other factors.
- ²⁰⁰ A teletypewriter (TTY) allows people who are deaf or hard of hearing to use a telephone.
- ²⁰¹ Turner et al., *Discrimination Against Persons*.
- ²⁰² Ibid.
- ²⁰³ Ibid.
- ²⁰⁴ Ibid, 2.
- ²⁰⁵ S. Friedman et al., *An Estimate of Housing Discrimination Against Same-Sex Couples* (Washington: Department of Housing and Urban Development, Office of Policy Development and Research, 2013), accessed Aug. 6, 2014, http://www.huduser.org/portal/publications/pdf/Hsg_Disc_against_SameSexCpls_v3.pdf.
- ²⁰⁶ S. Addis et al., "The Health, Social Care, and Housing Needs of Lesbian, Gay, Bisexual, and Transgender Older People: A Review of the Literature," *Health and Social Care in the Community* 17, no. 6 (2009): 647–658.
- ²⁰⁷ Ibid.
- ²⁰⁸ Ibid.

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- ²⁰⁹ U.S. Department of Housing and Urban Development, “Dignity for Philadelphia’s Aging LGBT Pioneers,” *PD&R Edge*, accessed Mar. 6, 2014, http://www.huduser.org/portal/pdredge/pdr_edge_inpractice_021014.html.
- ²¹⁰ Shavers and Shavers, “Racism and Health Inequity.”
- ²¹¹ M.A. Turner et al., *Housing Discrimination Against Racial and Ethnic Minorities 2012* (Washington: U.S. Department of Housing and Urban Development, Office of Policy Development and Research, 2013), accessed Aug. 5, 2014, http://www.huduser.org/portal/Publications/pdf/HUD-514_HDS2012.pdf.
- ²¹² U.S. Department of Housing and Urban Development, “FHEO Filed Cases.”
- ²¹³ National Fair Housing Alliance, “Despite the Promise of the Fair Housing Act, the Rate of Housing Discrimination Remains High,” accessed June 13, 2014, http://www.nationalfairhousing.org/NationalCommission/FutureofFairHousingDiscriminationRate/tabid/3386/Default.aspx#_ednref76; National Commission on Fair Housing and Equal Opportunity, *The Future of Fair Housing: Report of the National Commission on Fair Housing and Equal Opportunity* (December 2008), accessed June 13, 2014, http://www.nationalfairhousing.org/Portals/33/reports/Future_of_Fair_Housing.PDF.
- ²¹⁴ U.S. Department of Housing and Urban Development, “FHEO Filed Cases.”
- ²¹⁵ F.W. Roisman, “Affirmatively Furthering Fair Housing in Regional Housing Markets: The Baltimore Public Housing Desegregation Litigation,” *Wake Forest Law Review* 42, no. 2 (2007): 333–390.
- ²¹⁶ U.S. Department of Justice, “City of Baltimore Agrees to Expand Housing for People With Disabilities,” *Disability Rights online News*, December 2004/January 2005, Issue 5, accessed July 22, 2014, <http://www.ada.gov/newsltr1204.pdf>; J. Stapleton, “Fair Housing Center Settles Federal Lawsuit,” *Connecticut Law Tribune* (2013), accessed July 22, 2014, http://www.ctfairhousing.org/wp-content/uploads/Crystal.Carter.Law_.Trib_.pdf; U.S. Department of Justice, “Justice Department Files Lawsuit Against Ruston, LA Public Housing Authority Alleging Race Discrimination in Housing Practices” (2013), accessed July 22, 2014, <http://www.justice.gov/opa/pr/2013/September/13-crt-1101.html>.
- ²¹⁷ U.S. Department of Justice, “City of Baltimore Agrees”; Stapleton, “Fair Housing Center Settles”; U.S. Department of Justice, “Justice Department Files Lawsuit.”
- ²¹⁸ See, for example, Boston Housing Authority, “Designated Housing Plan, Chapter 11: Court Orders, Lawsuits, Investigations, VCAs, and Section 504 Actions,” accessed July 22, 2014, <http://www.bostonhousing.org/en/Policies/Designated-Housing-Plan-Court-Orders,-Lawsuits,-In.aspx>, and U.S. Department of Housing and Urban Development, “Voluntary Compliance Agreement between HUD and the County of Marin” (2010), accessed July 22, 2014, <http://www.hud.gov/offices/fheo/library/10-Marin-VCA-final-12-21-2010.PDF>.
- ²¹⁹ Brondolo, Gallo, and Myers, “Race, Racism, and Health”; Williams and Mohammed, “Discrimination and Racial Disparities”; Paradies, “A Systematic Review of Empirical Research.”
- ²²⁰ Paradies, “A Systematic Review of Empirical Research.”
- ²²¹ A. Bahm and C. Forchuk, “Interlocking Oppressions: The Effect of a Comorbid Physical Disability on Perceived Stigma and Discrimination Among Mental Health Consumers in Canada,” *Health and Social Care in the Community* 17, no. 1 (2008): 63–70. Stigma is defined as “prejudice or negative stereotyping that represents the invalidating and poorly justified knowledge structures that result in discrimination.”
- ²²² Bahm and Forchuk, “Interlocking Oppressions.”
- ²²³ *Ibid.*
- ²²⁴ Shavers and Shavers, “Racism and Health Inequity.”
- ²²⁵ Williams and Mohammed, “Discrimination and Racial Disparities”; Shavers and Shavers, “Racism and Health Inequity.”
- ²²⁶ For a comprehensive list of federal policies aimed at decreasing housing discrimination and segregation, see the U.S. Department of Housing and Urban Development’s list of fair housing laws and presidential executive orders, accessed June 13, 2014, http://portal.hud.gov/hudportal/HUD?src=/program_offices/fair_housing_equal_opp/FHLaws.
- ²²⁷ U.S. Department of Justice, “Overview of Title VI of the Civil Rights Act of 1964,” accessed June 13, 2014, <http://www.justice.gov/crt/about/cor/coord/titlevi.php>.
- ²²⁸ U.S. Department of Housing and Urban Development, “Fair Housing Laws and Presidential Executive Orders,” accessed June 13, 2014, http://portal.hud.gov/hudportal/HUD?src=/program_offices/fair_housing_equal_opp/FHLaws.
- ²²⁹ Kanter, “A Home of One’s Own”; U.S. Department of Housing and Urban Development, “Statement of the Department of Housing and Urban Development on the Role of Housing.”

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- ²³⁰ U.S. Department of Housing and Urban Development, “Statement of the Department of Housing and Urban Development on the Role of Housing”; 24 C.F.R. §§ 8.4(d), 9.130(d), accessed June 13, 2014, <http://www.law.cornell.edu/cfr/text/24/8.4> and <http://www.law.cornell.edu/cfr/text/24/9.130>.
- ²³¹ Kanter, “A Home of One’s Own”; “Fair Housing Laws and Presidential Executive Orders,” U.S. Department of Housing and Urban Development; M.P. Seng, “Discrimination Against Families With Children and Handicapped Persons Under the 1988 Amendments to the Fair Housing Act,” *The John Marshall Law Review* 22 (1989): 541–566.
- ²³² 24 CFR § 100.204(a), accessed June 13, 2014, <http://www.law.cornell.edu/cfr/text/24/part-100/subpart-D>.
- ²³³ Allen, “Separate and Unequal.”
- ²³⁴ *Ibid.*; University of Michigan Law School, “Case Profile: Helen L. v. DiDario,” Civil Rights Litigation Clearinghouse (2012), accessed June 6, 2014, <http://www.clearinghouse.net/detail.php?id=12485>.
- ²³⁵ Allen, “Separate and Unequal.”
- ²³⁶ 56 Fed. Reg. 35694, 35705 (July 26, 1991); preamble to ADA Title II regulations, accessed June 6, 2014, http://www.ada.gov/regs2010/titleII_2010/titleII_2010_regulations.htm.
- ²³⁷ J. Pynoos et al., “Aging in Place, Housing, and the Law,” *The Elder Law Journal* 16, no. 1 (2008): 77–105; U.S. Department of Housing and Urban Development, “Statement of the Department of Housing and Urban Development on the Role of Housing”; *Olmstead v. L.C. ex. rel. Rimring* 527 U.S. 581 (1999), accessed Aug. 6, 2014, <http://www.law.cornell.edu/supct/html/98-536.ZS.html>.
- ²³⁸ U.S. Department of Housing and Urban Development, “Statement of the Department of Housing and Urban Development on the Role of Housing.”
- ²³⁹ Technical Assistance Collaborative, “Resource Center on Supportive Housing: Section 811 Program FAQs,” accessed June 2, 2014, <http://811resourcecenter.tacinc.org/policy-programs/section-811-program-faqs>.
- ²⁴⁰ See, for example, U.S. Department of Housing and Urban Development, “Statement of the Department of Housing and Urban Development on the Role of Housing in Accomplishing the Goals of *Olmstead*”; Department of Health and Human Services, Centers for Medicare and Medicaid Services, “Home and Community-Based Setting Requirements for Community First Choice and Home and Community-Based Services (HCBS) Waivers,” Fed. Reg. 79, no. 11 (Jan. 16, 2014), accessed Aug. 6, 2014, <http://www.gpo.gov/fdsys/pkg/FR-2014-01-16/pdf/2014-00487.pdf>.
- ²⁴¹ Single-purpose properties are properties where all of the units are exclusively set aside for people with disabilities.
- ²⁴² U.S. Department of Housing and Urban Development, *Public Housing Occupancy Guidebook*; Public and Assisted Housing Occupancy Task Force, *Report to Congress*.
- ²⁴³ Ann O’Hara and Stephen Day, *Olmstead and Supportive Housing: A Vision for the Future* (Hamilton, NJ: Center for Healthcare Strategies Inc., 2001), accessed Aug. 6, 2014, <http://www.tacinc.org/media/13054/Olmstead%20Supportive%20Housing.pdf>; R. Cohen, *Connecting Residents of Subsidized Housing With Mainstream Supportive Services: Challenges and Recommendations* (Washington: Center for Housing Policy, 2010), accessed Aug. 6, 2014, http://www.urban.org/UploadedPDF/1001490-Subsidized-Housing.pdf?RSSFeed=UI_CitiesandNeighborhoods.xml. Integrated housing refers to housing within community-based settings, as opposed to housing in segregated or institutionalized settings.
- ²⁴⁴ Cohen, *Connecting Residents*.
- ²⁴⁵ Lindsay Palmer and Stephen Somers, *Integrating Long-Term Care: Lessons From Building Health Systems for People With Chronic Illnesses, A National Program of The Robert Wood Johnson Foundation* (Trenton, NJ: Center for Healthcare Strategies Inc., 2005).
- ²⁴⁶ Cotrell and Carder, “Health-Related Needs Assessment.”
- ²⁴⁷ Kaiser Family Foundation, *Medicaid Home and Community Based-Services Programs: 2009 Data Update* (Washington: Kaiser Commission on Medicaid and the Uninsured, 2012).
- ²⁴⁸ Federal Interagency Forum on Aging-Related Statistics, *Older Americans 2012*.
- ²⁴⁹ G. Locke et al., *End of Participation in Assisted Housing: What Can We Learn About Aging in Place?* (Washington: U.S. Department of Housing and Urban Development, 2011).
- ²⁵⁰ Office of Policy Development and Research (HUD) and Office of Assistant Secretary for Planning and Evaluation (HHS), “Aging in Place: Facilitating Choice and Independence,” *Evidence Matters: Transforming Knowledge Into Housing and Community Development Policy* (2013), accessed Aug. 6, 2014, <http://www.huduser.org/portal/periodicals/em/fall13/highlight1.html>.

-
- ²⁵¹ Ibid.
- ²⁵² Locke et al., *End of Participation*.
- ²⁵³ Housing Capacity Building Initiative for Community Living, “Strategies for Creating Integrated Supportive Housing for People With Disabilities” (February 2013), accessed Aug. 6, 2014, <http://www.neweditions.net/housing/documents/StrategiesforCreatingIntegratedSupportiveHousingforPeoplewithDisabilities.pdf>. For example, as defined by Section 6071(b)(6) of the Deficit Reduction Act of 2005, which provides for the Money Follows the Person Demonstration Program, a “qualified residence” for an eligible individual is (i) a home owned or leased by the individual or the individual’s authorized representative; (ii) an apartment with an individual lease, with lockable access and egress, and which includes living, sleeping, bathing, and cooking areas over which the individual or the individual’s authorized representative has domain and control; or (iii) a residence, in a community-based residential setting (as defined by state and/or federal law), in which no more than four unrelated individuals reside.
- ²⁵⁴ U.S. Department of Housing and Urban Development, *2014–2018 HUD Strategic Plan*.
- ²⁵⁵ S.M. Golant, “Housing the Poor and Vulnerable Elderly,” *Shelterforce* (2000), accessed Aug. 20, 2014, <http://www.nhi.org/online/issues/109/golant.html>.
- ²⁵⁶ M.F. Harahan, A. Sanders, and R. Stone, *A Synthesis of Findings From the Study of Affordable Housing Plus Services for Low- and Modest-Income Older Adults* (HUD User / AAHSA, IFAS, 2006).
- ²⁵⁷ Corporation for Supportive Housing, “The State of the Supportive Housing Industry” (2011), Accessed Aug. 22, 2014, http://www.csh.org/wp-content/uploads/2011/12/Report_StateOfIndustry2011.pdf.
- ²⁵⁸ “Resident Opportunities and Self-Sufficiency Program,” U.S. Department of Housing and Urban Development, accessed Feb. 7, 2014, http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/ph/ross.
- ²⁵⁹ The Commission on Affordable Housing, *A Quiet Crisis in America*.
- ²⁶⁰ Locke et al., *End of Participation*.
- ²⁶¹ The Commission on Affordable Housing, *A Quiet Crisis in America*; Locke et al., *End of Participation*.
- ²⁶² The Commission on Affordable Housing, *A Quiet Crisis in America*.
- ²⁶³ C. Levine and A.R. Johns, *Multifamily Property Managers’ Satisfaction With Service Coordination* (Washington: U.S. Department of Housing and Urban Development, 2008), accessed March 12, 2014, http://www.huduser.org/portal/publications/hsgspec/serv_coord.html.
- ²⁶⁴ Ibid.
- ²⁶⁵ U.S. Department of Housing and Urban Development, “Homeless Assistance Program, Supportive Housing Program,” accessed Sept. 17, 2014, <https://www.hudexchange.info/homelessness-assistance>.
- ²⁶⁶ U.S. Department of Housing and Urban Development, Office of Housing Choice Vouchers, “Non-Elderly Disabled (NED) Vouchers,” accessed Nov. 12, 2013, http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/hcv/ned.
- ²⁶⁷ “Veterans Affairs Supportive Housing (VASH) Vouchers,” U.S. Department of Housing and Urban Development, Office of Housing Choice Vouchers, accessed Nov. 12, 2013, http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/hcv/vash.
- ²⁶⁸ Gibler, “Aging Subsidized Housing Residents.”
- ²⁶⁹ B.A. Haley and R.W. Gray, *Section 202 Supportive Housing for the Elderly: Program Status and Performance Measurement* (Washington: U.S. Department of Housing and Urban Development, 2008), accessed Aug. 6, 2014, http://www.huduser.org/portal/publications/sec_202_1.pdf.
- ²⁷⁰ T.P. Gilmer et al., “Effect of Full-Service Partnerships on Homelessness, Use and Costs of Mental Health Services, and Quality of Life Among Adults With Serious Mental Illness,” *Archives of General Psychiatry* 67, no. 6 (2010): 645–652; D.P. Culhane, S. Metraux, and T. Hadley, “Public Service Reductions Associated With Placement of Homeless Persons With Severe Mental Illness in Supportive Housing,” *Housing Policy Debates* 13, no. 1 (2002): 107–163; M.E. Larimer et al., “Health Care and Public Service Use and Costs Before and After Provision of Housing for Chronically Homeless Persons With Severe Alcohol Problems,” *JAMA* 301, no. 13 (2009): 1349–1357; E.R. Kessell et al., “Public Health Care Utilization in a Cohort of Homeless Adult Applicants to a Supportive Housing Program,” *Journal of Urban Health* 83, no. 5 (2006): 860–873; Wong et al., *Predicting Staying In or Leaving Permanent Supportive Housing That Serves Homeless People With Serious Mental Illness* (Washington: U.S. Department of Housing and Urban Development, 2006), accessed Aug. 12, 2014, <http://www.huduser.org/Publications/pdf/permhsgstudy.pdf>.

- ²⁷¹ K.S. Thomas and V. Mor, "The Relationship Between Older Americans Act Title III State Expenditures and Prevalence of Low-Care Nursing Home Residents," *Health Services Research* 48, no. 3 (2013): 1215–1226.
- ²⁷² Y.-M. Chen and E. Thompson, "Understanding Factors That Influence Success of Home- and Community-Based Services in Keeping Older Adults in Community Settings," *Journal of Aging and Health* 22, no. 3 (2010): 267–291.
- ²⁷³ J. Sylvestre et al., "Housing for People With Serious Mental Illness: A Comparison of Values and Research," *American Journal of Community Psychology* 40, no. 1–2 (2007): 125–137; E.S. Rogers et al., *Systematic Review of Supported Housing Literature, 1993–2008* (Boston: Boston University, Sargent College, Center for Psychiatric Rehabilitation, 2009), accessed Jan. 3, 2014, <http://open.bu.edu/xmlui/handle/2144/1493>.
- ²⁷⁴ M.J. O'Connell, W. Kaspro, and R.A. Rosenheck, "Rates and Risk Factors for Homelessness After Successful Housing in a Sample of Formerly Homeless Veterans," *Psychiatric Services* 59, no. 3 (2008): 268–275.
- ²⁷⁵ S.E. Collins et al., "Project-Based Housing First for Chronically Homeless Individuals With Alcohol Problems: Within-Subjects Analyses of 2-Year Alcohol Trajectories," *American Journal of Public Health* 102, no. 3 (2012): 511–519.
- ²⁷⁶ D. Buchanan et al., "The Health Impact of Supportive Housing for HIV-Positive Homeless Patients: A Randomized Controlled Trial," *American Journal of Public Health* 99, Suppl. 3 (2009): S675–S680.
- ²⁷⁷ *Ibid.*
- ²⁷⁸ J. Lubell, R. Crain, and R. Cohen, *Framing the Issues: The Positive Impacts of Affordable Housing on Health* (Washington: Center for Housing Policy, 2007), accessed Aug. 14, 2014, http://www.nhc.org/media/documents/FramingIssues_Health.pdf; A.A. Aidala et al., "Housing Need, Housing Assistance, and Connection to HIV Medical Care," *AIDS and Behavior* 11 (2007): S101–S115.
- ²⁷⁹ "Summit on Aging in Place in Public Housing," Enterprise Community Partners Inc., LeadingAge, 2011, accessed Aug. 5, 2014, http://www.leadingage.org/uploadedFiles/Content/About/Center_for_Applied_Research/Expanding_Affordable_Housing_Plus_Services/Public_Housing_Authority_Summit.pdf; R.C. Ficke and S.G. Berkowitz, *Evaluation of the HOPE for Elderly Independence Demonstration Program and the New Congregate Housing Services Program: Report to Congress* (Washington: U.S. Department of Housing and Urban Development, 2000), accessed Aug. 6, 2014, <http://www.huduser.org/portal/Publications/pdf/HUD%20-%2011053.pdf>.
- ²⁸⁰ T. Kyle and J.R. Dunn, "Effects of Housing Circumstances on Health, Quality of Life, and Healthcare Use for People With Severe Mental Illness: A Review," *Health and Social Care in Community* 16, no. 1 (2008): 1–15; Gilmer et al., "Effect of Full-Service Partnerships"; S.W. Hwang et al., "Health Status, Quality of Life, Residential Stability, Substance Use, and Health Care Utilization Among Adults Applying to a Supportive Housing Program," *Journal of Urban Health* 88, no. 6 (2011): 1076–1090.
- ²⁸¹ R.M. Greenwood et al., "Decreasing Psychiatric Symptoms by Increasing Choice in Services for Adults With Histories of Homelessness," *American Journal of Community Psychology* 36, no. 3–4 (2005): 223–238; Kyle and Dunn, "Effects of Housing Circumstances."
- ²⁸² G. Nelson et al., "A Narrative Approach to the Evaluation of Supportive Housing: Stories of Homeless People Who Have Experienced Serious Mental Illness," *Psychiatric Rehab* 29, no. 2 (2005) 98–104.
- ²⁸³ Kaiser Family Foundation, Kaiser Commission on Medicaid and the Uninsured, *Money Follows the Person: A 2012 Survey of Transitions, Services and Costs* (Washington: Author, 2013); C.V. Irvin et al., *Money Follows the Person 2012 Annual Report* (Cambridge, MA: Mathematica Policy Research, 2013); P. Chatterji et al., *Evaluation of the Program of All-Inclusive Care for the Elderly (PACE) Demonstration: The Impact of PACE on Participant Outcomes* (Cambridge, MA: Abt Associates Inc., 1998).
- ²⁸⁴ Kaiser Family Foundation, *Money Follows the Person*; Irvin et al., *Money Follows the Person*.
- ²⁸⁵ H.S. Kaye, M.P. LaPlante, and C. Harrington, "Do Non-institutional Long-Term Care Services Reduce Medicaid Spending?" *Health Affairs* 28, no. 1 (2009): 262–272, accessed Aug. 5, 2014, <http://content.healthaffairs.org/content/28/1/262.full>.
- ²⁸⁶ Office of Policy Development and Research, "Aging in Place."
- ²⁸⁷ W. Fox-Grage and J. Walls, *State Studies Find Home and Community-Based Services to Be Cost-Effective* (Washington: AARP Public Policy Institute, 2013), accessed Aug. 5, 2014, http://www.aarp.org/content/dam/aarp/research/public_policy_institute/ltc/2013/state-studies-find-hcbs-cost-effective-spotlight-AARP-ppi-ltc.pdf.
- ²⁸⁸ Irvin et al., *Money Follows the Person*.

-
- ²⁸⁹ Economic Policy Program, Housing Commission, *Housing America's Future: New Directions for National Policy* (Washington: Bipartisan Policy Center, 2013); Culhane et al., "Public Service Reductions"; D.R. Holtgrave et al., "Cost and Threshold Analysis of Housing as an HIV Prevention Intervention," *AIDS and Behavior* 11 (2007): S162–S166; A. Aidala et al., *Frequent Users Service Enhancement "FUSE" Initiative: New York City FUSE II Evaluation Report* (New York: Columbia University Mailman School of Public Health, 2013), accessed Dec. 31, 2013, http://www.csh.org/wp-content/uploads/2013/12/FUSE_Eval_Report_Final.pdf; D. Flaming et al., *Getting Home: Outcomes From Housing High Cost Homeless Hospital Patients* (Corporation for Supportive Housing and Economic Roundtable, 2013).
- ²⁹⁰ Larimer et al., "Health Care and Public Service Use and Costs."
- ²⁹¹ Ibid.
- ²⁹² Flaming et al., *Getting Home*.
- ²⁹³ Culhane et al., "Public Service Reductions."
- ²⁹⁴ Gilmer et al., "Effect of Full-Service Partnerships."
- ²⁹⁵ Ibid.
- ²⁹⁶ Kessell et al., "Public Health Care Utilization."
- ²⁹⁷ E.S. Casper and D. Clark, "Service Utilization, Incidents, and Hospitalizations Among People With Mental Illnesses and Incarceration Histories in a Supportive Housing Program," *Psychiatric Rehabilitation* 28 (2004): 181–184.
- ²⁹⁸ RTI International and LeadingAge, *Support and Services at Home (SASH) Evaluation: First Annual Report* (Washington: U.S. Department of Health and Human Services, September 2014), accessed May 28, 2015, <http://aspe.hhs.gov/daltcp/reports/2014/sash1.cfm>.
- ²⁹⁹ Ibid.
- ³⁰⁰ Ibid.
- ³⁰¹ Housing Capacity Building Initiative for Community Living, "Welcome Page," accessed July 14, 2014, <http://neweditions.net/housing/index.asp>; "Home & Community-Based Services," U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services, accessed July 14, 2014, <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Long-Term-Services-and-Support/Home-and-Community-Based-Services/Home-and-Community-Based-Services.html>; U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services, "Money Follows the Person (MFP)," accessed July 14, 2014, <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Long-Term-Services-and-Support/Balancing/Money-Follows-the-Person.html>; "Program of All-Inclusive Care of the Elderly," U.S. Department of Health and Human Services, Center for Medicare and Medicaid Services, accessed July 14, 2014, <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Long-Term-Services-and-Support/Integrating-Care/Program-of-All-Inclusive-Care-for-the-Elderly-PACE/Program-of-All-Inclusive-Care-for-the-Elderly-PACE.html>.
- ³⁰² U.S. Department of Health and Human Services, Health Resources and Services Administration, "Primary Care; Special Populations (Public Housing Programs)," accessed July 16, 2014, <http://bphc.hrsa.gov/qualityimprovement/supportnetworks/specialpopulations/>.
- ³⁰³ Palmer and Somers, Integrating Long-Term Care.
- ³⁰⁴ For example, home health aides, case management, personal care services, and adult day health services.
- ³⁰⁵ Kaiser Family Foundation, *Medicaid Home*.
- ³⁰⁶ Ibid.
- ³⁰⁷ Ibid.
- ³⁰⁸ U.S. Department of Health and Human Services, "Money Follows the Person (MFP)."
- ³⁰⁹ Irvin et al., Money Follows the Person.
- ³¹⁰ Ibid.; Kaiser Family Foundation, *Money Follows the Person*.
- ³¹¹ Kaiser Family Foundation, *Money Follows the Person*.
- ³¹² Housing Capacity Building Initiative for Community Living, "Strategies for Creating Integrated Supportive Housing"; Kaiser Family Foundation, *Money Follows the Person*.
- ³¹³ U.S. Department of Housing and Urban Development, "Statement of the Department of Housing and Urban Development on the Role of Housing."
- ³¹⁴ Kaiser Family Foundation, *Money Follows the Person*.
- ³¹⁵ Ibid.

-
- ³¹⁶ U.S. Department of Health and Human Services, "Program of All-Inclusive Care of the Elderly."
- ³¹⁷ The Commission on Affordable Housing, *A Quiet Crisis in America*.
- ³¹⁸ Cambridge Housing Authority, *Cambridge Housing Authority 2015 Annual Plan*, accessed June 9, 2015, <http://www.cambridge-housing.org/civicax/filebank/blobdload.aspx?BlobID=22922>.
- ³¹⁹ U.S. Department of Health and Human Services, Health Resources and Services Administration, "What Are FQHCs?" accessed July 9, 2014, <http://www.hrsa.gov/healthit/toolbox/RuralHealthITtoolbox/Introduction/qualified.html>.
- ³²⁰ Focus groups with PHA leadership and staff.
- ³²¹ M.R. Talen and A. Burke Valeras, eds., *Integrated Behavioral Health in Primary Care: Evaluating the Evidence, Identifying the Essentials* (New York: Springer Science+Business Media, 2013).
- ³²² "Crossing the Quality Chasm: Adaptation to Mental Health and Addictive Disorders," Institute of Medicine, accessed Oct. 10, 2014, <http://www.iom.edu/Activities/Quality/MHQualityChasm.aspx>; Institute of Medicine, *Improving the Quality of Health Care for Mental and Substance-Use Conditions: Quality Chasm Series* (Washington: The National Academies Press, 2005), Oct. 10, 2014, <http://www.iom.edu/Reports/2005/Improving-the-Quality-of-Health-Care-for-Mental-and-Substance-Use-Conditions-Quality-Chasm-Series.aspx>.
- ³²³ Talen and Burke Valeras, *Integrated Behavioral Health*.
- ³²⁴ M.F. Harahan, A. Sanders, and R. Stone, *Inventory of Affordable Housing Plus Services Initiatives for Low- and Moderate-Income Seniors* (HUD User / AAHSA, IFAS, 2007); Milbank Memorial Fund and the Council of Large Public Housing Authorities, *Public Housing and Supportive Services for the Frail Elderly: A Guide for Housing Authorities and Their Collaborators* (Author, 2006).
- ³²⁵ Harahan et al., *Inventory of Affordable Housing*; Milbank Memorial Fund and the Council of Large Public Housing Authorities, *Public Housing and Supportive Services*.
- ³²⁶ Harahan et al., *A Synthesis of Findings*.
- ³²⁷ N. Dahan-Oliel, I. Gélinas, and B. Mazer, "Social Participation in the Elderly: What Does the Literature Tell Us?" *Critical Reviews in Physical and Rehabilitation Medicine* 20, no. 2 (2008): 159–176.
- ³²⁸ L. Fratiglioni, S. Paillard-Borg, and B. Winblad, "An Active and Socially Integrated Lifestyle in Late Life Might Protect Against Dementia," *The Lancet* 3, no. 6 (2004): 343–353.
- ³²⁹ Connecticut General Assembly, Legislative Program Review and Investigations Committee, *Mixing Populations in State Elderly/Disabled Housing Projects* (2004), staff briefing, accessed Feb. 5, 2014, http://www.cga.ct.gov/2004/pridata/Studies/pdf/Housing_Populations_Final_Report.pdf.
- ³³⁰ B.S. McEwen, "Stress, Adaptation, and Disease: Allostasis and Allostatic Load," *Annals of the New York Academy of Sciences* 840 (1998): 33–44; Julie Robison et al., "Mental Health in Senior Housing: Racial/Ethnic Patterns and Correlates of Major Depressive Disorder," *Aging & Mental Health* 13, no. 5 (2009): 659–673, doi:10.1080/13607860802607298.
- ³³¹ S. Egarter, P. Braveman, and C. Barclay, "How Social Factors Shape Health: Stress and Health," Robert Wood Johnson Foundation, March 2011, accessed Oct. 10, 2014, <http://www.rwjf.org/en/research-publications/find-rwjf-research/2011/03/how-social-factors-shape-health.html>; E. Brunner, "Stress and the Biology of Inequality," *British Medical Journal*, 314 (1997): 1472–1476.
- ³³² B.S. McEwen, "The Neurobiology of Stress: From Serendipity to Clinical Relevance," *Brain Research* 886, no. 1–2 (2000): 172–189.
- ³³³ B.K. Scarborough et al., "Assessing the Relationship Between Individual Characteristics, Neighborhood Context, and Fear of Crime," *Journal of Criminal Justice* 38 (2010): 819–826; Terrence Hill and Ronald Angel, "Neighborhood Disorder, Psychological Distress, and Heavy Drinking," *Social Science & Medicine* 61 (2005): 965–975.
- ³³⁴ In 1992, younger people with disabilities were eligible to live in senior housing units.
- ³³⁵ U.S. Government Accountability Office, *Public Housing*.
- ³³⁶ N.W. Sheehan and C. Stelle, "The Mixed-Population Issue in State-Subsidized Elderly Housing: Management Problems Posed by Non-Elderly and Elderly Tenants," *Journal of Aging and Social Policy* 10 (1998).
- ³³⁷ *Ibid.*
- ³³⁸ Connecticut General Assembly, Legislative Program Review and Investigations Committee, *Mixing Populations*.
- ³³⁹ Office of Public and Indian Housing, Notice PIH 2005-2 (HA), Jan. 5, 2005, accessed Aug. 6, 2014, http://portal.hud.gov/hudportal/documents/huddoc?id=DOC_8096.pdf.

-
- ³⁴⁰ U.S. Access Board, “Uniform Federal Accessibility Standards (UFAS),” accessed July 25, 2014, <http://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-aba-standards/background/ufas#3.5>.
- ³⁴¹ U.S. Department of Housing and Urban Development, “Section 504 Frequently Asked Questions,” accessed July 25, 2014, http://portal.hud.gov/hudportal/HUD?src=/program_offices/fair_housing_equal_opp/disabilities/sect504faq.
- ³⁴² Ibid.
- ³⁴³ U.S. Department of Housing and Urban Development, Office of Policy Development and Research, *Multifamily Building Conformance With the Fair Housing Accessibility Guidelines* (Washington: Author, 2003), <http://www.huduser.org/portal/Publications/pdf/multifamily.pdf>.
- ³⁴⁴ “The Principles of Universal Design,” Center for Universal Design (2011), http://www.ncsu.edu/ncsu/design/cud/about_ud/udprinciples.htm.
- ³⁴⁵ Froehlich-Grobe et al., “Physical Access in Urban Public Housing Facilities.”
- ³⁴⁶ U.S. Department of Housing and Urban Development, *Multifamily Building Conformance*.
- ³⁴⁷ Smith et al., “Aging and Disability.”
- ³⁴⁸ Turner et al., Discrimination Against Persons.
- ³⁴⁹ Smith et al., “Aging and Disability.”
- ³⁵⁰ Ibid.
- ³⁵¹ U.S. Department of Housing and Urban Development and U.S. Department of Justice, “Reasonable Accommodations.”
- ³⁵² These data were provided by the Cambridge Housing Authority in Massachusetts and represent Section 504 reasonable accommodation requests received between September 2013 and February 2014.
- ³⁵³ U.S. Department of Housing and Urban Development, “HOPE VI,” accessed Nov. 6, 2014, http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/ph/hope6; U.S. Department of Housing and Urban Development, “Choice Neighborhoods,” accessed Nov. 6, 2014, http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/ph/cn.
- ³⁵⁴ U.S. Department of Housing and Urban Development, Office of Healthcare Programs, Section 232 Mortgage Insurance for Residential Care Facilities program, accessed Nov. 6, 2014, http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration/healthcare_facilities.
- ³⁵⁵ U.S. Department of Housing and Urban Development, Public Housing Capital Fund, accessed Nov. 6, 2014, <http://portal.hud.gov/hudportal/HUD?src=/hudprograms/phcapfund>.
- ³⁵⁶ On Jan. 17, 2014, President Obama signed the bipartisan omnibus appropriations bill—H.R. 3547, the Consolidated Appropriations Act, 2014 (Public Law No: 113-76)—which funded the federal government for fiscal year 2014, accessed March 12, 2014, http://www.clpha.org/uploads/2014_Reports/1-14-14HR3547-FY14ConsolidatedAppropsAct-HsgText.pdf.
- ³⁵⁷ U.S. Department of Housing and Urban Development, *Public and Indian Housing, Public Housing Capital Fund: 2014 Summary Statement and Initiatives*, accessed Feb. 11, 2015, <http://portal.hud.gov/hudportal/documents/huddoc?id=PHCAPFUND.pdf>.
- ³⁵⁸ Gibson et al., “Housing and Health Inequalities: A Synthesis of Systematic Reviews of Interventions Aimed at Different Pathways Linking Housing and Health,” *Health & Place* 17, no. 1 (2011): 175–184; Mary Alison Durand et al., “Perceptions of Tap Water Temperatures, Scald Risk, and Prevention Among Parents and Older People in Social Housing: A Qualitative Study,” *Burns: Journal of the International Society for Burn Injuries* 38, no. 4 (June 2012): 585–590, doi:10.1016/j.burns.2011.10.009; Ginger L. Chew et al., “Determinants of Cockroach and Mouse Exposure and Associations With Asthma in Families and Elderly Individuals Living in New York City Public Housing,” *Annals of Allergy, Asthma & Immunology: Official Publication of the American College of Allergy, Asthma, & Immunology* 97, no. 4 (October 2006): 502–513, doi:10.1016/S1081-1206(10)60942-8.
- ³⁵⁹ Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, “WISQARS: 10 Leading Causes of Injury Deaths by Age Group Highlighting Unintentional Injury Deaths, United States 2010” (2010), accessed Jan. 30, 2014, http://www.cdc.gov/injury/wisqars/pdf/10LCID_Unintentional_Deaths_2010-a.pdf.
- ³⁶⁰ Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, “WISQARS: 10 Leading Causes of Nonfatal Unintentional Injury, United States 2012, All Races, Both Sexes, Disposition: All Cases” (2012), accessed Jan. 30, 2014, <http://webappa.cdc.gov/cgi-bin/broker.exe>; “Falls Among Older Adults: An Overview,” Centers for Disease Control and Prevention.

- ³⁶¹ D.A. Sterling, J.A. O'Connor, and J. Bonadies, "Geriatric Falls: Injury Severity Is High and Disproportionate to Mechanism," *Journal of Trauma–Injury, Infection, and Critical Care* 50, no. 1 (2001): 116–119; B.H. Alexander, F.P. Rivara, and M.E. Wolf, "The Cost and Frequency of Hospitalization for Fall-Related Injuries in Older Adults," *American Journal of Public Health* 82, no. 7 (1992): 1020–1023.
- ³⁶² B.J. Vellas et al., "Fear of Falling and Restriction of Mobility in Elderly Fallers," *Age and Ageing* 26 (1997): 189–193.
- ³⁶³ J.C. Scott, "Osteoporosis and Hip Fractures," *Rheumatic Diseases Clinics of North America* 16, no. 3 (1990): 717–740.
- ³⁶⁴ "Falls Among Older Adults: An Overview," Centers for Disease Control and Prevention.
- ³⁶⁵ Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, "WISQARS: 20 Leading Causes of Nonfatal Unintentional Injury, United States 2012, All Races, Both Sexes, Disposition: All Cases" (2012), accessed Jan. 30, 2014, <http://webappa.cdc.gov/cgi-bin/broker.exe>.
- ³⁶⁶ Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, "WISQARS: 20 Leading Causes of Unintentional Injury Deaths, United States 2010, All Races, Both Sexes, Disposition: All Cases" (2010), accessed Jan. 30, 2014, <http://webappa.cdc.gov/cgi-bin/broker.exe>.
- ³⁶⁷ D. Bishai and S Lee, "Heightened Risk of Fire Deaths Among Older African Americans and Native Americans," *Public Health Reports* 125 (2010): 406–413, accessed Jan. 31, 2014, <http://europepmc.org/articles/PMC2848265?pdf=render>.
- ³⁶⁸ Center for Universal Design, "The Principles of Universal Design."
- ³⁶⁹ Centers for Disease Control and Prevention, "Falls Among Older Adults: An Overview"; Lyons et al., "Modification of the Home Environment."
- ³⁷⁰ David E. Jacobs and Andrea Baeder, *Housing Interventions and Health: A Review of the Evidence* (Columbia, MD: National Center for Healthy Housing, 2009), accessed Mar. 12, 2014, <http://www.nchh.org/Portals/0/Contents/Housing%20Interventions%20and%20Health.pdf>; Center for Universal Design, "The Principles of Universal Design."
- ³⁷¹ Locke et al., *End of Participation*; C. Leibrock, and S. Behar, *Beautiful Barrier-Free: A Visual Guide to Accessibility* (New York: Van Nostrand Reinhold, 1993); Emily Salomon, "Expanding Implementation of Universal Design and Visitability Features in the Housing Stock," AARP Public Policy Institute (2010), accessed Mar. 18, 2014, <http://assets.aarp.org/rgcenter/ppi/liv-com/fs167-expanding-implementation.pdf>.
- ³⁷² C. Casteel and C. Peek-Asa, "Effectiveness of Crime Prevention Through Environmental Design (CPTED) in Reducing Robberies," *American Journal of Preventive Medicine* 18, no. 4 (2000): 99–115; N. Castells, "HOPE VI Neighborhood Spillover Effects in Baltimore," *Cityscape* 12, no. 1 (2010): 65–98, accessed Aug. 6, 2014, <http://www.huduser.org/periodicals/cityscpe/vol12num1/ch3.pdf>.
- ³⁷³ T. Hancock, "People, Partnerships, and Human Progress: Building Community Capital," *Health Promotion International* 16 (2001): 275–280.
- ³⁷⁴ C.R. Bhat and J.Y. Guo, "A Comprehensive Analysis of Built Environmental Characteristics on Household Residential Choice and Auto Ownership Levels," *Transportation Research B* 41 (2007): 506–526.
- ³⁷⁵ Physical Activity Guidelines Advisory Committee, *Physical Activity Guidelines Advisory Committee Report, 2008* (Washington: U.S. Department of Health and Human Services, 2008), accessed Feb. 19, 2014, <http://www.health.gov/paguidelines/report/pdf/committeereport.pdf>.
- ³⁷⁶ Matthew P. Buman et al., "The Stanford Healthy Neighborhood Discovery Tool: A Computerized Tool to Assess Active Living Environments," *American Journal of Preventive Medicine* 44, no. 4 (April 2013): e41–47, doi:10.1016/j.amepre.2012.11.028; Vivian W. Siu et al., "Built Environment and Its Influences on Walking Among Older Women: Use of Standardized Geographic Units to Define Urban Forms," *Journal of Environmental and Public Health* 2012 (2012): article ID 203141, doi:10.1155/2012/203141.
- ³⁷⁷ Jacqueline Kerr et al., "Outdoor Physical Activity and Self-Rated Health in Older Adults Living in Two Regions of the U.S.," *The International Journal of Behavioral Nutrition and Physical Activity* 9 (2012): 89, doi:10.1186/1479-5868-9-89.
- ³⁷⁸ Michael Spivock et al., "Promoting Active Living Among People With Physical Disabilities: Evidence for Neighborhood-Level Buys," *American Journal of Preventive Medicine* 34, no. 4 (April 2008): 291–298, doi:10.1016/j.amepre.2008.01.012; Michael Spivock, Lise Gauvin, and Jean-Marc Brodeur, "Neighborhood-Level Active Living Buys for Individuals With Physical Disabilities," *American Journal of Preventive Medicine* 32, no. 3 (March 2007): 224–230, doi:10.1016/j.amepre.2006.11.006.

- ³⁷⁹ Buman et al., "The Stanford Healthy Neighborhood Discovery Tool"; Amanda J. Lehning, "City Governments and Aging in Place: Community Design, Transportation, and Housing Innovation Adoption," *The Gerontologist* 52, no. 3 (June 2012): 345–356.
- ³⁸⁰ Lawrence Frank et al., "Healthy Aging and Where You Live: Community Design Relationships With Physical Activity and Body Weight in Older Americans," *Journal of Physical Activity & Health* 7, Suppl. 1 (March 2010): S82–S90.
- ³⁸¹ Corinne E. Kirchner, Elaine G. Gerber, and Brooke C. Smith, "Designed to Deter: Community Barriers to Physical Activity for People With Visual or Motor Impairments," *American Journal of Preventive Medicine* 34, no. 4 (April 2008): 349–352, doi:10.1016/j.amepre.2008.01.005.
- ³⁸² Philippa Clarke et al., "Mobility Disability and the Urban Built Environment," *American Journal of Epidemiology* 168, no. 5 (Sept. 1, 2008): 506–513, doi:10.1093/aje/kwn185.
- ³⁸³ Daniel K. White et al., "Are Features of the Neighborhood Environment Associated With Disability in Older Adults?" *Disability and Rehabilitation* 32, no. 8 (2010): 639–645, doi:10.3109/09638280903254547.
- ³⁸⁴ Ibid.
- ³⁸⁵ Tamara Dubowitz et al., "The Women's Health Initiative: The Food Environment, Neighborhood Socioeconomic Status, BMI, and Blood Pressure," *Obesity* 20, no. 4 (April 2012): 862–871, doi:10.1038/oby.2011.141.
- ³⁸⁶ Alicia L. Carbaugh, Risa Elias, and Diane Rowland, "Aid to People With Disabilities: Medicaid's Growing Role," *Annual Review of Public Health* 27 (2006): 417–442.
- ³⁸⁷ Locke et al., End of Participation.
- ³⁸⁸ J.A. Malmgren, M.L. Martin, and R.M. Nicola, "Health Care Access of Poverty-Level Older Adults in Subsidized Public Housing," *Public Health Reports* 111, no. 3 (1996): 260–263.
- ³⁸⁹ M. Ko and N.A. Ponce, "Community Residential Segregation and the Local Supply of Federally Qualified Health Centers," *Health Services Research* 48, no. 1 (2012): 253–270.
- ³⁹⁰ Ibid.
- ³⁹¹ Ibid.
- ³⁹² Ibid.
- ³⁹³ D.R. Williams and Jackson P. Braboy, "Social Sources of Racial Disparities in Health," *Health Affairs* 24, no. 2 (2005): 325–334, doi: 10.1377/hlthaff.24.2.325; James S. House and David R. Williams, "Understanding and Reducing Socioeconomic and Racial/Ethnic Disparities in Health," in *Promoting Health: Intervention Strategies From Social and Behavioral Research*, eds. Brian D. Smedley and S. Leonard Syme (Washington: National Academy Press, 2000), 81–124.
- ³⁹⁴ Williams and Braboy, "Social Sources Of Racial Disparities."
- ³⁹⁵ Ibid.
- ³⁹⁶ M.R. Kramer and C.R. Hogue, "Is Segregation Bad for Your Health?" *Epidemiologic Reviews* 31 (2009): 178–194; J.J. Sudano et al., "Neighborhood Racial Residential Segregation and Changes in Health or Death Among Older Adults," *Health and Place* 19 (2013): 80–88; Vicki A. Freedman, Irina B. Grafova, and Jeannette Rogowski, "Neighborhoods and Chronic Disease Onset in Later Life," *American Journal of Public Health* 101, no. 1 (2011): 79–86.
- ³⁹⁷ J.T. Chen et al., "Mapping and Measuring Social Disparities in Premature Mortality: The Impact of Census Tract Poverty Within and Across Boston Neighborhoods, 1999–2001," *Journal of Urban Health* 83, no. 6 (2006): 1063–1084.
- ³⁹⁸ A. Schulz et al., "Unfair Treatment, Neighborhood Effects, and Mental Health in the Detroit Metropolitan Area," *Journal of Health and Social Behavior* 41, no. 3 (2000): 314–332, <http://www.jstor.org/stable/2676323>.
- ³⁹⁹ C.S. Aneshensel et al., "The Urban Neighborhood and Cognitive Functioning in Late Middle Age," *Journal of Health and Social Behavior* 52, no. 2 (2011): 163–179.
- ⁴⁰⁰ Ibid.
- ⁴⁰¹ Kramer and Hogue, "Is Segregation Bad?"
- ⁴⁰² Sudano et al., "Neighborhood Racial Residential Segregation."
- ⁴⁰³ As described in Methods and Appendix C, the HIA team used the April 11, 2014, HUD Designated Housing Status Report data and the HUD geospatial database for PHA properties. The team linked these data sets by their PHA code to identify housing authorities that have HUD approval to use the designated housing rule. For both PHAs with an active designated housing plan and PHAs without an active designated housing plan, the team defined properties as (1) *senior-only* if they are properties with ≥ 75 percent one-bedroom units and have residents who are predominantly (≥ 75 percent of residents) seniors or near-elderly (ages 51 and older) and (2) *mixed or disabled-only* if they are properties with ≥ 75 percent one-

bedroom units, where fewer than 75 percent of residents are seniors or near-elderly (ages 51 and older), and where residents younger than 62 are predominantly disabled (≥ 80 percent of residents). Neighborhoods are defined as census block groups or tracts that intersect a half-mile buffer around PHA properties.

⁴⁰⁴ This analysis is therefore limited to those PHAs that have both elderly and disabled residents. This resulted in the removal of 222 PHAs, 3.2 percent of all PHAs.

⁴⁰⁵ For this analysis, a neighborhood is defined as the census block groups or tracts that intersect a half-mile buffer around PHA buildings.

⁴⁰⁶ Racially/Ethnically Concentrated Areas of Poverty (RCAPs/ECAPs) are census tracts with a nonwhite population of 50 percent or more and with 40 percent or more of individuals living at or below the poverty line. Because overall poverty levels are much lower in many parts of the country, HUD supplements this with an alternate criterion. Thus, a neighborhood can be an RCAP/ECAP if it has a poverty rate that exceeds 40 percent or is three times the average tract poverty rate for the metro/micro area, whichever threshold is lower.

⁴⁰⁷ The half-mile buffer used for the analysis could be an overestimate of walking distances typically covered by senior or disabled residents.

⁴⁰⁸ M. Stafford, T. Chandola, and M. Marmot, "Association Between Fear of Crime and Mental Health and Physical Functioning," *American Journal of Public Health* 97, no. 11 (2007): 2076–2081; T. Lorenc et al., "Environmental Interventions to Reduce Fear of Crime: Systematic Review of Effectiveness," *Systematic Review* 2, no. 30 (2013).

⁴⁰⁹ HUD Geospatial Data and Map Services, "Assisted Housing Properties"; U.S. Department of Health and Human Services Health Resources and Services Administration Data Warehouse, accessed March 5, 2014, <http://datawarehouse.hrsa.gov/>.

⁴¹⁰ U.S. Government Accountability Office, *Public Housing*; Sheehan and Stelle, "The Mixed-Population Issue"; Connecticut General Assembly, Legislative Program Review and Investigations Committee, *Mixing Populations*.

⁴¹¹ SET Ministry, "How We Do It," accessed April 3, 2015, <http://www.setinc.org/SET/How-We-Do-It.htm>.

⁴¹² This rule stated that ongoing costs for security personnel cannot be covered through capital funds, but PHAs can transfer some of these funds to operations and can use capital expenditures to enhance safety, such as through investments in Crime Prevention through Environmental Design approaches. See, for example, D. Zahm, *Using Crime Prevention Through Environmental Design in Problem-Solving* (Washington: U.S. Department of Justice, 2007), accessed June 12, 2015, <http://www.popcenter.org/tools/pdfs/cpted.pdf>.

⁴¹³ U.S. Department of Housing and Urban Development, "Designated Housing Plan Frequently Asked Questions."

⁴¹⁴ Estimates based on U.S. Department of Housing and Urban Development, "Picture of Subsidized Households." The HIA team calculated the number of households where the head of household or spouse (whoever is older) is 62 or older. The team then applied the percentage of households 62 or older where either the household head or spouse has a disability to calculate the number of households 62 or older where either the household head or spouse has a disability ("elderly disabled families").

⁴¹⁵ Projections were made using age-specific headship rates derived from 2010 U.S. Census counts to approximate the number of senior households, defined as householders 62 years or older, in 2020 and 2030. The projected share of senior households that will be very low-income (with an income of 50 percent or less of area median income) was calculated using HUD's Comprehensive Housing Affordability Strategy (CHAS) for years 2000 and 2006–2010. The CHAS estimate for the share of very low-income senior households was applied to the census counts for the projected number of senior households in 2020 and 2030 to derive a total number of very low-income senior households. The upper bound represents a projection based on the growth equivalent to the percentage point change in share of very low-income senior households between 2000 and 2006–2010 applied to each of the subsequent decades. The lower bound estimate represents the share of very low-income senior households as estimated in 2006–2010, assuming no change in coming decades.

⁴¹⁶ U.S. Department of Housing and Urban Development, *Worst Case Housing Needs 2011*.

⁴¹⁷ U.S. Department of Housing and Urban Development, "Resident Characteristics Report" data, <https://pic.hud.gov/pic/RCRPublic/rcrmain.asp>; U.S. Department of Housing and Urban Development, *Worst Case Housing Needs 2011*. The HIA team used the estimated number of "other family" and "other nonfamily" households with non-elderly people with disabilities as a proxy for non-elderly disabled households, which would include single adults, married couples who are childless or have adult children at home, and adult relatives or nonrelatives sharing an apartment. These estimates could include some households that would not be eligible for designated housing if the head of household or spouse of the head of household is not a person with a disability. The team excluded households that are families with

children with non-elderly people with disabilities from this estimate, given that these households would likely not be eligible for zero- or one-bedroom units due to a mismatch in unit size and household need. The 2009 to 2011 data were the most recent available at the time this HIA was being conducted. HUD released updated data in February 2015. For the updated figures, see U.S. Department of Housing and Urban Development, *Worst Case Housing Needs: 2015 Report*.

⁴¹⁸ Based on a review of all approved Designated Housing Plans submitted to HUD's Office of Public and Indian Housing between July 1, 2013, and June 30, 2014.

⁴¹⁹ J. Gustafson and J.C. Walker, *Analysis of State Qualified Allocation Plans for the Low-Income Housing Tax Credit Program* (Washington: U.S. Department of Housing and Urban Development, 2002), accessed Sept. 3, 2014, <http://www.huduser.org/Publications/pdf/AnalysisQAP.pdf>.

⁴²⁰ Corporation for Supportive Housing, *Housing Credit Policies in 2013 That Promote Supportive Housing* (New York: Author, 2013), accessed Aug. 29, 2014, http://www.csh.org/wp-content/uploads/2013/10/2013_QAP_Report_Final.pdf.

⁴²¹ U.S. Department of Housing and Urban Development, "RAD 1st Component Initial Awards," December 2012, accessed Aug. 29, 2014, <http://portal.hud.gov/hudportal/documents/huddoc?id=RAD1stCom121912.pdf>.

⁴²² U.S. Department of Housing and Urban Development, "Rental Assistance Demonstration Program Information, RAD Program Update," Dec. 31, 2013, accessed Aug. 29, 2014, http://portal.hud.gov/hudportal/documents/huddoc?id=RAD_PPtUpdate123113.pptx.

⁴²³ Based on a comparison of HUD's RAD 1st Component Reservations list as of May 31, 2014, http://portal.hud.gov/hudportal/documents/huddoc?id=radreservations5_31_14.pdf, and HUD's Designated Housing Status Report as of April 2014, http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/ph/dhp/designated.

⁴²⁴ U.S. Department of Housing and Urban Development, "Rental Assistance Demonstration Program Information, 1st Component (Public Housing & Section 8 Mod Rehab Housing)," accessed Aug. 29, 2014, <http://portal.hud.gov/hudportal/HUD?src=/RAD/info>; U.S. Department of Housing and Urban Development, "Rental Assistance Demonstration Program Information, RAD Program Update."

⁴²⁵ U.S. Department of Housing and Urban Development, "Designated Housing Status Report" as of April 2014, http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/ph/dhp/designated.

⁴²⁶ U.S. Department of Housing and Urban Development, "Resident Characteristics Report" data.

⁴²⁷ U.S. Department of Housing and Urban Development, "FHEO Filed Cases"; U.S. Department of Housing and Urban Development FHEO staff, pers. comm. regarding TEAPOTS data, Aug. 19, 2014.

⁴²⁸ Popkin and Cunningham, *Searching for Rental Housing*.

⁴²⁹ Turner et al., *Discrimination Against Persons*; Smith et al., "Aging and Disability."

⁴³⁰ M. Shea et al., *Housing Choice Voucher Tenant Accessibility Study: 2001–2002* (Washington: U.S. Department of Housing and Urban Development, 2004), accessed Sept. 3, 2014, <http://www.huduser.org/Publications/pdf/HCVTenantAccessibilityStudy.pdf>.

⁴³¹ National Council on Disability, *The State of Housing in America in the 21st Century: A Disability Perspective* (Washington: Author, 2010), accessed Sept. 3, 2014, <http://www.ncd.gov/publications/2010/Jan192010>.

⁴³² 24 CFR § 8.27, accessed Oct. 29, 2014, <http://www.law.cornell.edu/cfr/text/24/8.27>; U.S. Department of Housing and Urban Development, Notice PIH 2005-2 (HA), accessed Oct. 29, 2014, http://portal.hud.gov/hudportal/documents/huddoc?id=DOC_8096.pdf.

⁴³³ Michael Allen, "Increasing the Usability of Housing Choice Vouchers for People With Disabilities," *Housing Law Bulletin*, accessed Sept. 3, 2014, <http://www.bazelon.org/LinkClick.aspx?fileticket=h7fNsTalv64%3D&tabid=245>.

⁴³⁴ Jacobs and Baeder, *Housing Interventions*.

⁴³⁵ Ibid.

⁴³⁶ Kramer and Hogue, "Is Segregation Bad?"

⁴³⁷ 24 CFR § 880.612(a), accessed Oct. 9, 2014, <http://www.law.cornell.edu/cfr/text/24/880.612a>; U.S. Department of Housing and Urban Development, Notice PIH-2012-32 (HA), REV-1, accessed Oct. 9, 2014, <http://portal.hud.gov/hudportal/documents/huddoc?id=pih2012-32rev1.pdf>.

⁴³⁸ J. Pynoos et al., "Aging in Place"; U.S. Department of Housing and Urban Development, "Statement of the Department of Housing and Urban Development on the Role of Housing."

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- ⁴³⁹ U.S. Department of Justice, Civil Rights Division, “Olmstead: Community Integration for Everyone,” accessed Sept. 3, 2014, <http://www.ada.gov/olmstead/index.htm>.
- ⁴⁴⁰ Community Living Policy Center, “Olmstead Plans and Related State Activity,” Data available upon request.
- ⁴⁴¹ State-level plans and settlements were collected and utilized for this assessment. It should be noted that other jurisdictions, such as counties and municipalities, could also be subject to *Olmstead* lawsuits and as a result have local *Olmstead* plans or response strategies.
- ⁴⁴² Community Living Policy Center, “Olmstead Plans and Related State Activity,” Data available upon request.
- ⁴⁴³ U.S. Department of Justice, “ADA *Olmstead* Settlement Agreements,” accessed Sept. 3, 2014, http://www.ada.gov/olmstead/olmstead_docs_list.htm#Settlements. These are estimates from state plans and do not represent any single institution from which individuals are proposed to move.
- ⁴⁴⁴ U.S. Department of Justice, “New York ADA Settlement Fact Sheet,” accessed Sept. 17, 2014, <http://www.ada.gov/olmstead/documents/new-york-factsht-olmstead.docx>.
- ⁴⁴⁵ U.S. Department of Justice, “North Carolina ADA Agreement Fact Sheet,” accessed Sept. 17, 2014, <http://www.ada.gov/olmstead/documents/nc-factsheet-olmstead.pdf>.
- ⁴⁴⁶ U.S. Department of Justice, “Delaware ADA Settlement Fact Sheet,” accessed Sept. 17, 2014, http://www.ada.gov/delaware_fact_sheet.htm.
- ⁴⁴⁷ U.S. Department of Justice, “Steward v. Perry ADA Interim Settlement Fact Sheet,” accessed Sept. 17, 2014, <http://www.ada.gov/olmstead/documents/steward-fact-sheet.docx>.
- ⁴⁴⁸ U.S. Department of Justice, United States v. Georgia, Civil No. 1:10-CV-249-CAP, October 2010, “Settlement Agreement Fact Sheet,” accessed Sept. 17, 2014, http://www.ada.gov/olmstead/documents/georgia_fact_sheet.pdf.
- ⁴⁴⁹ U.S. Department of Justice, “Virginia ADA Settlement Fact Sheet,” accessed Sept. 17, 2014, http://www.ada.gov/olmstead/documents/virginia_fact_sheet.pdf.
- ⁴⁵⁰ U.S. Department of Justice, “United States v. Georgia, Civil No. 1:10-CV-249-CAP.”
- ⁴⁵¹ U.S. Department of Justice, “Virginia ADA Settlement Fact Sheet.”
- ⁴⁵² Corporation for Supportive Housing, “The State of the Supportive Housing Industry.”
- ⁴⁵³ Talen and Burke Valeras, *Integrated Behavioral Health*; Kaiser Family Foundation, *Money Follows the Person*.
- ⁴⁵⁴ Fox-Grage and Walls, *State Studies Find*.
- ⁴⁵⁵ Analysis of Behavioral Risk Factor Surveillance System 2012 data of population health characteristics among low-income younger people with disabilities. Please see Methods and Appendix C.
- ⁴⁵⁶ U.S. Centers for Disease Control and Prevention, “Chronic Disease Cost Calculator,” (2013), accessed Sept. 5, 2014, <http://www.cdc.gov/chronicdisease/resources/calculator>; “User Guide,” http://www.cdc.gov/chronicdisease/pdf/cdcc_user_guide.pdf.
- ⁴⁵⁷ Centers for Medicare and Medicaid Services, *Chronic Conditions Among Medicare Beneficiaries* (Baltimore, MD: Author, 2012), accessed Sept. 5, 2014, <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Chronic-Conditions/Downloads/2012Chartbook.pdf>. Analysis of Behavioral Risk Factor Surveillance System 2012 data of population health characteristics among low-income younger people with disabilities. Please see Methods and Appendix C.
- ⁴⁵⁸ For example, HUD could consider expanding existing guidance on partnerships, such as notice PIH 2011-51, “Promoting Partnerships to Utilize Housing as a Platform for Improving Quality of Life.”
- ⁴⁵⁹ With some exceptions, PHAs generally cannot require residents to receive services as a condition of living in a unit, but they and their partners can offer services to residents.
- ⁴⁶⁰ Kitchener et al., “Institutional and Community-Based Long-Term Care.” It should be noted that transitioning to community-based settings may not be feasible for all residents who expressed the desire to return home.
- ⁴⁶¹ HUD’s eCon Planning Suite is a tool that supports its grantees and the public in assessing local needs and making strategic community development investments.
- ⁴⁶² Some buildings, based on size or type, are currently exempt from the Act’s requirements. To the extent possible, all units, and especially those intended for occupancy by senior and disabled households, should be built to accessibility standards.
- ⁴⁶³ The community-level need indicator could be calculated using two consecutive American Community Survey estimates to identify counties where the lower bound of the confidence interval in a later estimate is higher than the upper bound of

the confidence interval in an earlier estimate in order to highlight areas that have statistically significant increases in populations in poverty.

⁴⁶⁴ U.S. Department of Housing and Urban Development, "Housing Choice Vouchers Fact Sheet."

⁴⁶⁵ U.S. Department of Housing and Urban Development, "Picture of Subsidized Households."

⁴⁶⁶ U.S. Department of Housing and Urban Development, "Housing Choice Vouchers Fact Sheet."

⁴⁶⁷ U.S. Department of Housing and Urban Development. "Picture of Subsidized Households." For estimates of non-elderly disabled families, the HIA team calculated the number of households where the head of household or spouse (whoever is older) is younger than 62. The team then applied the percentage of households below age 62 where either the household head or spouse has a disability to calculate the number of households below age 62 where either the household head or spouse has a disability.

⁴⁶⁸ U.S. Department of Housing and Urban Development, "HOPE VI"; U.S. Department of Housing and Urban Development, "Choice Neighborhoods."

⁴⁶⁹ U.S. Department of Housing and Urban Development, "HUD Launches Groundbreaking."

⁴⁷⁰ Ibid.; U.S. Department of Housing and Urban Development, "Rental Assistance Demonstration, Program Information," accessed July 17, 2014, <http://portal.hud.gov/hudportal/HUD?src=/RAD/info>.

⁴⁷¹ U.S. Department of Housing and Urban Development, "HUD Launches Groundbreaking."

⁴⁷² U.S. Department of Housing and Urban Development, "Rental Assistance Demonstration," presentation by the National Low Income Housing Coalition, accessed July 17, 2014, <http://portal.hud.gov/hudportal/documents/huddoc?id=RADNLIHC314FINAL.pdf>.

⁴⁷³ U.S. Department of Housing and Urban Development, "Rental Assistance Demonstration Toolkit #1: Why RAD? A Rental Assistance Demonstration Overview," accessed July 17, 2014, <http://portal.hud.gov/hudportal/documents/huddoc?id=Toolkit1WhyRAD.pdf>.

⁴⁷⁴ Ibid.

⁴⁷⁵ Enterprise Community Partners Inc., "Issue Background: Low-Income Housing Tax Credit," (2013), accessed July 17, 2014, <http://www.enterprisecommunity.com/low-income-housing-tax-credits-policy>.

⁴⁷⁶ M.P. Keightley, "An Introduction to the Low-Income Housing Tax Credit," Congressional Research Service (2013), accessed July 17, 2014, <http://fas.org/sgp/crs/misc/RS22389.pdf>.

⁴⁷⁷ Ibid.; National Council of State Housing Agencies, "About HFAs," accessed July 17, 2014, <https://www.ncsha.org/about-hfas>.

⁴⁷⁸ Keightley, "An Introduction to the Low-Income Housing Tax Credit."

⁴⁷⁹ Ibid.

⁴⁸⁰ E. Gramlich, "Qualified Allocation Plan," National Low Income Housing Coalition (2014), accessed July 17, 2014, <http://nlihc.org/sites/default/files/2014AG-259.pdf>.

⁴⁸¹ U.S. Department of Housing and Urban Development, "Section 202 Supportive Housing for the Elderly Program."

⁴⁸² Haley and Gray, Section 202 Supportive Housing.

⁴⁸³ "Section 811 Supportive Housing for Persons With Disabilities," U.S. Department of Housing and Urban Development.

⁴⁸⁴ HUD Office of Multifamily Housing Programs, pers. comm., July 15, 2013.

⁴⁸⁵ "Resource Center on Supportive Housing," Technical Assistance Collaborative.

⁴⁸⁶ Korman, "Clash of the Integrationists"; U.S.C. § 11403g (2006); "Shelter Plus Care (S+C)," U.S. Department of Housing and Urban Development.

⁴⁸⁷ "Housing Opportunities for Persons With AIDS," U.S. Department of Housing and Urban Development.

⁴⁸⁸ 42 U.S.C. § 12742(a)(1); Korman, "Clash of the Integrationists."

⁴⁸⁹ Bipartisan Policy Center, *Housing Programs in the United States* (2012), accessed Sept. 10, 2014, <http://bipartisanpolicy.org/wp-content/uploads/sites/default/files/U.S.%20Housing%20Programs.pdf>.

⁴⁹⁰ The HIA team evaluated sources using a study critique outline that focuses on strength of association, consistency of evidence, biological plausibility, consideration of covariates in the causal pathway, applicability to target population, bias, and confounding.

⁴⁹¹ See HUD Geospatial Data and Map Services, *Assisted Housing Properties*, <http://www.huduser.org/portal/datasets/gis/assthsg.html>, HUD's Designated Housing Status Report,

http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/ph/dhp/designated, and HUD's "Resident Characteristics Report," <https://pic.hud.gov/pic/RCRPublic/rcrmain.asp>.

⁴⁹² All other sources include Public Housing, Tenant-Based Voucher, Project-Based Certificate, Project-Based Voucher, Combined Project-Based Certificate and Project-Based Voucher, Homeownership Voucher, and Section 8 Moderate Rehabilitation (including Single Room Occupancy Rehabilitation).

⁴⁹³ To estimate non-elderly disabled households without children, the HIA team applied a discount factor derived from the ACS data. To estimate the demand for affordable housing from households with children, the HIA team used "small family (two persons, neither person 62 years or over, or three or four persons)" and "large family (five or more persons)" variables from CHAS data. The team estimated the utilization of affordable units among households with children by summing the data on non-elderly households with children and female-headed households with children from RCR data. This approach was used since CHAS does not include a "with children" variable.

⁴⁹⁴ Indicators related to crime and access to health clinics could not be included in this analysis since these data are only available at the county level.

⁴⁹⁵ Buildings were determined to be in an RCAP/ECAP if they were located in a census tract that qualified as an RCAP/ECAP.

⁴⁹⁶ "Data Warehouse Glossary," Health Resources and Services Administration, accessed Sept. 30, 2014, <http://datawarehouse.hrsa.gov/resources/glossary.aspx#F>.

⁴⁹⁷ National Collaborating Centre for Healthy Public Policy, *Citizen Participation*.

⁴⁹⁸ For ease of scheduling, some interviews were bundled into conversations with multiple staff members or community partners at the same time (e.g., a resident service coordinator or property manager meeting).

⁴⁹⁹ L. Richards and J.M. Morse, *Read Me First for a User's Guide to Qualitative Methods* (Thousand Oaks, CA: Sage Publications, 2013).

⁵⁰⁰ Y.S. Lincoln and E.G. Guba, *Naturalistic Inquiry* (London: Sage Publications, 1985).