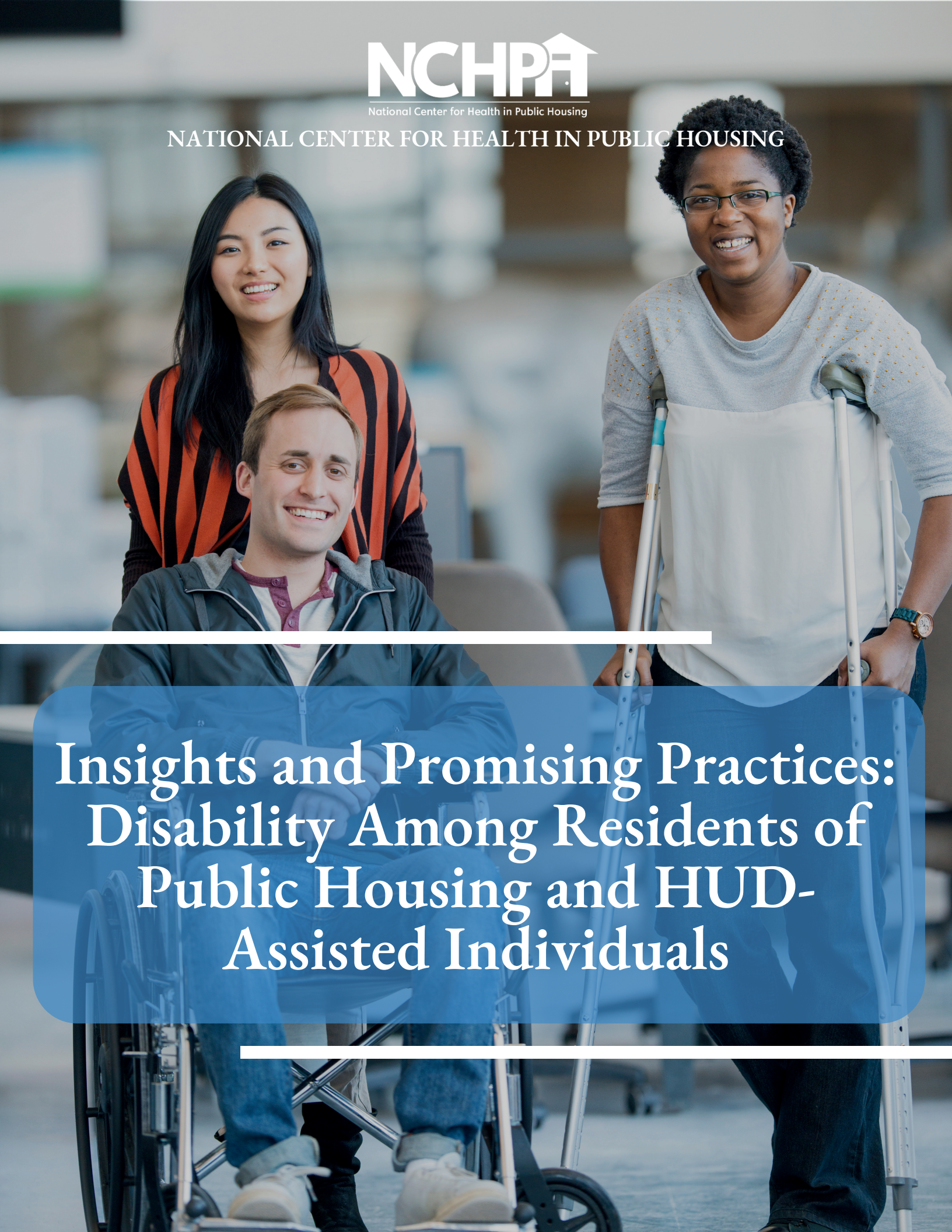
NCHPH
National Center for Health in Public Housing

NATIONAL CENTER FOR HEALTH IN PUBLIC HOUSING



Insights and Promising Practices: Disability Among Residents of Public Housing and HUD-Assisted Individuals

I. Introduction

According to the Centers for Disease Control and Prevention (CDC) up to 1 in 4 adults in the United States experience some type of disability[1]. The most common functional types of disability reported were those related to cognition (12.8%), mobility (12.1%), independent living (7.2%), hearing (6.1%), vision (4.8%) and self-care (3.6%)[2]. Among the fastest-growing populations in the U.S., individuals with emotional, intellectual, or physical disabilities represent a large and growing proportion of the patients served by health centers, particularly those who provide care to underserved populations and communities. According to the U.S. Bureau of Labor Statistics from 2019 to 2023 there was a ten percent increase in the number of people aged 16 to 64 who identified as having a disability, a trend that is expected to grow for the foreseeable future.[3] As the results of our analyses will show, health centers and particularly those designated as Public Housing Primary Care Grantees (PHPCs) currently serve populations that experience rates of disability that are significantly higher than the general U.S. population. Thus, in addition to drawing attention to the significant burden of disability managed by health centers, this publication seeks to emphasize the promising practices utilized by these organizations to support their patients and communities.

Other research has suggested that Residents of Public Housing and the HUD-Assisted individuals experience disproportionate rates of emotional, intellectual, and physical disability and often face significant barriers in accessing housing with accessibility features and required primary and preventive medical services. These populations have also been found to experience increased prevalence of a range of co-morbid chronic diseases including coronary artery disease and type 2 diabetes mellitus[4].

In this publication we present unique analyses completed by researchers at the National Center for Public Housing (NCHPH) using publicly available data provided by the Health Resources and Services Administration (HRSA), Centers for Disease Control and Prevention (CDC), and the United States Government Accountability Office (GAO) which provide a unique perspective of the lives of patients of health centers, Residents of Public Housing and the HUD-Assisted. Released approximately every 5-8 years, the health center Patient Survey includes a nationally representative weighted sample which is designed to reflect the approximately 30 million patients who use health centers for their health care. Because the survey, last released in 2022 asks patients details regarding their disability and housing status (using standardized questions) the data were recoded and utilized to examine the prevalence of all classes of functional disability. Secondly, in this publication we reflect on the experiences of health centers, their staff, and recently published research to present recommendations and promising practices in serving patients who receive housing assistance and experience emotional, intellectual, or physical disabilities.

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[1] *Centers for Disease Control and Prevention. Disability and Health Data System (DHDS) [Internet]. [updated 2023 May; cited 2023 May 15]. Available from: http://dhds.cdc.gov*

[2] *Rodrigues MA, Facchini LA, Thumé E, Maia F. Gender and incidence of functional disability in the elderly: A systematic review. Cad Saúe Pública. 2009;25:464–76*

[3] U.S. Bureau of Labor Statistics, "Labor Force Statistics from the Current Population Survey, 2024, Population disability, 16 to 64 years

[4] *HUD Rental Assistance: Serving Households with Disabilities, U.SS. Government Accountability Office, GAO-23-106339, 4/29/2023, https://www.gao.gov/products/gao-23-106339*

II. Methodology

Researchers at NCHPH accessed public use data files with raw data from HRSA's 2022 Health Center Patient Survey[5]. To identify the prevalence of functional disability, cross-tabulations were performed between the variables for all questions related to respondent emotional, intellectual, or physical disability, including those corresponding with definitions and wording utilized by the CDC. Housing status was determined by analyzing survey data identifying respondent housing type. Variables coded as numerical or string in the data were dichotomized to "yes" or "no" responses and used as primary identifiers. This was then utilized to divide the population reflected by the data into three study groups: Health center patients not receiving housing support, Residents of Public Housing, and the HUD-Assisted excluding Residents of Public Housing (Includes Section 8 Voucher, Housing Choice Voucher, Project-based Section 8, and other HUD Public Housing programs).

Bivariate and multivariate analyses were performed to examine the relationship between patient housing type and their responses to questions detailing the extent of emotional, intellectual, and physical disability they experience. For comparison, data provided from the CDC, Disability and Health Data System (DHDS)[6] were utilized to establish the prevalence of functional disability by subtype in the U.S. To perform logistic regressions and obtain odds ratios, variables coded as numerical or string in the survey were dichotomized to "yes" or "no" responses. All analyses were performed using STATA 15.0 statistical analysis software (StataCorp LP, College Station, TX). All data utilized by this report had been de-identified by its issuers prior to analysis by NCHPH and thus did not require institutional Review Board (IRB) approval.

Promising practices presented in the discussion section were gathered by NCHPH through standard communication with health centers including structured interviews, T/TA discussions, and consultations with health center management and staff.

III. Results

Results of the completed analyses are displayed in Table 1 and detail the prevalence of classes of functional disability experienced by the HUD-Assisted and Residents of Public Housing with all other patients (All other Housing) utilized as the comparison group. In the preceding sections, we present analyses of these disabilities by type.

[5] *HRSA Health Center Patient Survey, Accessed June 10, 2024; https://bphc.hrsa.gov/data-reporting/health-center-patient-survey*

[6] *Centers for Disease Control and Prevention. Disability and Health Data System (DHDS) [Internet]. [updated 2023 May; cited 2023 May 15]. Available from: http://dhds.cdc.gov*

Self-reported disability details by housing type: HRSA Health Center patient survey (2022)								
n (weighted) = 27,224,243	All other Housing (%)	95% CI	All HUD-assisted* (%)	95% CI	*p*	Public Housing (%)	95% CI	*p*
Deaf or serious difficulty hearing	**7**	5.3-9.3	**10.1**	5.9-16.8	0.3646	**9.6**	4.5-21.2	0.7321
Blind or serious difficulty seeing	**8**	5.9-10.2	**13.4**	8.9-20.5	0.0458	**12.8**	6.8-23.0	0.1807
Difficulty with self-care such as washing or dressing	**10.9**	8.8-13.5	**22.8**	15.6-32.0	0.0005	**22.4**	12.8-36.2	0.0254
Difficulty with eating (feeding oneself)	**6.3**	4.9-8.1	**10**	5.4-18.0	0.20	**17.5**	9.0-31.2	0.0014
Difficulty doing errands alone	**19.8**	16.6-23.5	**18.8**	11.1-30.2	0.002	**20.3**	14.0-28.5	0.007
Difficulty climbing stairs	**13.4**	10.7-16.6	**28.5**	17.1-30.5	0.004	**30.3**	17.0-41.2	0.01
Difficulty concentrating, remembering, or making decisions	**21.3**	17.8-25.2	**35.3**	26.5-45.1	0.009	**18.8**	11.1-30.2	0.007

** Includes Section 8 Voucher, Housing Choice Voucher, Project-based Section 8 and other HUD PH programs*

***Table 1 Self-reported disability details by housing type**: Results of analyses performed by NCHPH utilizing the 2022 HRSA Health Center Patient Survey public use files.*

a. Hearing and Vision Impairment

According to the CDC, in 2021 6.1% of U.S. adults had a vision disability with blindness or difficulty seeing even when wearing glasses and 4.8% of the US population experienced deafness or serious difficulty hearing[7] (see Figure 1 Sensory disability and housing status). When we examine the survey results, we can see that for both disabilities of vision and hearing health center patients were significantly more likely to be impacted. Furthermore, when we examine the results for Residents of Public Housing and the HUD-Assisted we see that they experience rates of roughly two times the magnitude of that experienced by the adult U.S. population.

[7] *Centers for Disease Control and Prevention. Disability and Health Data System (DHDS) [Internet]. [updated 2023 May; cited 2023 May 15]. Available from: http://dhds.cdc.gov*

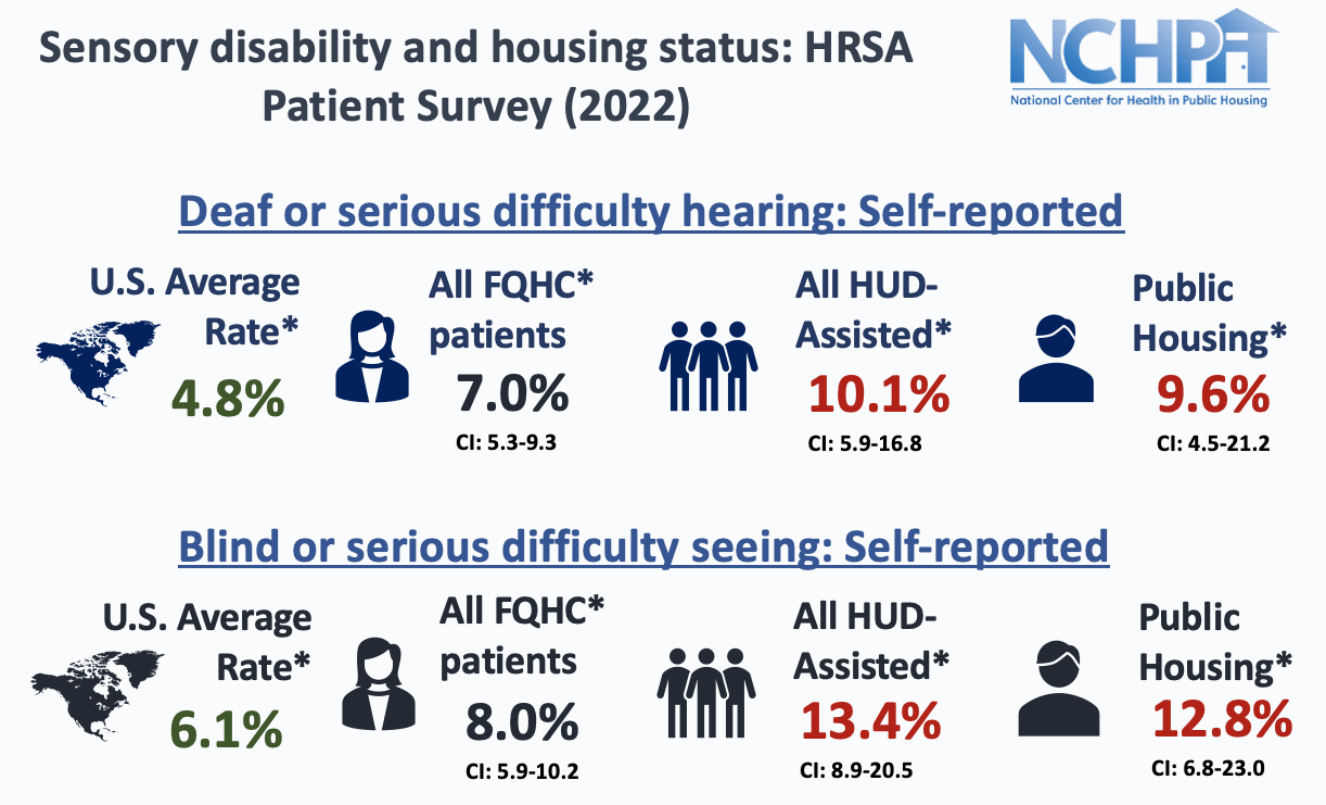

Figure 1 Sensory disability and housing status: *The prevalence of functional disabilities in vision and hearing reported by health center patients is compared to national data from the CDC DHDS.*

In 2023, the CDC estimated that 3.6 percent of the US population experienced a self-care deficit with difficulty washing or dressing themselves[8]. Analyses performed by NCHPH indicated that for all health center patients, the reported rate of this deficit in the 2022 HRSA Patient Survey indicated a rate of 10.9%, nearly three times the magnitude of that reported by the CDC. These data reflect observations by both recent research and health center staff indicating that patients who visit these institutions experience overall poorer health and more complex social circumstances than the general U.S. population. These data also reflect the disproportionate economic burden experienced by health center patients and correspond with evidence indicating that these patients are more likely to experience homelessness, unemployment, or to receive HUD housing support.

Analysis of the 2022 HRSA Patient Survey further indicates the increased likelihood that Residents of Public Housing or HUD-Assisted patients experienced functional deficits in washing or dressing. The analyses indicated that a total of 22.4% Residents of Public Housing and 22.8% HUD-Assisted individuals

[8] *Centers for Disease Control and Prevention. Disability and Health Data System (DHDS) [Internet]. [updated 2023 May; cited 2023 May 15]. Available from: http://dhds.cdc.gov*

experienced functional disabilities in washing or dressing, a rate that is approximately 9 times higher than that experienced by the general population, (see figure 2. Self-care and Housing status).

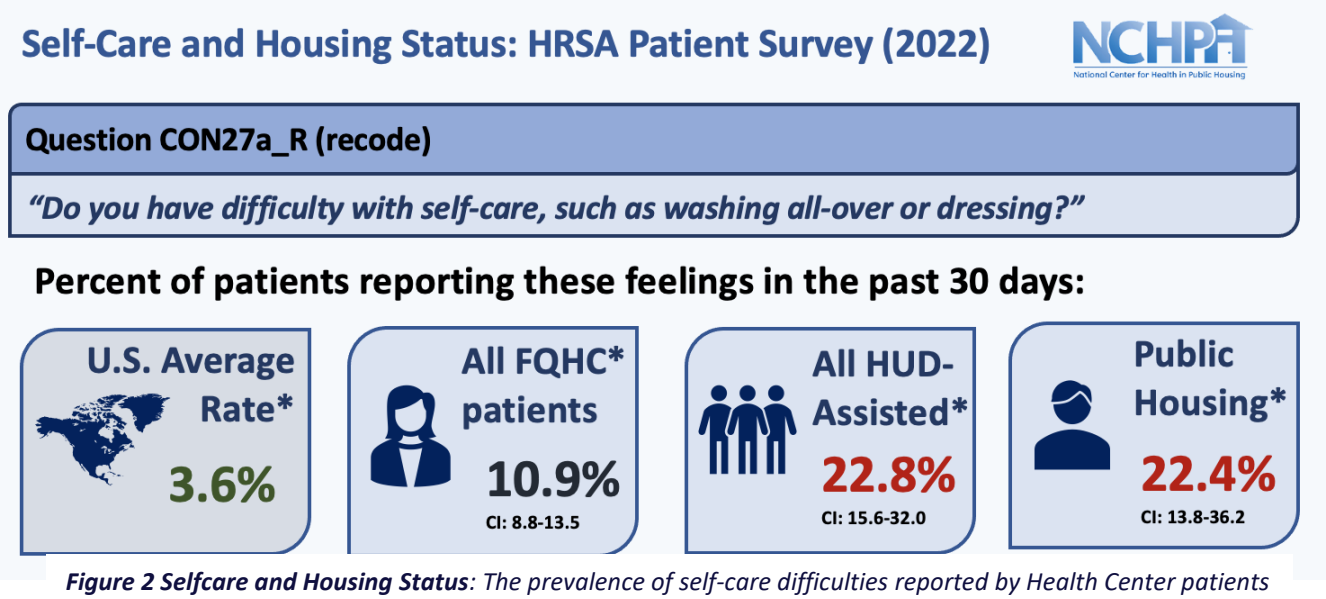

***Figure 2 Selfcare and Housing Status**: The prevalence of self-care difficulties reported by Health Center patients is compared to national data from the CDC DHDS.*

c. Mobility and Community Living:

Mobility is a key aspect of independent living. Individuals who suffer from physical, mental, or emotional disabilities are often unable to access spaces outside of their homes. Because of this, they are more likely to experience social isolation, and suffer from its consequences, including depression and anxiety. Social isolation is a common experience of individuals with disability. In addition to the aforementioned conditions, an overall negative impact on health is commonly observed, including a higher likelihood of developing cardiovascular disease, type 2 diabetes mellitus, poor nutrition, and decreased compliance with medical screening and primary care recommendations. According to the CDC, in 2023 7.2% of the U.S. population experienced an independent living disability with difficulty, facing difficulty in doing errands alone. As indicated by the 2022 Health Center Patient Survey, in this measure of functional disability, health center patients were again more likely to be affected by this type of disability at 8.9% of the population. Both residents of the HUD-Assisted and Residents of Public Housing experienced independence deficit disabilities of 18.8% and 20.3% respectively, which supports prior research indicating that these populations experience significantly elevated rates of disability, while emphasizing the unique vulnerability of these populations to sequelae of social isolation, (see figure 3 Independent living and housing status).

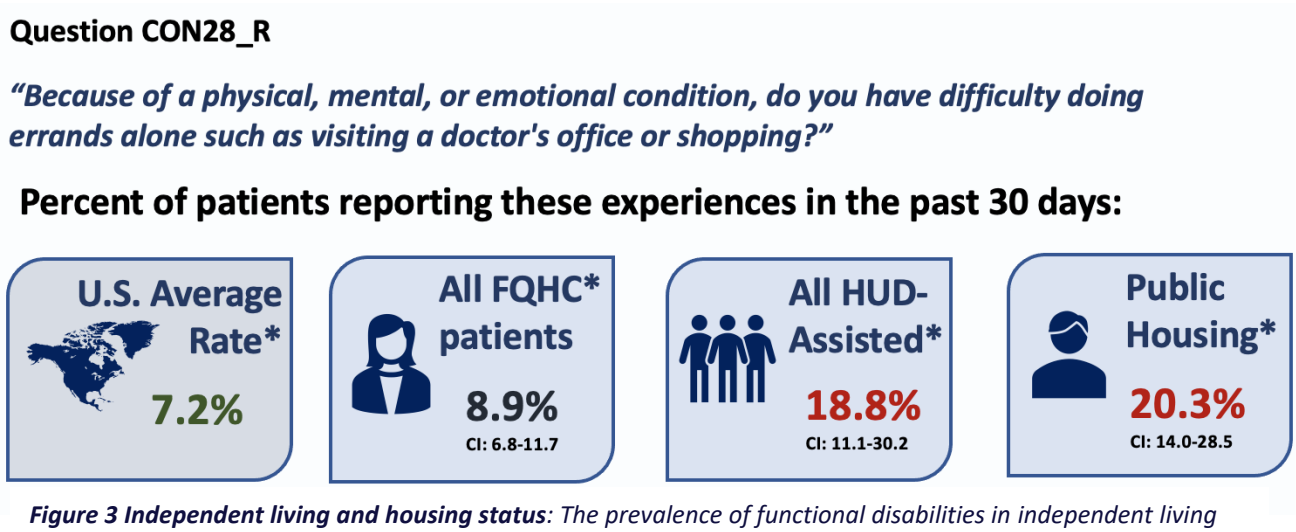

***Figure 3 Independent living and housing status**: The prevalence of functional disabilities in independent living reported by health center patients is compared to national data from the CDC DHDS from 2023*

A recent report from the Government Accountability Office indicated that a significant proportion of HUD-Assisted individuals with physical disabilities lived in homes that lacked key accessibility features. Among the report's findings were that 28% of HUD-Assisted households with a disabled mobility device user did not have a no-step entry[9].

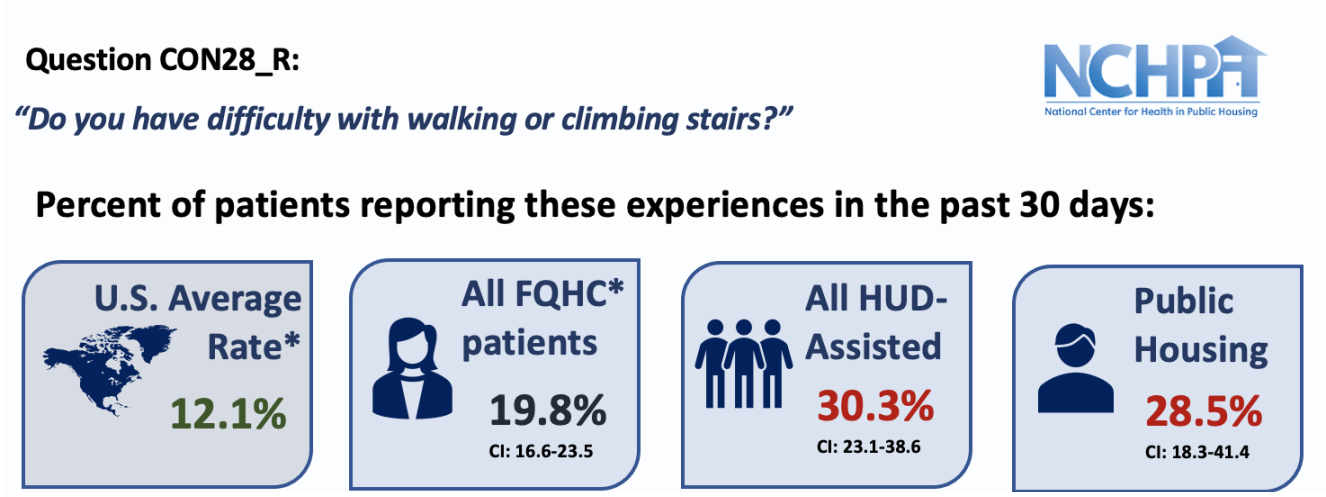

***Figure 4 Mobility and housing status**: The prevalence of functional disabilities in mobility reported by health center patients is compared to national data from the CDC DHDS from 2023.*

Figure 4 presents the result of additional investigations into functional deficits impacting mobility and community living among health center patients, particularly Residents of Public Housing and HUD-Assisted individuals. These analyses compare NCHPH's findings from the 2022 HRSA's Health Center Patient Survey with CDC data indicating the percentage of individuals in the US experiencing a mobility disability, which includes inability or difficulty climbing stairs. According to the CDC, 12.8% of the U.S. population

[9] *HUD Rental Assistance: Serving Households with Disabilities, U.S. Government Accountability Office, 2019, https://www.gao.gov/products/gao-23-106339*

has difficulty walking or climbing stairs. Analysis of the 2022 HRSA Health Center Patient Survey indicated that health center patients were approximately 60% more likely to experience this disability, with residents of public housing and HUD-assisted individuals experiencing rates of 28.5% and 30.3%, respectively. These rates were between 166% and 275% higher than the CDC figure. (see Figure 4 Mobility and Housing Status).

d. Intellectual and emotional disability

Individuals experiencing cognitive disabilities face a range of challenges that may impede their ability to live independently. Common difficulties include financial challenges, maintaining relationships, barriers to community mobility, and managing estate and medical affairs. Patients with cognitive disabilities, which range from temporary etiologies to permanent and progressive causes such as mild cognitive impairment, dementia, and Alzheimer's disease, often require extensive social support and are more likely to experience a range of comorbid chronic diseases, including cardiovascular disease and congestive heart failure, and stroke.

In 2023, the CDC estimated that 12.8% of U.S. adults have a cognitive disability with serious difficulty concentrating, remembering, or making decisions.[10] Health center patients exhibited elevated rates at 21.3%, with Residents of Public Housing and HUD-Assisted exhibiting rates at 18.8% and 35.3% respectively (see Figure 5 Intellectual disability).

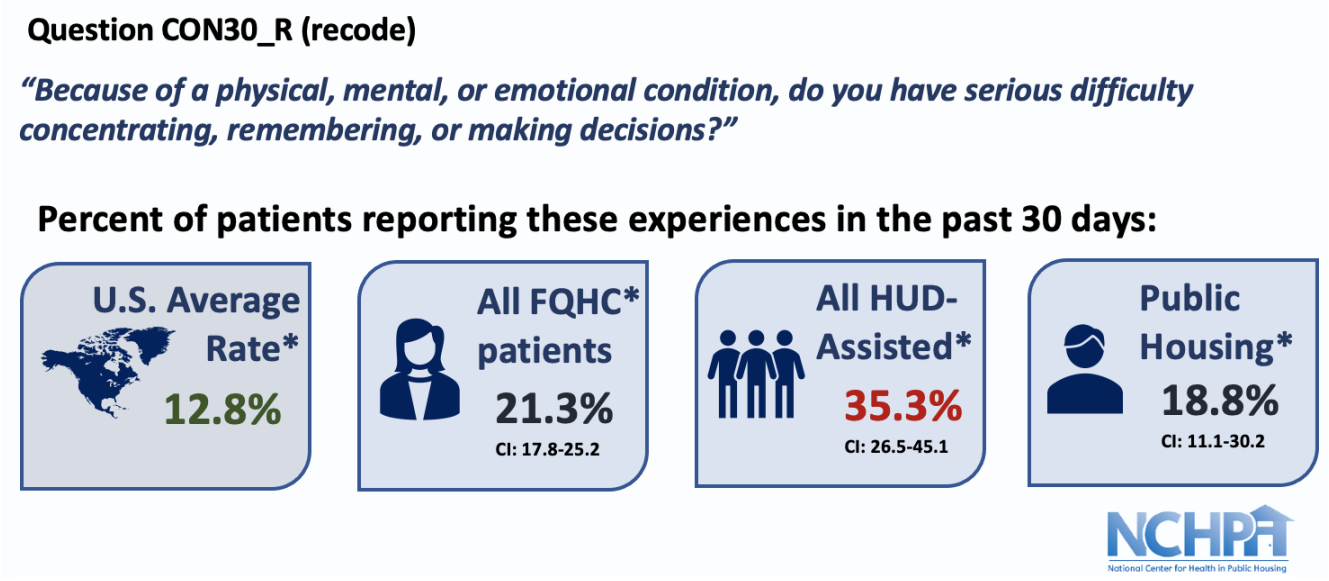

***Figure 5: Intellectual disability**: The prevalence of intellectual disabilities in concentration, memory and decision-making reported by health center patients is compared to national data from the CDC DHDS from 2023.*

[10] *Centers for Disease Control and Prevention. Disability and Health Data System (DHDS) [Internet]. [updated 2023 May; cited 2023 May 15]. Available from: http://dhds.cdc.gov*

e. Applications to health center practice

Figure six displays summary conclusions of the six domains of functional disability which were examined. Analyses performed by NCHPH regarding the prevalence of emotional, physical and intellectual disabilities reported by health center patients indicate and emphasize the significant burden of disability experienced by Residents of Public Housing and the HUD-Assisted Individuals, with both groups experiencing the highest prevalence for 3 out of the 6 studied domains. Additionally, in all 6 of the examined domains, health center patients exhibited elevated prevalence compared to data from the CHC's DHDS emphasizing the complex nature of health center patients and the challenges health centers face in meeting their health care and social support needs.

Health centers should be aware of the prevalence of vulnerable groups in their patient populations and communities including Residents of Public Housing, the HUD-Assisted and individuals with disabilities. This information is critical for proper management of patient care, and on the population level, equally important for guiding health centers. Pages 10 and 11 contain promising practice recommendations collected by NCHPH for clinical and social support care of health center patients.

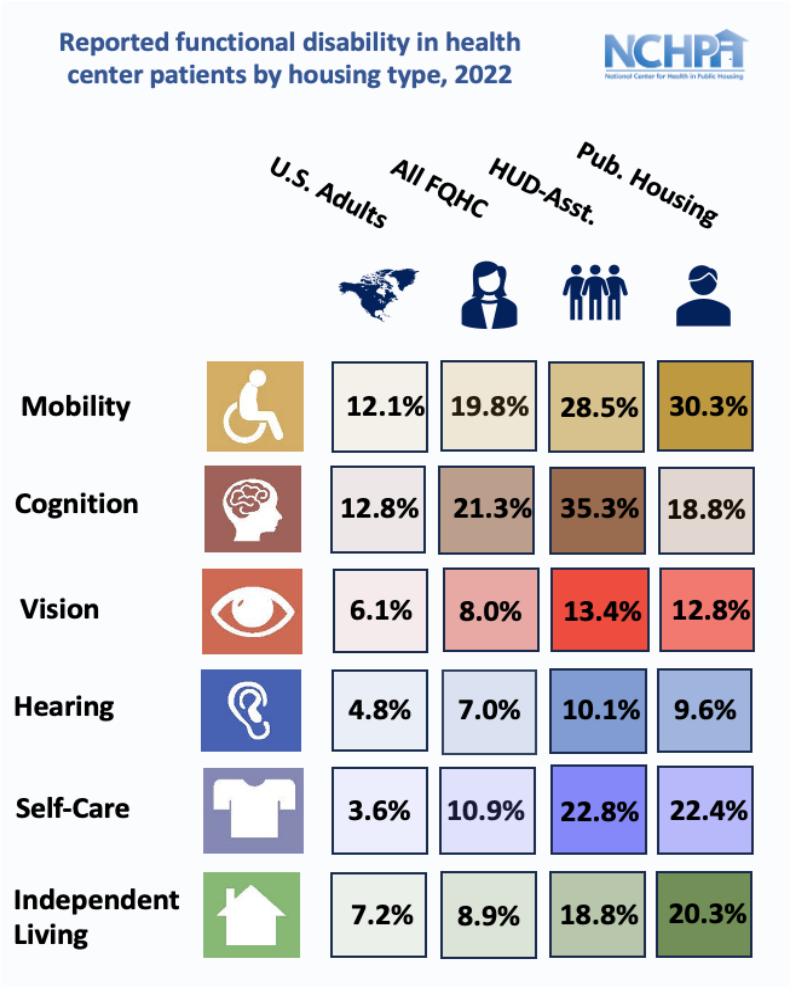

Figure 6 Summary analyses: *Shows the summary of analyses performed by NCHPH by disability and population type. Darker colors represent more significant magnitude compared to the reference population.*

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Summary Recommendations by Functional Disability

Mobility

Access to Primary Care:
Health centers can improve access to primary care through expanding telehealth access and promoting programs.

Home Visitation Services:
Home visitation services can be utilized to improve safety and access.

Home Accessibility:
Utilize partnerships with local public housing authorities and community organizations for accessible housing renovations.

Utilize SDOH Screening:
Community health workers to network and access appropriate resources.

Improve Community Engagement:
Help prevent social isolation by using social services and community health workers to network patients to community support and companionship resources.

Cognition

Ensure Home Safety:
Home assessments are often necessary to assess the needs of patients with cognitive disabilities. Health centers can provide support by performing home safety inspections themselves, or by leveraging PHA/NGO partnerships.

Provide Personalized Support:
Patients with cognitive disabilities have evolving needs and are best served when longitudinal social services are integrated into primary care.

Improve Community Engagement:
Prevent social isolation by networking patients to social support resources.

Utilize SDOH Screening:
Community health workers to network access to appropriate resources.

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Summary Recommendations by Functional Disability

Independent Living

Access to Transportation:
Access to transportation is a significant barrier for individuals with independent living deficits. Networking patients to local or health center transportation resources can improve patient community engagement and access to comprehensive primary care.

Provide Personalized Support:
These patients often benefit from longitudinal relationships with social support personnel like community health workers, allowing referral to resources that meet their specific accessibility needs.

Utilize SDOH Screening:
Community health workers to network access to appropriate resources.

Vision

Engage with Partners:
Engage with partners to expand health center access to organizations that provide vision support and specialty care.

Ensure Access to Primary and Preventative Services:
Individuals with vision disabilities require regular maintenance health care.

Utilize SDOH Screening:
Community health workers to network access to appropriate resources.

Provide Personalized Support:
These patients often benefit from longitudinal relationships with social support personnel, allowing referral to resources that meet their specific accessibility needs.

Self-Care

Ensure Home Safety:

Home assessments are often necessary to assess the needs of patients with cognitive disabilities. Health centers can provide support by performing home safety inspections themselves, or by leveraging PHA/NGO partnerships.

Ensure Access to Primary and Preventative Services:

Individuals with self-care deficits require regular maintenance health care.

Utilize SDOH Screening:

Community health workers to network access to appropriate resources.

Hearing

Engage with Partners:

Engage with partners to expand health center access to organizations that provide hearing support and specialty care.

Ensure Access to Primary and Preventative Services:

Individuals with hearing disabilities require regular maintenance health care.

Provide Personalized Support:

These patients often benefit from longitudinal relationships with social support personnel, allowing referral to resources that meet their specific accessibility needs including communication aids and sign language interpretation.

Utilize SDOH Screening:

Community health workers to network access to appropriate resources.

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