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"Weathering" HOPE VI: The Importance of Evaluating the Population Health Impact of Public Housing Demolition and Displacement

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ABSTRACT *HOPE VI has funded the demolition of public housing developments across the United States and created in their place mixed-income communities that are often inaccessible to the majority of former tenants. This recent uprooting of low-income, urban, and predominantly African American communities raises concern about the health impacts of the HOPE VI program for a population that already shoulders an enormous burden of excess morbidity and mortality. In this paper, we rely on existing literature about HOPE VI relocation to evaluate the program from the perspective of weathering—a biosocial process hypothesized by Geronimus to underlie early health deterioration and excess mortality observed among African Americans. Relying on the weathering framework, we consider the effects of HOPE VI relocation on the material context of urban poverty, autonomous institutions that are health protective, and on the broader discourse surrounding urban poverty. We conclude that relocated HOPE VI residents have experienced few improvements to the living conditions and economic realities that are likely sources of stress and illness among this population. Additionally, we find that relocated residents must contend with these material realities, without the health-protective, community-based social resources that they often rely on in public housing. Finally, we conclude that by disregarding the significance of health-protective autonomous institutions and by obscuring the structural context that gave rise to racially segregated public housing projects, the discourse surrounding HOPE VI is likely to reinforce health-demoting stereotypes of low-income urban African American communities. Given the potential for urban and housing policies to negatively affect the health of an already vulnerable population, we argue that a health-equity perspective is a critical component of future policy conversations.*

KEYWORDS *HOPE VI, Weathering, African American, Health inequality*

INTRODUCTION

In recent years, a significant body of literature has documented the widespread urban revitalization and public housing demolition that have occurred in many US cities.[1–4] However, largely absent from this literature is a population health perspective that considers the potential health costs of demolition and displacement, in particular, for low-income African American communities who have experienced repeated policy-induced uprooting over the past century.[5] Several scholars have suggested that the recent HOPE VI program, launched by the department of Housing and Urban Development (HUD) in 1992 to fund the demolition and

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revitalization of public housing, is the latest in a process of "serial displacement" that has had dire consequences for the health of African American communities and their residents.[5–7]

The HOPE VI program has funded the demolition of nearly 100,000 public housing units and has often created in their place new and attractive mixed-income developments. However, at most redeveloped HOPE VI sites, income-mixing criteria and other restrictions exclude the vast majority of original tenants, who are relocated to other public housing developments or to private-market rental units that are often subsidized with a Housing Choice Voucher.[8] Thus, one significant outcome of HOPE VI is a large-scale relocation of low-income households and communities.

While public housing serves a racially diverse population, the vast majority of those displaced by the HOPE VI program are African American.[8,9]Among other extreme disadvantages, African American residents of high-poverty urban areas suffer staggeringly high rates of excess morbidity and mortality.[10]For example, in 1990, prior to HOPE VI implementation, Geronimus et al.[11]found that black youth residing in high-poverty urban areas experienced 25 fewer years of active life expectancy compared with same-age white residents of socioeconomically more-advantaged locales. Alarming as they are, such statistics understate the degree to which the urban poor experience "family comorbidity,"[12] whereby multiple family members suffer concurrent physical and mental health problems. In their Three-Cities ethnographic study of low-income households, Burton and colleagues found that in 68% of the 255 participating families, both mothers and children reported multiple physical and mental health problems.[12] Specific to HOPE VI, studies of public housing residents have found a population of adults and children in extremely poor health.[13–15]For example, prior to relocation, female African American residents at HOPE VI sites experienced rates of diabetes, depression, asthma, and hypertension that were nearly twice as high as those found in national samples of African American women.[14]Additionally, 9% of HOPE VI parents reported caring for a child in fair or poor health, which is three times the figure for children nationally.[16]Resulting from high rates of both child and adult illness, 45% of HOPE VI households contained at least one member in fair or poor health.[16]

Given that urban African American communities already experience staggeringly high rates of excess morbidity and mortality, it is particularly important to consider the potential health impact of this policy. In order to examine the potential health implications of HOPE VI relocation, we rely on the concept of "weathering," a biosocial process hypothesized by Geronimus[17]to underlie early health deterioration and excess mortality, observed among African Americans, and in particular, African Americans in high-poverty urban areas. Weathering is construed as the cumulative impact of exposure to, and high-effort coping with, subjective and objective stressors, that is, with psychosocial, economic, and environmental stressors. Weathering is thought to be a key contributor to vast racial inequalities in health that increase in size from young adulthood through middle-age.[18]

In considering HOPE VI, there are two ways that its relationship to weathering warrants consideration. First, how did the policy account for or address the particular health and health care needs of an already weathered population? Second, on balance, would such a policy be more likely to exacerbate or mitigate weathering and its impacts on adults and children? The weathering framework suggests that social policies are likely to contribute to weathering and further erode the health of urban African Americans if they (1) negatively affect income, housing, or

neighborhood conditions; (2) fragment or impose new burdens on social support networks or other autonomous institutions that members of oppressed groups develop in order to mitigate or resist the structural constraints that they face; or (3) proliferate demeaning stereotypes about urban African American communities and their residents.[10]

In this paper, we rely on a broad range of literature on HOPE VI relocation to conceptualize these different pathways and their potential contribution to weathering. We first consider whether HOPE VI will ameliorate the material conditions of urban poverty by moving people to healthier environments and providing access to economic opportunities. It is possible that HOPE VI relocation will result in improved health and well-being by providing an escape from areas of concentrated poverty and distressed housing conditions that can contribute to weathering. However, that HOPE VI relocatees enjoy improved living environments cannot be taken as axiomatic. Some have argued that increasing shortages of affordable housing, compounded by discrimination against voucher holders, may limit HOPE VI relocatees to conditions that are not significantly better than those they left behind.[19]

Next, we consider the potential costs associated with moving that may offset any possible benefits of improved environmental conditions. In particular, relocation may disrupt geographically rooted social ties that are anchored within public housing communities and provide psychosocial and material support that can mitigate weathering among their residents.[20–24] Additionally, we consider how HOPE VI may affect a broader discourse on urban poverty and contribute to the perpetuation of structural inequalities. Some analysts have argued that relocation as a "spatial remedy" cannot address deeply rooted structural inequalities that contribute to weathering.[25–27] Furthermore, such spatial remedies may serve to deepen these structural inequalities by perpetuating a discourse that misrepresents the causes of poor health in low-income minority communities.[26] In the final section of the paper, we present existing evidence on the health impacts of HOPE VI relocation and draw on our prior discussion in order to contextualize our findings.

In our review of the HOPE VI literature, we draw primarily on the two existing multi-site studies of HOPE VI relocation: the HOPE VI Panel Study[9] and the HOPE VI Tracking Study,[28] both conducted by researchers at the Urban Institute. The Tracking Study examines post-relocation outcomes among a sample of 818 households from eight HOPE VI sites, 2–7 years after the relocation. The Panel Study is currently the only longitudinal multi-site study of HOPE VI residents. It follows 887 heads of household at five HOPE VI sites where redevelopment began in 2001. Additionally, we utilize data from several single-site studies of HOPE VI relocation.[23,29–36] We also draw insights from in-depth interviews that we conducted with relocated public housing residents in Atlanta, Georgia, and with former Chicago public housing residents who had moved to eastern Iowa in the context of widespread public housing demolition and gentrification.[24,37]

DOES HOPE VI SUCCESSFULLY MOVE PEOPLE TO "HEALTHIER" ENVIRONMENTS?

Several analysts have posited that HOPE VI relocation can ameliorate conditions that contribute to weathering and poor health by helping residents to access healthier housing and neighborhood environments. Many urban public housing developments have suffered greatly from decades of disinvestment and have fallen

into disrepair.[19] Ethnographic studies conducted in public housing communities indicate that these physical conditions are a significant source of stress for public housing residents.[38,39] Additionally, in the high-poverty neighborhoods where the majority of urban public housing developments are located, residents confront a multitude of stressors associated with crime, violence, and lack of resources. Furthermore, in these racially segregated areas, residents must contend with the psychic stress associated with ghettoization.[40] These reasons all suggest that moves to "healthier" neighborhoods would have at least some salutary health effects, although they are also good arguments in favor of public and private investments to improve neighborhood conditions without relocating residents. However, existing evidence on HOPE VI suggests that most relocated residents end up in dwellings and neighborhoods that are, at best, marginally better than those they left behind.

In terms of housing conditions, the HOPE VI Tracking Study and the HOPE VI Panel Study suggest that a significant portion of relocated residents do not experience improvements in housing conditions. Among those who relocated to other public housing developments, in both the Tracking Study and the Panel Study, 60% of respondents reported improved housing conditions after relocation. However, 15% of Tracking Study respondents report worse post-relocation housing.[28,41] Among those who moved to private-market housing, 73% of the Panel Study's respondents reported that their current living conditions were better than those that existed prior to relocation.[41] However, findings from the Tracking Study were less positive, with only 46% reporting better conditions and 16% reporting worse conditions after relocation.[28]

The fact that a significant portion of relocated residents reported worse housing conditions after relocation is worrisome in light of the program's goal to improve housing quality. While HOPE VI was initially intended to fund the nation's most distressed public housing, several analysts have argued that, in fact, distress played only a small role in the allocation of HOPE VI funds. Some analysts have suggested that HOPE VI funds were instead allocated to developments located in areas that could best attract investments from private developers such as gentrifying neighborhoods.[8,42] While many of these developments were in need of updating, they did not fit HUD's own definition of distress, were adequately serving their residents, and were in better condition than many affordable private-market units.[8]

In terms of neighborhood poverty, evidence suggests that some relocated HOPE VI residents experience at least minimal improvements. Among those who moved to other public housing projects, both the Tracking Study and the Panel Study found small declines in the average neighborhood poverty rates (14% and 3%, respectively).[28,43] For those relocating to private-market housing with vouchers, average neighborhood poverty rates declined more substantially (by 17% according to the Tracking Study and 16% according to the Panel Study).[28,43] Additionally, a national study of relocated HOPE VI residents who received vouchers found a 34% decline in average neighborhood poverty rate.[44] Despite these improvements, the Tracking Study finds that nearly 40% of voucher users and nearly 50% of all respondents still lived in neighborhoods that are traditionally classified as high-poverty (more than 30% poor). Several other studies have also documented the reconcentration of voucher users into high-poverty areas.[34,45,46]

The HOPE VI Panel Study also found some improvements in perceptions of neighborhood safety. Among those moving to other public housing, more than half of respondents felt that their new neighborhood was safer than their old one. Additionally, the percent of respondents reporting that drugs were a "big problem"

in their neighborhoods declined from 70% at baseline (2001) to 50% in 2003, although it remained at this level between 2003 and 2005.[47] Improvements in safety were greater among voucher users where, in 2003, 80% reported that their new neighborhood was safer than their old one.[48] Additionally, the portion of voucher users reporting that drugs were a "big problem" decreased from 80% at baseline to 16% in 2005.[47]

However, reports of improved safety were not universal, and some studies have pointed to safety as a major concern for relocated residents. For example, Gibson's[30] study of HOPE VI relocation in Portland found that only 30% of residents felt safer in their new neighborhoods and 18% felt less safe. Venkatesh et al.[34] found that gang tensions and experiences of harassment were prevalent among those who moved into new public housing developments in Chicago. Our own interviews with former Chicago public housing residents described the ways that demolition may have increased violence in and around Chicago public housing communities. As one woman explained,

> They tore the buildings down and put them close together. So all these gangs living on the same block… What do they do? They get into it. They're killing each other, hurting innocent kids that are walking down the street. They made things worse instead of making things better.

Finally, in in-depth interviews with relocated public housing residents in Philadelphia, Clampet-Lundquist[32] found that, while respondents generally felt that there was less violence in their new neighborhoods, many felt more vulnerable to the violence that did occur because they didn't have the protection of a familiar community where, "everyone had your back."

The somewhat more positive findings in neighborhood poverty and safety for voucher users compared with those who moved to other public housing provide some support for the shift to tenant-based rental assistance that the HOPE VI program advocates. However, it is important to note that voucher use itself is highly constrained. Several studies have documented the challenges that public housing residents face in finding rental units to apply their vouchers to.[24,34,49] In tight rental markets, landlords have little incentive to accept subsidized renters. Additionally, well-documented discrimination against voucher holders is likely to further limit rental options.[50] Venkatesh et al.[34] found that, among relocated Chicago Public Housing residents who chose to receive a voucher, 24% were unable to find an acceptable unit. Our own interviews with former public housing residents in Chicago provided firsthand accounts of these challenges. For example, one respondent described a long and frustrating housing search after her public housing building was demolished, stating,

> I couldn't find any place in Chicago that was to the standards for me raising my kids. They had bugs, they had rats, and I refuse to have my kids live like that. And then, everything was just so expensive. And you have some [landlords] in Illinois that were just like, "Ah you've got Section 8. No, I don't want this." Within a year I talked to 18 or 19 landlords. Seriously.

Studies have also documented high levels of residential instability among voucher users.[51] For example, Buron, Levy, and Gallagher[52] found that 40% of voucher users in the HOPE VI Panel Study had moved again within two years of their initial move. Additionally, our own interviews with former public housing

residents in Atlanta and Chicago contained several examples of individuals who were forced to move when their vouchers were revoked on account of a lease violation, eviction, or failure on the part of a landlord to maintain eligibility of their unit. Furthermore, recent budgetary constraints may also threaten the residential stability of voucher users. On account of increasing economic need and in the face of proposed budget cuts, several housing authorities have considered revoking vouchers from current users or reducing the portion of rent that they can cover.[53,54] This potential loss of housing assistance may lead to homelessness, inadequate housing, or increased financial hardship among relocated households.

Finally, while lower-poverty neighborhoods are presumed to be "healthier" and indeed are likely to alleviate specific stressors associated with disadvantage, they may contain new stressors as well. For example, some studies have found that relocated residents face stigmatization from their new neighbors that can be a profound source of stress.[23,24,55]

Additionally, rents in such neighborhoods are likely to be more expensive, requiring families to spend a greater proportion of their income on housing at the expense of other material needs. More socioeconomically advantaged neighborhoods are also less likely to contain resources (such as food banks and discount stores) that low-income families rely on to get by.[56] Furthermore, health care access may become more restricted if relocated residents are unable to find nearby providers who accept them or their children as patients. More affordable sources of care, such as Federally Qualified Centers, are likely to have a reduced presence in their new neighborhoods. Such community health centers have been found to be highly effective in addressing the particular and severe health needs of the urban poor.[57] Barrett et al.[58] suggest that reduced access to health care may be one explanation for the finding that upward neighborhood socioeconomic change in Cook County, Illinois, over the 1990s was associated with an increased risk of metastasis at breast cancer diagnosis. Similarly suggestive, a CDC study found that poor women who resided in socioeconomically advantaged metropolitan areas were less likely to receive screening mammograms than those who lived in higher-poverty areas.[59]

DOES RELOCATION LEAD TO IMPROVED ECONOMIC OUTCOMES?

Another goal of the HOPE VI program is to increase economic opportunities for relocated public housing residents. Proponents of HOPE VI hypothesize that movement away from public housing projects may provide relocated residents with better geographic access to jobs and also with connections to better-employed neighbors who can provide job-seeking assistance, what Briggs[60] refers to as "bridging social capital." Given the well-documented health costs of poverty and its resultant stressors, such increased economic opportunity could protect against weathering.

However, current evidence suggests that HOPE VI relocation has not resulted in significant improvements in economic outcomes. The Panel Study found a small increase in the percent of households earning >$15,000 (from 32–42%) but also indicated that, despite these small increases in income, many voucher users are having difficulty making ends meet on account of increased housing costs.[52,61] Additionally, the Panel Study found that HOPE VI relocation did not result in increased employment rates.[61]

There are several reasons that may explain why HOPE VI was not successful in moving people to economic opportunity. First, despite the goal of moving people closer to jobs, many public housing projects are centrally located near sources of employment and access to public transportation.[8,62] According to Bennett,[63] these characteristics are what made many HOPE VI sites ripe for development and investment in the first place. Second, evidence suggests that interactions between relocated HOPE VI residents and new neighbors are infrequent; thus, the anticipated gains in "bridging social capital" do not seem to be realized.[23] Additionally, data from the HOPE VI Panel Study suggest that relocated residents may be cut off from social ties that serve as important job-seeking resources.[61] Furthermore, relocation may disrupt access to child care from neighbors, family, and friends and thus create new barriers to employment.[24]

WHAT ARE THE HEALTH COSTS OF UPROOTING AND MOBILITY?

The discussion above suggests that, for the majority of HOPE VI relocatees, relocation has resulted in continued economic hardships and little improvement in housing and neighborhood conditions. While these small improvements may reduce exposure to some stressors that contribute to weathering, the health costs of uprooting and mobility may offset any benefits.

Moving, in general, is stressful, and evidence suggests that it may be particularly so for low-income families who are less able to absorb moving expenses.[43] Additionally, as described above, displaced public housing residents face well-documented challenges in their search for replacement housing. It is also important to note that a large portion of HOPE VI relocatees were relocated involuntarily.[64,65] Being forced to leave, often with very little notice, is likely a profound source of stress. As one former Chicago public housing resident states in reference to being told she had six months to move, "Six months! That is like telling you that you have six months to live…Some people couldn't adapt to that."

For many, HOPE VI demolition not only resulted in the loss of a physical home, but it also fractured communities of support in ways that are likely to exacerbate weathering.[10] Geographically rooted social ties have been shown to provide many forms of material, logistical, and psychosocial support for low-income African Americans and to buffer against weathering that is associated with structural disadvantage.[39,66–68]

Qualitative and ethnographic studies of public housing communities reveal that social networks and social organizations serve many important purposes for their residents. For example, Venkatesh's[38] ethnographic study of the Robert Taylor Homes in Chicago found that peer and kin networks provided invaluable resources such as child care and temporary shelter. In an ethnographic study of a public housing development in Tampa, Greenbaum found "…tenant organizations, Saturday reading clubs, crime watch groups, mentoring projects, neighborhood activists and entrepreneurs, and a multitude of intricate informal arrangements for reciprocal services and emergency aid."[22] In public housing developments and other low-income communities, such pooling of resources and exchange of services can mitigate material disadvantage and its health-related sequelae.[39,60,67,69] Among a weathered population where health care needs are often extensive, such networks of exchange can also provide critical support for health and health care.

For example, our interviews with former public housing residents in Atlanta described a common practice of checking in on sick neighbors or exchanging rides to hospitals and clinics.

While these social resources are likely available in many types of low-income communities, some evidence suggests that they are particularly prevalent in public housing. Using the Survey of Income and Program Participation (SIPP), Keene and Geronimus[70] found that, in comparison to other black rent-assisted households, black public housing residents were significantly more likely to report that people in their neighborhood counted on each other, watched each other's children, and had access to help from family nearby. These measures of community-situated social support were associated in the SIPP data with reduced odds of school expulsion among children and reduced food insecurity among adults.

In addition to providing an exchange of goods and services, scholars have described how geographically anchored "homeplaces," which can provide a sense of belonging and collective identity, are often critical protective forces in the context of marginalization.[20] According to Geronimus and Thompson,[26]community-based social ties and extended kin networks provide, for many African Americans, alternative cultural frameworks that serve to contest demeaning and harmful racial stereotypes that pervade dominant cultural institutions. James[68]posits that the health consequences of environmental stress for minority women may depend on the size and strength of their social networks and on their access to such identity-affirming cultural frameworks.

Evidence also suggests that in public housing communities, such "homeplaces" are often important sources of psychological and emotional support.[35] Many public housing residents describe their communities as "families," which are not without problems but valued nonetheless.[35,65] For example, one former Chicago public housing resident from our interviews explained,

> [These are] the people you grow to love. It is like we like a family. I was heartbroken when they tore them down. Because you get to know people. And you become like a family. They not your family, but you grow to love them. And when they get taken away from you because of nonsense, it hurts you.

Indeed, as the quote above illustrates, the demolition of public housing represented a tremendous loss for many public housing residents and has threatened the stability of social support networks. Research suggests that a desire to maintain these networks was one of the primary reasons that residents opposed demolition.[19] It also may explain why many relocated residents remained close to their original developments. According to a national study of HOPE VI relocation, voucher users moved a median distance of only 2.9 miles from their former homes.[44] However, Greenbaum et al.[71] found that moving even a few miles away can be disruptive to social ties, particularly in the absence of adequate transportation. Additionally, evidence suggests that maintaining ties is challenging without geographic anchors of former public housing developments. Our interviews with former public housing residents frequently described losing touch with people after demolition. As one older woman in Atlanta stated, "We was just one big happy family. Now see, now we just scattered. Because I don't know where half of the senior citizens is, that I used to be with." Or as another former Atlanta

public housing residents explained, "After they cut down Herndon Homes, they scattered us then. We can't do but call one another now because we ain't close to one another."

One former Chicago public housing resident, whom we interviewed, explained that things weren't the same without the "big building" that kept people together. He explained,

> In your own mind it's a tragedy, because you probably don't ever see these people again, because you being put here and here and you all was always like a family when you was there. But now, you guys can't be in a big building together, running house to house getting butter and milk.

In addition to separation from old ties, research indicates that relocated residents face many challenges to social integration in their new neighborhoods. For example, Clampet-Lundquist[29] found that the majority of relocated residents from one Philadelphia development had not created new local social networks two years after relocation. Greenbaum et al.[23] found that, in the context of widespread stigmatization from new neighbors, relocatees formed few ties in their new neighborhoods.

With few new ties formed and old ties lost, evidence suggests that HOPE VI relocatees experience increased social isolation and, in the absence of support networks, face new day-to-day challenges. Multiple studies have found that relocated HOPE VI residents report fewer neighboring behaviors and reduced access to supportive social relationships after relocation.[35,51,71] Our interviews with former public housing residents in Atlanta found that, in their new homes, relocated residents often had to pay for resources that social networks had previously provided. For example, one older woman described the challenges of procuring transportation in her new apartment complex. She says, "Go to the doctor, I gotta pay. Gotta go to the grocery, I gotta pay."

In addition to these day-to-day practical losses, HOPE VI demolition has likely disrupted the political power and collective agency that exists in geographically rooted social networks of the poor.[23] For example, literature has documented the important role that tenant organizations and other sources of community activism play in public housing communities.[72] In many cases, such organizations have actively (and sometimes successfully) resisted HOPE VI redevelopment itself.[73] By disrupting the integrity of these organizations, HOPE VI has likely undermined the ability of public housing communities to advocate for their collective rights and to pose collective challenges to those structural conditions that serve as fundamental determinants of weathering and poor health.[6,23,74]

Finally, studies suggest that demolition and uprooting can produce profound psychological trauma. For example, Fullilove's[21] interviews with African Americans who were displaced by earlier urban renewal initiatives found expressions of grief and loss that related not only to the razing of homes and communities, but also to a loss of identity that was closely tied to place. Our own interviews with former Atlanta public housing residents revealed similar stories of grieving, loss, and depression after relocation. As one former Atlanta public housing resident stated,

> [After relocation] a lot of them was depressed. Cause I was. I'll tell you the truth, I got homesick. I tell you the truth. Because I stayed there so long.

Several participants in our Atlanta interviews even blamed relocation for the prevalence of death among relocated elders. For example, one participant explained,

> I think it was grief. Because we had said that anyway. That when they move, them peoples, you know, were going to sit up grieving and they were going to grieve themselves to death. Because they didn't want to move.

Or as another respondent explained,

> We done had some neighbors, older neighbors, you know, they tell you start moving the old people around, they pass… They uproot the old peoples and they have died. I'm serious. They [say], "we don't want to go. We don't want to." They got their flowers, their plants…. They got all their little pictures of the children and everything. They feel secure because people knew them.

HOPE VI AND THE DISCOURSE OF URBAN POVERTY

The potential consequences of relocation for the stability of collective social resources is largely absent from HUD's official literature on HOPE VI. This oversight may not only undermine the program's ability to benefit relocated families but may also reflect and reinforce harmful stereotypes of low-income urban African American communities that are health-demoting. This is because lack of attention to social rootedness implicitly reinforces conventional wisdom that views the social relationships of the poor as impediments to, rather than protectors of, their well-being. If according to Bennett and Reed, "We assume that poor people suffer most from bad individual behaviors stemming from moribund social networks…improving people's social condition requires altering their patterns of behavior and interaction by dispersing them through neighborhoods in which the very poor do not predominate."[72] If, instead, we validate the socially situated resources available to public housing residents, acknowledging what might be lost in addition to what may be gained from popular public housing strategies, we will lessen the possibility of policy-induced stigmatization or "othering" of public housing residents that can have adverse psychosocial impacts on their health.

Additionally, the discourse surrounding the HOPE VI program largely obscures the fact that the conditions in and around public housing developments did not arise organically but resulted from specific policies and practices of exclusion and disinvestment.[75] For example, the official literature surrounding HOPE VI does not discuss the pervasive forces of racial segregation and institutionalized discrimination that have constrained opportunity for many public housing residents. Without consideration of this structural context, public housing communities and disadvantaged neighborhoods are often constructed as the product of the presumed pathological behaviors and practices of their residents, thus reinforcing popular notions of places that are not only materially disadvantaged but also morally and culturally depraved.[23]

The perpetuation of such negative stereotypes of urban African American communities and their residents are likely to contribute to weathering through their impact on many important determinants of health and well-being.[10] For example, the pervasiveness of these stereotypes produce threatening contingencies of social identity for poor blacks in many settings, which can threaten their academic and

work performance.[76] Encountering threatening contingencies of social identity can, in the moment, activate physiological stress processes that, over time, may exacerbate weathering.[18,77] In addition, these stereotypes affect the decisions of health care providers[78] and the hiring practices of employers.[79,80] They may also weaken public and political support for initiatives that invest in the health and well-being of urban African American populations.[81] Finally, the construction of urban communities as valueless and pathological places has served to justify their removal from urban space that has become an increasingly valued commodity, paving the way for the revitalization and gentrification of many urban areas through uprooting of original residents.

WHAT ABOUT CHILDREN?

One might imagine that relocation, whatever its impacts on adult health, would ultimately be better for children's health as they grow up in better quality housing and in neighborhoods that are less disadvantaged. However, as discussed above, evidence suggests that many HOPE VI families do not experience significant improvements in neighborhood and housing quality. In addition, adult and child health within families cannot be neatly separated. Parents' mental and physical health has established impacts on child health.[82,83] Additionally, given that maternal health affects children beginning in utero, the impact of relocation on children yet to be born will be in part determined by the health of their mothers.[84,85]

For the significant portion of HOPE VI children who are already ill[16] upon relocation, the relative lack of proximate or affordable health services in the new residential areas of many HOPE VI families may pose special challenges. If poor mothers are stretched thinner in the context of fragmented social support networks, they are also less likely to attend to their own health care needs, even when services exist.[86] This increases the chances that primary care givers will suffer health-induced functional limitations that may compromise the health and well-being of children in their charge and increases the possibility that children will be orphaned.[87]

Additionally, a large body of existing evidence suggests that relocation can be difficult for children, disrupting relationships with peers, educators, and other important adults.[47] In-depth interviews with relocated HOPE VI children and adolescents suggest difficulties with peer integration that may marginalize children and put them at risk for association with more delinquent peers.[33,88] HOPE VI children may also be affected by changes in the social relationships of their parents. For example, Clampet Lundquist[33] found that parents' loss of social networks after HOPE VI relocation led to significant decreases in intergenerational closure (extent to which parents know their children's friends' parents). The fragmenting of social networks may affect children's access to care and supervision. As noted above, in an analysis of SIPP data, Keene and Geronimus[70] found that black public housing residents reported greater access than other black rent-assisted households to forms of community support that reduced odds of school expulsion among children.

WHAT DO WE KNOW ABOUT RELOCATION, HEALTH, AND WELL-BEING?

The discussion above elaborates the various pathways by which relocation induced by the HOPE VI program may contribute to weathering and poor

health among urban and predominantly African American public housing residents. It is not possible to observe what the long-term impacts of these processes will be on a population and community level, but short-term data collected over the past decade can provide some indication of the more immediate health impacts.

To date, the only published evidence directly examining the health effects of HOPE VI relocation is derived from the HOPE VI Panel Study. The Panel Study does not include a control group, and therefore, we cannot definitively attribute any observed health changes to relocation. Nonetheless, its findings point to health as major concern for relocated residents as the extremely poor health that was observed at baseline seems to be worsening rapidly over time.[14] At the Panel Study's 4-year follow-up, 76% of respondents reported no change or a negative change in their self-rated health and the proportion of respondents reporting a need for ongoing medical care increased by 9%.[14] Interestingly, despite the fact that voucher users experienced the greatest improvements in neighborhood and relocation outcomes, they were as likely as those living in public housing to report poor health. At the 8-year follow-up of the Panel Study's Chicago site, respondents' health has continued to deteriorate rapidly.[89] For example, in 2009, 51% of respondents identified their health as poor or fair, which represents a 14% increase since 2001. Fifty-four percent reported having an illness requiring ongoing care, a 10% increase from 2005.[89] These findings may, in part, reflect weathering with age that would have occurred even in the absence of relocation. However, when age-specific trajectories for self-reported health among Chicago residents from the HOPE VI Panel Study were compared with a national sample of black women, marked health declines were observed between 2001 and 2009 among the HOPE VI sample, while the health of the national sample remained stable during this time period.[89] For example, among Panel Study adults aged 65+ years, the amount reporting poor or fair health increased from 45–65% between 2001 and 2009. In contrast, among the general population, it remained stable at 22%, and among a national sample of black women, it remained stable at 42%.[89]While this may, as the authors of the study suggest, reflect the inability of relocation to "undo the damage" that has accrued from years of living in a stressful environment, these findings may also suggest some weathering that has occurred secondary to relocation.

The one more consistent positive adult health finding from the Panel Study is that relocated Chicago residents reported a significant reduction in anxiety and worry between 2005 and 2009.[89] This finding may be a result of the moderately improved living conditions and neighborhood safety described above, or, given that the study began following participants in 2001, it may reflect the fact that by 2009 respondents' are no longer coping with the immediate stressors related to the relocation experience.

There is little evidence on how HOPE VI relocation has affected the health of children. However, the Panel Study observed high rates of asthma and overall poor health among HOPE VI children at baseline and did not find any improvements in child health at follow-up. It is possible that the lack of improvements to health and well-being among HOPE VI relocatees may result from the program's lack of success in relocating individuals to significantly improved environments. However, studies of HOPE VI relocation have found that improvements in neighborhood conditions are not statistically related to improvements in individual-level outcomes.[90] Additionally, the fact that adult voucher users appeared to have equivalent health

declines, despite moving to more advantaged neighborhoods suggests that this may not be the case.

The Moving to Opportunity Program (MTO), a randomized control study which mandated moves to lower-poverty neighborhoods, can also provide insight into this issue. MTO participants were randomized into three groups: a control group, a Section 8 group who received a voucher to relocate to a unit of their choice, and an experimental group who received a voucher that could only be used in low-poverty census tracts. Despite the substantial improvements in neighborhood poverty experienced by MTO movers in the experimental group, the health outcomes have been mixed.[91] For example, at the 5-year follow-up, adults in both the Section 8 and experimental groups experienced large, statistically significant improvements in mental health compared with the control group, and this improvement was systematically related to declines in neighborhood poverty. The 5-year follow-up data were also suggestive of reductions in obesity among those in the experimental group.[92] However, there was no effect on overall health, asthma, hypertension, or physical limitations in either the Section 8 or experimental group compared with the control group.[92] Additionally, analyses of child health outcomes suggest potential adverse effects of relocation. Fortson and Sanbonmatsu[93] found that, in 2001, the probability of having an asthma attack was significantly higher among experimental group children compared with control group children. Additionally, they found that children in the Section 8 group were significantly more likely to have poor or fair overall health when compared with the control group. Finally, the data for adolescent MTO participants point to important gender differences in the effect of moving. While females in both the Section 8 and experimental groups experienced significant improvements across indicators of mental health and health behaviors, male adolescents in these groups experienced large and significant increases in risky behavior and injuries compared with male adolescents in the control group.[92]

The lack of universally positive findings among MTO participants is concerning, given that, for several reasons, one would expect their experience to provide an upper bound on the health improvements that could be expected in the context of HOPE VI. First, MTO's eligibility criteria, which limited the program to families who were up-to-date on their rent payments and who did not have a criminal record, is likely to exclude the neediest families who may suffer worse health and face more challenges with relocation. Second, in contrast to HOPE VI, MTO is a voluntary program; 50% of eligible households volunteered to participate. Based on this low participation rate, there is reason to suspect that MTO participants may have been better positioned to benefit from relocation than other public housing residents. Finally, MTO participants moved away from communities that, in most cases, remained intact. In contrast, relocated HOPE VI residents not only moved away but also lost the geographic anchors of communities and social relationships through the demolition of their public housing developments.

In this sense, the largely involuntary relocation and community dispossession that are induced by HOPE VI may more closely resemble the experience of large-scale uprooting that occurred as a result of urban renewal initiatives in the 1960s and 1970s.[5] A significant body of literature has documented the profound and reverberating consequences of such programs for the health of African American communities. For example, Wallace and Wallace[94] found that

"planned shrinkage," a process of housing loss that displaced and disrupted low-income communities in the Bronx during the 1970s, was associated with the subsequent spread of intravenous drug use and HIV.

CONCLUSIONS

The discussion above suggests that relocated HOPE VI residents have experienced few improvements to the living conditions and economic realities that are likely sources of stress and illness among this population. In the face of these findings, some analysts have proposed changes to the implementation of HOPE VI so that the program can better reach its goals of moving public housing residents to improved environments and economic opportunities.[95] However, our discussion above points to significant potential costs associated with relocation, per se. In particular, relocation has threatened geographically rooted social ties that can mitigate the health consequences of structural disadvantage and protect against weathering. Access to health care may also be diminished in post-relocation communities. Additionally, many relocatees must contend with psychological trauma associated with community dispossession and uprooting. Finally, the discourse surrounding HOPE VI may reinforce harmful stereotypes of urban communities that negatively affect the health and well-being of their residents. From the perspective of the weathering framework, these realities suggest that HOPE VI will result in little alleviation of stressors that are a source of poor health for low-income African Americans and is likely to further imperil health through the dissolution of mitigating resources. While it is not possible to observe what the long-term consequences of HOPE VI will be for the health and well-being of displaced individuals, existing evidence suggests that there have been short-term costs.

In the discussion above, we do not intend to suggest that the conditions in public housing should be left as-is or to argue that existing public housing developments are good or even acceptable places to live. Indeed, the conditions in these developments and the neighborhoods around them have suffered from decades of disinvestment. However, the evidence above does suggest a need for strategies of public housing revitalization that improve the physical conditions of federally owned projects but also maintain the opportunity for current residents to remain in them. For example, recent congressional testimony recommends legislative proposals that protect the rights of original tenants to return to revitalized developments and a reinstatement of the federal one-for-one replacement statute that was repealed in 1995.[96] Most importantly, strategies of public reinvestment in decayed urban neighborhoods should recognize the existence and importance of social support resources in these areas. Such investments would do well to build on these existing resources to create healthy communities rather than undermining them further through housing demolition and displacement. Community participation would also help ensure the success and sustainability of revitalization efforts.

The HOPE VI program has played an important role in a broader shift away from project-based assisted housing. Cities such as Chicago and Atlanta, for example, received HOPE VI grants to revitalize a select number of public housing developments in the 1990s, but in the last decade have taken on more drastic plans, demolishing a large portion of their public housing stock.[97,98] This more widespread demolition of public housing may have serious consequences for population health. Even advocates of the HOPE VI program have acknowledged that market-based

assistance in the form of vouchers may leave some public housing tenants without options, particularly those who have large families or who are coping with mental and physical disabilities.[95] Additionally, current threatened cuts to the voucher program may lead to displacement among voucher users. Absent from many studies of HOPE VI relocation are the experiences of those individuals who fall through the cracks of the private-market system. The consequences of public housing demolition for individuals who end up homeless or doubled-up with family members, or who have to make long-distance moves (such as the participants in our study, who moved from Chicago to Iowa) are important to understand.

It is also important to note that the consequences of HOPE VI era displacement will likely compound the cumulative effect of serial displacement that has occurred in African American communities. As Wallace and Fullilove[5] argue, this "serial displacement" has played a fundamental role in the ecology of disease and can be considered a primary determinant of the vast and persistent unequal burden of morbidity and mortality that is shouldered by low-income African American communities such as public housing residents. Housing advocates for the poor have frequently voiced concerns about a history of harmful policies that is repeating itself in the USA.[8] In light of existing evidence as well as concerns following from the weathering framework, the belief that poverty deconcentration alone will inevitably and on balance lead to improvements in the health of urban African Americans must not substitute for careful health impact analysis of proposed housing policies. Distinctions should be made between policies that promote equitable growth and those that focus on gentrification or downtown redevelopment but do not benefit original residents. Given that urban housing policies may have negative consequences for the health of an already weathered population—perhaps even disastrous ones—it is critical that a health equity perspective be added to these policy conversations.

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