

Community-Based Support among African American Public Housing Residents

Danya E. Keene and Arline T. Geronimus

ABSTRACT *Recent shifts from federally owned public housing toward tenant-based housing assistance in the form of vouchers raise important questions about the health and wellbeing of rent-assisted households. In particular, little is known about how these shifts in housing policy will affect access to critical sources of community-based social support among those who receive rent assistance. Using the Survey of Income and Program Participation, we estimate the relationship between residence in a federally owned public housing project and the reported presence of social support among a nationally representative sample of blacks who receive rent assistance. We find that in comparison to other rent-assisted households, public housing residents are significantly more likely to report that people in their neighborhood count on each other, watch each other's children, and have access to help from a family nearby. We also find that these measures of community-situated social support are associated with reduced odds of school expulsion among children and food insecurity among adults. In conclusion, we find evidence suggesting that public housing communities contain social resources that are important to the wellbeing of their residents and are less accessible to other rent-assisted households.*

KEYWORDS *Minorities, Public housing, Social support*

INTRODUCTION

Over the last 15 years, the nature of federal housing assistance in the United States has undergone dramatic changes. As a result of public and political dissatisfaction with public housing projects and an increasing emphasis on poverty deconcentration, public housing projects are rapidly being replaced by other forms of rental assistance such as housing vouchers that provide rent reductions for private market units.^{1,2} Not only did the construction of federally owned public housing come to a halt in the 1980s, but more recent US Department of Housing and Urban Development (HUD) programs have funded the demolition of existing developments. In particular, the HOPE VI program, launched in 1992, has funded the demolition of nearly 100,000 public housing units at over 200 sites.³ While many of these units have been redeveloped, the HOPE VI program has resulted in a net loss of nearly 50,000 units available to very-low-income households.³ In this sense, HOPE VI has contributed to the broader goal announced by HUD in 1995 of eventually replacing all public housing developments with voucher-based assistance.⁴ While public housing in this country serves a racially diverse population, recent demolition initiatives have particularly targeted predominantly black public housing developments in large urban areas.⁵ For example, HUD estimates indicate

Keene and Geronimus are with the University of Michigan, Ann Arbor, MI, USA.

Correspondence: Danya E. Keene, University of Michigan, Ann Arbor, MI, USA. (E-mail: danyak@umich.edu)

that 95% of those displaced by HOPE VI between 1993 and 2001 were persons of color and 79% were African American.⁵

Some have argued that the shift away from public housing has occurred without evidence supporting its benefit for the health and wellbeing of public housing residents.^{4,6,7} Conditions in and around many public housing communities are without a doubt in need of improvement, particularly as a result of cuts to maintenance budgets that have left many buildings in disrepair and persistent urban poverty and unemployment that have contributed to neighborhood crime.^{2,8} However, some have argued that these conditions are no worse than what is available to low-income families in the private market.⁵ Additionally, advocates of public housing demolition have often failed to consider the positive aspects of public housing communities that may be lost as buildings are demolished and residents are dispersed. For example, a significant body of ethnographic literature has documented the important role that social networks and community-based social support resources play in specific public housing communities.⁸⁻¹² Public housing residents in these studies describe not only networks of mutual assistance and material exchange, but also a sense of community that is rooted in trust, common goals, and shared challenges.^{11,13,14} This community-situated social support may be more accessible to residents of public housing projects than to other low-income families as a result of the greater residential stability that exists in federally owned projects¹⁵ and on account of tenant organizations that provide unique opportunities for collective organizing and social interaction.⁹

The important contribution of social integration to health is well-established^{16,17} and some research suggests that the health benefits of social integration are significant and may rival in strength the health costs of known risk factors such as cigarette smoking.¹⁸ A large body of literature has documented the important role that social networks play in providing material and psychosocial support^{19,20} and buffering against the health consequences of stress.²¹ In low-income communities such as public housing developments, ethnographic literature indicates that the pooling of risks and resources across social networks is a critical survival strategy employed to mitigate the health costs associated with limited economic opportunity.^{12,19,20}

Research indicates that support from family, friends and neighbors may be particularly significant for the health and wellbeing of black Americans, serving as an important resource for coping with race-related stressors and providing identity-affirming alternatives to the dominant cultural frameworks which often marginalize them.²² James²³ posits that the manner in which low-income black Americans respond to race-related environmental stressors may depend on the size and strength of their social networks and their access to such alternative cultural frameworks. Thus, policies that threaten the integrity of social support resources may have a particularly significant effect on the health of low-income black Americans, who as a population already shoulder a disproportionate burden of morbidity and mortality.²² Additionally, research suggests that black Americans may face added challenges in the private rental market on account of racial biases among prospective landlords.^{24,25} In light of these reasons, and given that black public housing residents have been disproportionately affected by public housing demolition, it is particularly important to better understand the impact of recent policy shifts on the health and wellbeing of black public housing residents.

The goal of this study is to add to our understanding of how recent shifts in federal housing policy may affect black public housing residents by examining the

association between type of rental assistance and community-based social support. Specifically, we use data from the Survey of Income and Program Participation (SIPP), which provides a nationally representative sample of rent-assisted households, to examine the association between housing-assistance type and reports that neighbors count on each other, watch each other's children, help each other out, can trust each other to intervene in the face of danger or harm, and have access to help from friends to family. Our central hypothesis is that public housing residents will report greater access to social support than other rent-assisted households. While several studies have documented the presence of social support resources in specific federally owned public housing projects,^{8,9,11} the current study is the first to provide quantitative measures of these resources in a nationwide sample. Additionally, in order to determine the significance of the SIPP social support measures for the well-being of our particular study population, we examine the relationship between the above measures of social support and food insecurity and child education outcomes, indicators of wellbeing that are available in the SIPP.

METHODS

Data

We use data from the 1996 to 2001 panels of the Survey of Program Participation. The SIPP, conducted by the US Census Bureau, is a stratified probability sample of US households whose main objective is to provide accurate and comprehensive information about the income and program participation of individuals and households in the United States.²⁶ Participants in each SIPP panel are interviewed every 4 months, producing 12 waves of data over 4 years for the 1996 panel and 9 waves of data over 3 years for the 2001 panel. For the 1996 and 2001 panels, the retention rates for the final waves of data are 65.5% and 70%, respectively.²⁶

A set of core questions (pertaining to income, expenditures, program participation, and residence) is repeated at each interview, and a set of unique topical questions are asked once (occasionally twice) during the multi-year panel period. Our analyses rely on 2 cross-sectional SIPP samples. The first uses data from the SIPP's child wellbeing questionnaire, which was administered in wave 12 of the 1996 panel and wave 7 of the 2001 panel. This file contains parents' assessment of community support in their neighborhood and information on educational outcomes for their children. The second sample uses data from the SIPP's adult wellbeing questionnaire which was administered in wave 8 for both the 1996 and the 2001 panels. The adult wellbeing file contains questions about access to help from family and friends and also information about food insecurity. Table 1 describes the content and organization of the adult and child wellbeing files.

While the SIPP surveys over 35,000 households in each panel, we analyze data from a small subsample of SIPP participants who receive housing assistance and self-identify as black. For analyses that utilize the adult wellbeing file, we limit our analyses to heads of households, the only SIPP participants who are asked questions about access to help. For these analyses, our final sample size is $N=905$. For analyses utilizing the child wellbeing file, we further limit our sample to the designated primary guardians of children, the only SIPP participants who are asked questions about community-based support. For these analyses our final sample size is $N=454$ adults and $N=831$ children ages 5–17. The 1996/2001 SIPP is ideal for this analysis, not only because it includes one of the largest samples of public

TABLE 1 Content and organization of SIPP topical files

	1996	2001	Sample frame	Sample size for black rent-assisted households (N)
Child wellbeing file				
Questions about community-support resources	Wave 12 (08/99–02/00)	Wave 7 (02/03–05/03)	Primary guardians of children <20 years old	509
Questions about grade repetition	Wave 12	Wave 7	Children ages 5–17 years	831
Questions about expulsion	Wave 12	Wave 7	Children ages 12–17 years	343
Adult wellbeing file				
Questions about access to help from friends to neighbors	Wave 8 (4/98–10/98)	Wave 8 (06/03–09/03)	Heads of households	905
Questions about food insecurity	Wave 8	Wave 8	Heads of households	905

housing residents of any social demographic survey, but also because it captures a snapshot of public housing during the early phase of the significant transformations that have occurred over the past decade and a half.

Measures

The core files for all SIPP waves contain measures of public housing residence (“Is this unit in a public housing project, that is, is it owned by a local housing authority?”) and rent assistance, (“Is the federal, state or local government paying all or part of the rent for this unit?”). The core files also contain demographic variables that we include as controls in our analyses including, education (for our analyses, categorized as no high-school degree, high-school diploma or equivalent, and at least some college) marital status (for these analyses, dichotomized as married versus not married) and income. We use a measure of total monthly household income that is calculated as an average of the total household income reported for the 4 months of data provided in each SIPP wave. Finally, we use a measure of total household size that is also averaged across 4 months of data.

The SIPP child wellbeing files contain several measures that are useful for assessing community-based support. SIPP primary guardians are asked questions about their neighborhoods including, “Are there people in this neighborhood/community that you can count on?”; “Do people in this neighborhood help each other out?”; “Do people in this neighborhood watch each other’s children?”; and “If something happened to your child, would there be someone who you would trust to help out.” Each of these items is measured on a 1 to 5 scale, where 1=strongly agree, 4=strongly disagree, and 5=no opinion. We recoded this item so that “no opinion” was a neutral category (3) and so that higher values correspond with greater agreement (5=strongly agree). We also ran additional analyses utilizing a 4-item scale that omits the no-opinion category (10–13% of the sample for each item).

In the SIPP adult wellbeing file, the reference person from each household is asked about access to help from family and friends. These items include, “If you had a problem with which you needed help, how much help could you expect from a family nearby?” and “If you had a problem with which you needed help, how much

help could you expect from friends?” Both were measured on a 1 to 4 scale, where 1=“all of the help I need” and 4=“no help.” We reverse-coded these items so that higher values refer to a greater expectation of help. While these latter measures are not direct assessments of neighborhood support resources, they provide information about access to social support that may be associated with residence in a public housing project. Additionally, by including the qualifier “nearby,” the family support item may be a good indicator of geographically proximate support resources.

We use 2 measures; of child and adult wellbeing in our analyses. From the child wellbeing file, we include measures of whether or not a child has ever repeated a grade (available for ages 5–17 years) or has ever been expelled or suspended from school (available for ages 12–17 years). Other studies have shown that aggregate measures of perceived neighborhood support are associated with reduced rates of expulsion, suspension, and grade repetition.²⁷ Such positive educational outcomes not only provide a measure of child wellbeing, but may also reflect a well-functioning household where elders are able to provide more support and supervision. From the adult wellbeing file, we use a measure of food insecurity, assessed on a 4-point scale (1=“we have enough of the kinds of food we want” and 4=“we often do not have enough to eat”). Through the pooling of risks and resources,^{19,20} access to help from family and friends may protect individuals from food insecurity, which has been associated with poor health outcomes.²⁸ While the above measures are not direct assessments of health, they do capture wellbeing more broadly and are available in the SIPP waves that we utilize. The SIPP does include a measure of self-rated health in its disability file (wave 11 for 1996 and wave 7 for 2001). However, because this measure was not assessed simultaneously with either the adult or child wellbeing files, we did not include it in our analyses.

Analyses

In the first set of analyses, we use ordered logistic regression models to predict social support measures as a function of public housing residence among a sample of black adults who receive rent assistance. As described above, the community support measures are assessed on a 1–5 scale and the access to help measures are assessed on a 1–4 scale. Given that our entire sample qualifies for and receives rental assistance in some form, the public housing and non-public housing groups are inherently well matched. However, in all models we include controls for observable characteristics that differ slightly between these groups and may be related to social support including; age, gender, marital status, educational attainment, total monthly household income, and household size. We also include a control variable designating whether or not an individual resides in a Metropolitan Statistical Area, given that urbanicity may be related to both social support and housing type. Finally, we include a control variable for panel (1996 or 2001) to take into account the possibility that public housing conditions may differ between these 2 time periods.

For those social support measures that are significantly related to housing type, we conduct a second set of analyses examining their relationship with measures of wellbeing. Firstly, we use logistic regression to predict grade repetition and expulsion or suspension (among children) as a function of community-based social support. These models contain controls for public housing residence, panel, child’s age, child’s sex, guardian’s age, marital status, guardian’s educational attainment, household income, household size and metropolitan status. Secondly, we use

ordered logistic regression to predict food insecurity (assessed on a scale of 1–4) as a function of access to help. These models contain controls for public housing residence, marital status, education, age, gender, household income, household size, and metropolitan status.

For all analyses, we use balanced repeated replication (BRR) with Fay's correction in order to account for the SIPP's complex sampling design.²⁶ In the case of the child outcomes, BRR also allows us to adjust for the non-independence of children in the same household. Additionally, for analyses utilizing ordered logistic regression, we test for violations of the proportional odds assumption confirming that the relationships between each pair of outcome groups do not differ significantly.²⁹

RESULTS

Table 2 describes sample characteristics of the “public housing” and “other rent-assisted” groups. There are few statistically significant ($p < .05$) differences between the 2 groups on observable demographic characteristics. However, in the adult wellbeing sample, public housing residents are significantly more likely to hold a high-school degree and have significantly smaller household sizes. This may be due to the fact that the adult wellbeing public housing sample contains some residents of senior complexes who are likely to be more socioeconomically advantaged and are less likely to have children living with them. For all measures of community support and access to help, public housing residents have higher mean values than other rent-assisted households and 3 of these relationships are statistically significant at $p < .05$.

Table 3 reports proportional odds ratios from ordered logistic regression models that predict community-support measures as a function of rental assistance type. The odds ratios indicate that in comparison to other rent-assisted households, public housing residents are more likely to report access to social support. This effect is particularly strong for the items, “there are people I can count on in this neighborhood,” “we watch each other's children,” and access to “help from family nearby.” For public housing residents (compared with other rent-assisted households), the odds of each higher level of agreement with the statement “we watch each other's children” are 1.54 times greater, holding all other variables in the model constant. Likewise, for public housing residents (compared with other rent-assisted households), the odds of reporting each higher level of help from family nearby are 1.30 times greater. These relationships are statistically significant at $p < .05$. Public housing residence is not a statistically significant predictor of the other 2 measures of social support although odds ratios are greater than 1.

Table 4 presents results from the second set of analyses which seeks to determine the significance of the SIPP social support measures for wellbeing. The first 2 columns report educational outcomes as a function of the community-support measures that were found to be significant in Table 3. Both measures of social support are associated with significantly lower odds of being expelled from school, but are not significantly related to grade repetition. The last column reports food insecurity as a function of access to help from family nearby. For each level increase in reported access to help from family nearby, the odds of reporting greater food insecurity are reduced by 0.78, holding all other variables in the model constant.

TABLE 2 Sample characteristics (weighted and adjusted for sampling design)

	Child wellbeing file (only primary guardians)			Adult wellbeing file (all household heads)		
	Public housing	Other rent assisted	p Value ^a	Public housing	Other rent assisted	p Value ^a
	N=310	N=199		N=592	N=313	
Mean age	32.2 (0.55)	33.3 (.67)	0.21	43.9 (0.74)	41.8 (0.85)	0.06
Married (%)	0.08 (0.08)	0.11 (0.11)	0.43	0.11 (0.01)	0.13 (0.02)	0.52
Female (%)	0.98 (0.01)	0.97 (0.01)	0.57	0.82 (0.02)	0.85 (0.02)	0.39
Mean monthly HH income	1,303.85 (89.11)	1,427.89 (92.88)	0.34	1,103.8 (52.7)	1,175.56 (62.6)	0.38
Mean HH size	3.80 (0.09)	3.97 (0.13)	0.29	2.61 (0.07)	2.94 (0.11)	0.02
With HS degree (%)	0.70 (0.03)	0.70 (0.03)	0.96	0.71 (.03)	0.59 (0.02)	0.00
Metropolitan area (%)	0.85 (0.03)	0.86 (0.02)	0.47	0.90 (0.02)	0.85 (0.02)	0.03
Mean response: people count on each other	3.40 (0.07)	3.12 (0.09)	0.01			
Mean response: watch each other's children	3.41 (0.07)	3.14 (0.09)	0.02			
Mean response: help each other out	3.24 (0.07)	3.05 (0.09)	0.10			
Mean response: trust each other to intervene	3.60 (0.07)	3.43 (0.08)	0.11			
Mean response: help from family nearby				2.94 (0.05)	2.79 (0.06)	0.05
Mean response: help from friends nearby				2.63 (0.05)	2.53 (0.06)	0.17

^aComparing black public housing residents with other rent-assisted households. Calculated using two-sided t test, weighted, and adjusted for sampling design

TABLE 3 odds ratios of social support measures as a function of rental-assistance type (public housing vs. other rent assisted)

	Unadjusted	Adjusted
Child wellbeing sample	<i>N</i> = 509	<i>N</i> = 505
There are people I can count on	1.56* (1.05–2.31)	1.57* (1.04–2.36)
We watch out for each other's children	1.54** (1.16–2.05)	1.58** (1.15–2.15)
If my child were outside playing and got hurt or scared, there are people I trust to intervene	1.35 (0.91–1.99)	1.35 (0.90–2.04)
People in this neighborhood help each other out	1.35 (0.97–1.88)	1.34 (0.95–1.91)
Adult wellbeing sample	<i>N</i> = 905	<i>N</i> = 903
How much help would you expect to get from family nearby	1.38** (1.08–1.76)	1.30* (1.01–1.67)
How much help you expected to get from friends	1.21 (0.94–1.55)	1.17 (0.90–1.53)

The unadjusted model includes only a control for panel year. The adjusted model includes controls for age, sex, educational attainment, household income, household size, metropolitan status, and panel (1996 versus 2001). All models are adjusted for sampling design using balance repeated replication weights with Fay's correction

** $p < .01$; * $p < .05$

Sensitivity Analyses

We also ran sensitivity analyses (results not shown) to evaluate the robustness of our findings. In these analyses, we omitted the “no-opinion” category for the community-based social support measures and utilized the resultant 4-item scale. For analyses predicting social support as a function of public housing residence, odds ratios were slightly larger than those we report in Table 3. Additionally, one measure, “people in this neighborhood help each other out” was significantly associated with the 4-item measure, but not with the 5-item measure that we use in this paper. The 4-item measure also produced slightly stronger relationships between community support and educational outcomes. Ultimately, we chose to use the more conservative 5-item measure which includes a larger portion of the SIPP sample and is thus less subject to non-response bias.

TABLE 4 Odds ratios of wellbeing measures as a function of social support

	There are people I can count on... ^a	We watch out for each other...	Access to help from family nearby... ^b
Odds of repeating a grade (ages 5–17 years); <i>N</i> = 831	0.83 (0.66–1.04)	0.91 (0.71–1.15)	
Odds of being expelled from school (ages 12–17 years); <i>N</i> = 343	0.65** (0.49–.91)	0.72* (0.54–0.97)	
Odds of not having enough to eat; <i>N</i> = 905			0.78** (0.68–0.88)

^aAll models include controls for panel, public housing status, parents' marital status, parents' education, parent's age, child's sex, child's age, household income, household size, and metropolitan status

^bOrdered logistic regression models include controls for panel, public housing status, marital status, education, age, sex, household income, household size, and metropolitan status

** $p < .01$; * $p < .05$

DISCUSSION

Using a sample of black rent-assisted households from the Survey of Income and Program Participation, we find that in comparison to other rent-assisted households, residents of federally owned public housing developments are more likely to report access to several measures of social support. These findings are consistent with several ethnographic studies of specific public housing developments that have documented the presence of community-based social resources in these settings.^{8,11,12} We also find that some measures of social support are associated with significantly lower rates of expulsion or suspension among children and reduced odds of food insecurity among adults.

Many questions remain with regards to the mechanisms underlying the associations between public housing residence and social support that are observed in this study. One possibility is that public housing residence provides greater residential stability than other forms of housing assistance and this stability in turn facilitates the development of social relationships. HUD data indicate nearly twice the length of residence for public housing residents compared with voucher users¹⁵ and existing research suggests that residential stability may be protective against the deleterious effects of neighborhood disadvantage through increased access to social support.³⁰ Unfortunately, data limitations restrict our ability to accurately assess the potential mediating role of residential stability in this study. While the SIPP does collect information about length at current residence, this question was asked only in wave 2 (1 to 2 years prior to when the items we utilize were asked). A significant portion of individuals had moved during this lag time, making it difficult to obtain an accurate measure of residential tenure. Crosstabs of public housing residents-versus other rent-assisted individuals in the wave 2 sample do indicate a slightly longer average length of stay for public housing residents (4.81 years versus 4.05 years), supporting the HUD data and suggesting that residential stability may play a role in the relationships that we observe. However, more research is needed to better understand sources of social support, both in public housing communities and among other rent-assisted households.

One limitation of this study is the self-reported nature of the rent assistance variables which have been shown in other studies to contain measurement error.³¹ A more accurate way to measure participation in rental assistance programs is to match participants' addresses to HUD records.⁷ However, to our knowledge there is no data set that includes such address matches as well as community-based social support measures. Additionally, classification error in the public housing measure will almost certainly bias the estimated effects towards the null. In this sense, our findings represent conservative estimates of the relationship between housing type and social support. Another limitation of this study is the fact that the heterogeneity of public housing in this country is unobservable in this national sample. It is possible that our findings are driven by subsamples of public housing residents, for example those living in large urban areas; or that average effects mask the diversity of social conditions within public housing projects. While we control for residence in a Metropolitan Statistical Area, other differences may be at play. Additionally, due to the limitations of our data, this study also masks heterogeneity in the alternatives to public housing that comprise the "other assisted households" category. Given HUD's current shift toward voucher-based assistance, it would have been useful to directly compare voucher users to public housing tenants. While we do not have accurate information about voucher use for our entire sample, based on subsample

analyses and HUD records, we estimate that approximately three quarters of our “other assisted” category are voucher users. Additionally, given the particular emphasis that has been placed on the deleterious nature of federally owned public housing developments³², the comparison between public housing and all other forms of assisted housing is still a useful one.⁴ Finally, it would have been useful to have more direct measures of health, although child educational outcomes and food insecurity do provide some indication of overall wellbeing.

As illustrated in Table 1, public housing residents and other rent-assisted households are well matched on observable demographic characteristics. However, to the extent that individuals can choose between rental assistance options, and to the extent to which those who choose public housing would have more access to social support regardless of housing type, such unobserved heterogeneity could introduce bias to our results. Nonetheless, we think that this is unlikely to be a significant source of bias because, in many cases, housing type is likely to be determined by exogenous factors related to availability. For example, individuals may place themselves on waitlists for both vouchers and public housing, and take what becomes available first. Furthermore, research indicates that tight rental markets often impose significant constraints on voucher use, relegating those who would otherwise choose vouchers to public housing.³³

The current study does not allow us to rule out the possibility that more socially integrated individuals are likely to remain in their current housing longer (and hence more likely to be captured in our sample) whereas those who have weaker ties to the community may move out when the option to do so arises, either as the result of increased material resources, the availability of another form of housing assistance, or the opportunity to move in with a family member, for example. Additionally, more frequent movers, who may be less socially integrated in their communities, are likely to be overrepresented among the relatively large proportion (30–34%) of respondents who have attrited by later SIPP waves. However, since these two issues apply to both public housing residents and the other assisted category, we do not believe that this introduces significant bias to our results.

The observed associations between public housing and social support combined with the finding that measures of social support are correlated with indicators of wellbeing raises important questions that merit further inquiry and have been largely disregarded by those advocating a shift toward voucher-based assistance. The observed association between public housing residence and social support resources may also help to explain why programs that move residents out of distressed public housing have not produced universally positive health effects.³⁴ Even if these programs are successful in helping public housing residents access more advantaged neighborhoods, there may be health costs associated with a loss of social support resources. Indeed, existing research suggests that individuals who relocate from public housing often face barriers to establishing new social ties in their new communities.^{35–37} For many individuals, relocation from public housing results in little to no improvement in housing and neighborhood conditions³³, and in such cases the loss of any social support may be particularly detrimental.

Our findings do not imply that there is no need to improve the conditions that exist in US public housing developments. The material conditions in many public housing developments have suffered greatly after decades of disinvestment. Additionally, as a significant body of research has shown, public housing residents must contend with crime and violence in their communities.^{2,8} However, the findings from this study suggest that these communities may also contain resources that are

protective for their residents. To the extent that additional research supports these findings, the current study suggests 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 1995.³⁸ As public housing demolition continues to occur, housing authorities should be sensitive to the possible importance of social ties among their tenants and provide relocation assistance that facilitates the preservation of social networks. Additionally, the creation of post-relocation resident associations could provide important support and encourage the building and maintenance of social ties among voucher users.

While the shift toward tenant-based rent assistance and the demolition of public housing has been justified in part by the presumed social pathologies of public housing developments, our findings suggest that these communities may in fact contain social resources that are less accessible to other low-income renters. For black public housing residents, such social resources likely play an important role in mitigating the health costs associated with both material disadvantage and racial exclusion. Given that existing research indicates extremely high rates of excess morbidity and premature mortality among black public housing residents,³⁹ it is critically important that future housing policies avoid further threats to the health of this population. Our findings suggest that consideration of social resources in public housing communities may be an important component of future policy conversations.

REFERENCES

1. Crump J. The end of public housing as we know it: public housing policy, labor regulation and US City. *Int J Urban Reg.* 2003; 27(1): 179–187.
2. Ranney D, Wright P. Race, class and the abuse of state power: the case of public housing in Chicago. *SAGE Race Relat Abstr.* 2000; 25(2): 3–31.
3. Popkin S, Katz B, Cunningham M. A decade of HOPE VI: research findings and policy challenges. Available at: http://www.urban.org/UploadedPDF/411002_HOPEVI.pdf. Accessed Jan 19, 2011.
4. Currie J, Yelowitz A. Are public housing projects good for kids? *J Public Econ.* 2000; 75(1): 99–124.
5. National Housing Law Project. False HOPE: a critical assessment of the HOPE VI public housing redevelopment program (June 2002). Available at: http://www.novoco.com/low_income_housing/resource_files/research_center/FalseHOPEExecSumm.pdf. Accessed July 29, 2010.
6. Newman S, Harkness J. Assisted housing and the educational attainment of children. *J Hous Econ.* 2000; 9: 40–63.
7. Newman S, Harkness J. The long-term effects of public housing on self-sufficiency. *J Policy Anal Manage.* 2002; 21(1): 21–31.
8. Venkatesh S. *American project: the rise and fall of a modern ghetto*. Cambridge: Harvard University Press; 2000.
9. Bennett L, Reed A. The new face of urban renewal: the near North Redevelopment Initiative and the Cabrini-Green. In: Reed A, ed. *Without justice for all: the new liberalism and our retreat from racial equality*. Boulder: Westview; 1999: 176–192.
10. Clampet-Lundquist S. No more 'bois ball: the effect of relocation from public housing on adolescents. *J Adolesc Res.* 2007; 22(3): 298–323.

11. Greenbaum S, Hathaway W, Rodriguez C, Spalding A, Ward B. Deconcentration and social capital: contradictions of a poverty alleviation policy. *J Poverty*. 2008; 12(2): 201–228.
12. Mullings L, Wali A. *Stress and resilience: the social context of reproduction in Central Harlem*. New York: Kluwer Academic/Plenum Publishers; 1999.
13. Manzo L, Kleit R, Couch D. “Moving three times is like having your house on fire once”: the experience of place and impending displacement among public housing residents. *Urban Stud*. 2008; 45(9): 1855–1878.
14. Kleit R, Manzo L. To move or not to move: relationships to place and relocation in HOPE VI. *Hous Policy Debate*. 2006; 17(2): 271–306.
15. US Department of Housing and Urban Development. A picture of subsidized households. Available at: <http://www.huduser.org/picture2000/>. Accessed July 29, 2010.
16. Berkman LF, Glass T, Brissette I, et al. From social integration to health: Durkheim in the new millennium. *Soc Sci Med*. 2000; 51(6): 843–857.
17. House JS, Umberson D, Landis KR. Structures and processes of social support. *Annu Rev Sociol*. 1988; 14: 293–318.
18. James S, Schulz A, van Olphen J. Social capital, poverty and community health: an exploration of linkages. In: Saegert S, ed. *Social capital and poor communities*. New York: Russell Sage; 2001.
19. Stack C. *All our kin*. New York: Basic Books; 1974.
20. Edin K, Lein L. *Making ends meet: how single mothers survive welfare and low-wage work*. New York: Russell Sage; 1997.
21. Cohen S. Psychosocial models of the role of social support in the etiology of physical disease. *Health Psychol*. 1988; 7(3): 269–297.
22. Geronimus AT, Thompson JP. To denigrate, ignore or disrupt: racial inequality in health and the impact of a policy induced breakdown of African American communities. *Du Bois Rev*. 2004; 1(2): 247–279.
23. James SA. Racial and ethnic differences in infant mortality and low-birth weight: a psychosocial critique. *Am Epidemiol*. 1993; 3(2): 130–136.
24. Austin Turner M. Moving out of poverty expanding mobility and choice through tenant based housing assistance. *Hous Policy Debate*. 1998; 9(2): 373–394.
25. Beck P. Fighting section 8 discrimination: the fair housing act’s new frontier. *Harv CRCL Law Rev*. 1996; 31(1): 155–185.
26. US Census Bureau. Survey of income and program participation. January 2, 2009. <http://www.census.gov/sipp/>. Accessed February 13, 2009.
27. Leventhal T, Brooks-Gunn J. Children in neighborhood contexts. *Curr Dir Psychol Sci*. 2003; 12: 27–31.
28. Cook JT, Frank DA, Berkowitz C, et al. Food insecurity is associated with adverse health outcomes among human infants and toddlers. *J Nutr*. 2004; 134(6): 1432–1438.
29. UCLA: Academic Technology Services SCG. Available at: <http://www.ats.ucla.edu/stat/>. Accessed March 8, 2009.
30. Crowder K, South SJ. Neighborhood distress and school dropout: the variable significance of community context. *Soc Sci Res*. 2003; 32(4): 659–698.
31. Corcoran M, Heflin CM. Barriers to work among recipients of housing assistance. *Cityscape*. 2003; 6(2): 73–87.
32. Austin Turner M, Popkin S, Kingsley T, Kaye D. Distressed public housing-what it costs to do nothing. Available at: http://www.urban.org/UploadedPDF/41159_Costs_of_Inaction.pdf. Accessed Jan 19, 2011.
33. Venkatesh S, Celimli I, Miller D, Murphy A, Turner B. Chicago Public Housing Transformation: a research report. Available at: http://www.curp.columbia.edu/publications2/PH_Transformation_Report.pdf. Accessed Jan 19, 2011.
34. Acevedo-Garcia D, Osypuk T, Werbel R, et al. Does housing mobility improve health? *Hous Policy Debate*. 2004; 15(1): 49–98.

35. Keene D, Padilla M, Geronimus AT. Leaving Chicago for Iowa's "fields of opportunity": community dispossession, rootlessness and the quest for somewhere to "be ok". *Hum Organ*. 2010; 69(3): 277–290.
36. Briggs X. Brown kids in white suburbs: housing mobility and the many faces of social capital. *Hous Policy Debate*. 1998; 9(1): 177–214.
37. Clampet-Lundquist S. HOPE VI relocation: moving to new neighborhoods and building new ties. *Hous Policy Debate*. 2004; 15(2): 415–447.
38. Oakley D, Ruel E, Reid L. Testimony to the United States House of Representatives Committee on Financial Services, Subcommittee on Housing and Community Development, Hearing on "Legislative Proposals to Preserve Public Housing." Washington, DC April 28 2010. Available at: http://www.house.gov/apps/list/hearing/financialsvcs_dem/oakley_testimony_4_28_10.pdf. Accessed July 29, 2010.
39. Manjarrez C, Popkin S, Guernsey E. Poor health: adding insult to injury for HOPE VI families. *Urban Institute Metropolitan Housing and Community Center Brief*. July, 2007. Available at: http://www.urban.org/UploadedPDF/311489_HOPEVI_Health.pdf. Accessed July 29, 2010.