



Published in final edited form as:

New Solut. 2015 November ; 25(3): 313–333. doi:10.1177/1048291115601020.

Understanding the Role of Social Factors in Farmworker Housing and Health

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Abstract

Differences in social advantage significantly influence health conditions and life expectancy within any population. Such factors reproduce historic class, race, and ethnic disparities in community success. Few populations in the United States face more social and economic disadvantage than farmworkers, and farmworker housing has significant potential to ameliorate or amplify the health impact of those disadvantages. Drawing on the limited direct research on farmworkers, and on additional research about poor, isolated, and immigrant societies, we propose four mechanisms through which housing can be expected to affect farmworker health: quality of social capital within farmworker communities, stress effects of poor housing situations, effects of housing on social support for healthy behaviors, and interactions among these factors, especially effects on children that can last for generations. Policy and planning definitions of “adequate” farmworker housing should take a more holistic view of housing needs to support specific social and community benefits in design decisions.

Keywords

farmworker health; social factors; farmworker housing; social capital

The importance of socially determined influences on human health is moving steadily into the mainstream of public health.^{1,2} Differences in social advantage have a significant influence on disease occurrence and life expectancy within any population.^{3,4} Social disadvantages with negative health impacts include low income, lack of educational attainment, stress, poor job security, unstable family relationships, exposure to discrimination, and poor housing. Social factors affect the health of disadvantaged people

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Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

through material and psychosocial mechanisms.⁵ These differences in social exposure reproduce historic class, race, and ethnic disparities in community health and community success.

Few populations in United States face more social and economic disadvantages than farmworkers, and housing can significantly ameliorate or amplify the health impact of those disadvantages. Initiatives that improve housing—the physical structures used for life activities and the neighborhood settings of those structures—can have both immediate and long-term impacts on health.

Appropriate farmworker housing is central to the capacity to create strong social capital in these communities. Social capital is essential to the ability of poor communities to invest in the human capital of their members, especially children. Permanent improvements in the lives of farmworkers require social situations that support a generations-long cycle of investment in the young and the vulnerable.

Our purpose in this paper is to increase awareness of these effects, encourage attention to social factors in farmworker health research, and support better policy design for farmworker housing. Unfortunately, little research directly addresses the influence of farmworker housing on social determinants of health. We combine a discussion of the known social influences of housing on farmworker health with parallel cases in nonfarmworker situations of housing influencing health through social influences. Social effects on farmworker health need to be considered today based on what is known; the issue is too significant to wait until the research is more complete.

Social Factors, Housing, and Health Outcomes

The range of social and community factors affecting public health in the poorest parts of a city has been conceptualized as a “ghetto miasma”—a cloud of weakly differentiated negative influences on health.⁶ Important health factors associated with poverty and discrimination include harmful effects through diet, stress, indoor air quality, lack of exercise, education, a sense of physical danger, and low personal mobility. (The word “miasma” hearkens to earlier theories of disease etiology that blamed bad air, or some other unknowable aspect of a place, for the undeniable and dreadful ailments there—cholera is the best example.)

We visualize the miasma of farmworker housing—negative influences that affect human health in farmworker communities. The analogy between poor farmworker housing and ghetto miasma is strong. Farmworker settlements resemble ghettos in significant ways. They are often segregated; poorly maintained; are underprovided with businesses, jobs, and social services; and usually untouched by the mainstream political process. Like the original miasma concept in the nineteenth century, this vague cloud of negative influences is gradually yielding to ongoing research about specific causes for aspects of the ailments, especially the importance of social capital, effective provision of health-related social norms, and environmentally created stress.

The Effects of Social Factors on Health

We approach the issue of housing-mediated social determinants of farmworker health by considering a range of four mechanisms whereby farmworker housing can be expected to affect social structure and eventually health. They are maintenance of *social capital* within farmworker communities, *stressful* effects of poor housing situations, effects of housing on social *support for healthy behaviors*, and interactions among these factors, especially *effects on children* that can be expected to last for generations. We explore these mechanisms at the “micro” scale of the housing units themselves as a built environment, and a “macro” scale of the neighborhood situation of the housing.

Social Capital

Social capital is the group benefit that derives from the development and maintenance of strong social networks.^{7,8} Social capital is critical to individual and community health.⁹ It strengthens communities in various ways, producing specific collective benefits by actively involving a group in the well-being of the individual.¹⁰

Social capital creates webs of reciprocal obligations that provide critical support in time of need—a trip to the emergency room, help caring for a seriously ill individual, or food contributions to the bereaved or the unemployed. Social capital facilitates the flow of important economic, health, and safety information for the individual—e.g., learning which symptoms merit a visit to a health provider and how to navigate the health-care system or aid in obtaining access to social services. Social capital facilitates collective action to address shared problems, health related or otherwise—e.g., neighborhood pressure to put in a stop light at a dangerous corner, joint efforts to counter gang violence, or petitions for development of local parks with playground equipment. Social capital reinforces individuals’ sense of identity and their sense of place in the world, and therefore their psychological health.

Most analysts observe that the value of social network connections varies in relation to the density of connections, types of connections, and the size and diversity of networks. Putnam’s distinction between “bonding” (intragroup) and “bridging” (intergroup) social capital is a useful way of looking at differing utilities of social capital.¹⁰ Other analysts (e.g., Granovetter^{11,12}) evaluate the strength of ties and characterize network relationships as “strong” or “weak.” In general, in the optimal social environment, individuals have access to both bonding and bridging social capital. Bonding social capital based on strong relationships of mutual reciprocity (in Mexican families, between relatives and fictive kin—*compadres/comadres*) makes it possible, for example, to weather crises better. But bridging social capital is crucial because access to a larger, more diverse social network is useful for securing information, accessing services, and assuring personal safety, even if the ties are weaker.¹³

The extensive use of *promotore/as* for migrant health promotion, for example, is based on the recognition that people are most likely to listen to and act on messages from fellow members of at least a loosely knit social network.^{14,15} This public health strategy, originally visualized as mobilization of trusted women in local neighborhoods with strong bonding

ties, has evolved into one where *promotore/as* are drawn from larger, less tightly knit social networks, supported by bridging capital. This issue of reliance on the social networks of neighbors—in farmworker communities, often compatriots and/or coworkers—relates directly to the issue of how best to integrate housing policy and other modes of social intervention.

Social networks loom large in determining individuals' values and social norms, and those norms may be either functional or dysfunctional. Classic examples of the “dark side” of social capital include gangs, the emergence of drug-based local underground economies, school dropout cohorts, and teenage pregnancy clusters. Unfortunately, social networks can convey misinformation as efficiently as sound information—for example, the imagined dangers of vaccination, theories about dangers of census enumeration, or folk remedies for HIV.

Stress

Stress has a major impact on human health through the interactions of human emotional and physiological systems and thus affects both psychological and physical well-being.¹⁶ Stress can be thought of as “an imbalance between demands placed on us and our ability to manage them”.¹⁷ Sources of stress include trauma, chronic pain, hunger, fear for personal safety, worry about finances, interpersonal conflict, and excessive caregiver burdens.

People under stress suffer from chronic fatigue, diminished performance, sleep problems, numbness, and diffuse muscle pains, among other issues. Chronic stress gives rise to both immediate and long-lasting physical changes. In stressful situations, humans produce higher levels of glucocorticoids; these affect many physiologic systems via the neuroendocrine system.¹⁸ Negative health impacts of increased levels of glucocorticoids result from their multiple effects on inflammation and the cardiovascular system, inducing chronic pain conditions, diabetes, and cardiovascular disease.

Unequal exposure to stressors perpetuates differences in health among many parts of a population. Minority populations are also affected by stressors that result from discrimination, which has health effects.¹⁹ Acculturative stress is the stress that derives from the transition into new cultural norms and practices, which can be “pervasive, intense, and lifelong”.^{20,p.25}

Stress effects accumulate over long periods, even a lifetime, and can affect people across generations. Stress is often related to domestic situations, including housing. Stress is reduced for individuals in strong social support systems and people who can get adequate rest.²¹ A sense of personal control or agency also reduces stress.

Health Behaviors

Health-related behavior is learned and conditioned through social interactions. Smoking, drinking, drug use, high-risk sex, and poor diet are behaviors produced within a social context and can be altered through social support. Housing can either facilitate or reduce affirmative social interactions that support healthy behaviors. Social networks affect facets of life that are not immediately health related but have discernible lagged effects on health

and health behaviors—education may be the best example. Housing and neighborhood can negatively or positively impact farmworker children’s educational outcomes which, in turn, strongly affect their health as adults and the health of their children. Campbell et al.²² demonstrate the long-term health benefits associated with childhood educational interventions.

Effects on Children

Social determinants of health play a particularly important role in children’s social and cognitive development. Children are vulnerable to negative events in ways that adults are not^{23,24} and migrant living presents specific challenges to children.^{25,26} Children are actively developing, physically and psychologically, so their experiences will affect their entire lives. Adolescents are vulnerable as they develop lifelong health behaviors. Housing and neighborhood characteristics affect family formation, access to education, freedom from stress, and sources of reliable health information, which are key for children’s long-term social and physical health and can provide opportunities to break out of existing class constraints. Communities create the conditions for generations-long stability by investing in healthy children who can subsequently invest in their own children.²⁷

Spatial Scale and Social Influences on Health

Much of the research relevant to social determinants of farmworker health focuses on one of two spatial scales at which social environment determines health. (1) The impact of housing-unit attributes, such as crowding, on social interactions and household and family life. *Household* refers to all the people sharing a living unit, whether or not they are within a *family*, which is a group of people related by birth, marriage, or adoption. (2) The impact of neighborhood context of housing on health through strong social network development and effects of hazard, isolation, policing and social control, and segregation at the neighborhood level.²⁸ We will explore the mechanisms of social effects on farmworker health at these two spatial scales, the “micro” scale of the housing itself as a built environment, and the “macro” scale of the neighborhood situation of the housing. This distinction by scale is broadly equivalent to the levels of social complexity seen in socioecological models.²⁹ The goal here matches that of the model—to explore how social–environmental factors affect people differently in different group dynamics.

Housing-Unit Scale Impacts

The character of farmworkers’ housing at the “micro” scale of the structures themselves affects social determinants of health in two general ways: Poor housing provides significant stresses, and inappropriate housing damages farmworkers’ capacity to generate social capital.

This type of research is woefully sparse (see also Quandt et al.³⁰ in this issue). Thus, this section also relies throughout on unpublished field observations of the authors. We acknowledge a concern about how representative our experiences are. Research to clarify the incidence of different types of housing problems will be difficult, but is important.

Housing Available to Farmworkers

A challenge to any generalization about farmworker housing is the huge range of farmworker housing, and the significant regional differences in form, arrangement (e.g., camps or not), and providers (e.g., farm connected or not). See also Arcury et al.³¹ in this issue. Diverse housing types commonly used by farmworkers include the following.

- Trailers are common in migrant-receiving communities, particularly for lone male migrants. A typical trailer may hold eight lone male migrants in one 15 × 60 ft. “single-wide.”
- Apartments are usually in better physical shape than other sorts of housing but often very overcrowded, e.g., four families in a two-bedroom apartment, requiring conversion of nominally common spaces into living units.
- Single-family dwellings may be relatively good housing, or not. These units are effective for nuclear families, but conflict may emerge in complex households with multiple families and individuals using the same space. Most rural and farm housing converted for farmworkers contains 2–3 bedrooms and may hold up to 15–20 people.
- Motel/barracks/single room occupancy housing provides small and basic space for farmworkers; quality varies greatly. These are rarely large enough to provide adequate space for family-support functions.
- A wide range of nonstandard/substandard dwellings can be found, mostly for single men. Examples include “back houses” behind residences (unattached or attached), garages, barns (with up to thirty men living in them), toolsheds, camper shells, inert school buses, “spider holes” dug in the ground, or cardboard houses in gullies.

Stress Induced by Inadequate Housing Units

Farmworkers’ lives are stressful.^{32,33} Housing can amplify stress for farmworkers through its crowded and chaotic nature, or because of the inherent stress of living in the dangerous or noxious circumstances of poor housing. Appropriate housing can reduce stress.

In one study, 38 percent of farmworkers surveyed experienced significant levels of stress as measured by the Migrant Farmworkers Stress Inventory.³⁴ Sources of stress specific to farmworkers included unauthorized status, separation from close family members, generally low earnings, frequent relocation, and underemployment and seasonal unemployment. It is almost always the case that multiple factors interact to generate stress, but housing-unit conditions and neighborhood social context are significant factors deserving careful attention. Living in dwellings that are both in poor repair and crowded will result in higher than average levels of stress.^{35,36} Excessive heat in housing units is a particular source of stress for farmworkers, since it compounds heat stress acquired during the workday.³⁷

Recent research has looked explicitly at the connection between unstable or stressful home environment and length of chromosome-protecting telomeres in young children.³⁸ Telomeres of genetically susceptible children were significantly shorter than those of

children growing up in stable homes. A comprehensive review of the impacts of stress and its biochemical consequences in the brain points to epigenetic changes which affect both adults and children.³⁹ The review notes the relatively well-understood consequences of prenatal stress.

Unsafe and unpleasant housing is stressful. Substandard farmworker housing is frequently cramped, dirty, hot, smelly, noisy, and unattractive. Health effects of farmworker housing identified in the other conference reports in this series.^{30,31} are themselves stressors; illness causes stress.

Perhaps 5 percent of farmworkers live in unusual housing units on a property owned by a local resident, usually another farmworker. These include back houses (a small noncode structure such as a tool shed, camper shell, or garage). The social relationships between the farmworkers who live in these substandard housing arrangements and their landlords in the “front house” vary and can be either supportive or negative. The tenants in these unusual housing units are almost always socially and economically marginal. Although most are single male migrants or groups of solo male migrants, families living in back houses may include a number of single mothers with children, since single-earner households involved in farm work are almost always economically marginal.

Crowding

Beyond the direct housing concerns related to physical quality of housing (e.g., plumbing, cooking facilities, heating), the crowded nature of farmworkers’ housing is a constant practical concern for farmworkers themselves and for farmworker advocates. It is estimated that 31 percent of farmworkers live in crowded housing;⁴⁰ this may be a substantial underestimate. The prevalence of crowded housing varies greatly from community to community. In a comprehensive study of farmworkers’ housing conditions in eastern North Carolina,⁴¹ 69 percent of farmworkers surveyed lived in crowded housing. A 2000 survey by the Housing Assistance Council found that 52 percent of farmworkers resided in crowded housing.^{42,43} Even more worrisome, 74 percent of farmworker children were growing up in crowded housing conditions. In the Housing Assistance Council survey, crowding varied greatly from region to region and community to community. As rural areas of the United States are increasingly urbanized, rising housing costs will likely increase the numbers of farmworkers living in crowded housing.⁴⁴

Crowded housing units, often referred to as “doubled-up” households or “complex households,” are an almost-universal facet of low-income populations’ economic coping strategies. A distinctive aspect of farmworker families’ crowded housing is that household size often changes substantially over time, as newly arriving relatives or *paisanos* are given a temporary place to stay, or as family members find work in another town and leave, or as rooms are rented out to boarders (*arrimados*). Consequently, household living arrangements are often in flux, which stresses social and practical arrangements within the household, especially for children.

Socially Disruptive Effects of Poor Farmworker Housing

Housing is universally seen as central to the nature and operation of the family; home and family are intimately related. Housing-unit characteristics have important effects on social capital formation. Farmworker housing units can support the family aspects of social capital formation to the extent that they provide spaces to support family cohesion.^{45,46} This includes spaces for private family functions, bonding, and safe child care. Food storage and preparation are central to family functioning, as well, which housing can support or impede. There is, of course, a rich research literature on how family functioning and social relations within a household affect individuals in the family, but little work has examined interactions within complex households or extended family households—where, for example, farmworker parents may share a housing unit with a married daughter, her children, and several of their son-in-law’s siblings.

Although farmworker living arrangements and types of households vary greatly from community to community, in our observations, about two-thirds of farmworker households are “nuclear” households composed of couples and, usually, children. Another 20%–30% of farmworker households are individuals from within a single extended family. The remaining 10%–15% of households are complex ones, where one or several families share housing, sometimes with one or several unrelated and recently immigrated adults, or where houses are used entirely by unaccompanied male migrants.

Most farmworker households are crowded, but the complex households and unaccompanied male households are typically much more crowded, averaging up to eight people in some communities. How crowded housing arrangements play out is a function of household type, housing characteristics, and degree of crowdedness. In particular, the levels of stress within the household are greater in the complex households where nuclear families share housing with unrelated workers or friends, in extended family households with high ratios of children to adults, and in some households of unaccompanied males.

Carter-Rodriguez et al.⁴⁷ tie “household chaos”—especially excessive chronic noise pollution—to specific stress-related health outcomes. These negative health effects can be passed to the children of stressed mothers. Complex households are more likely to be unusually disorderly, with many activities going on at once.

Living Arrangements and Family Well-Being

Household functioning, which is shaped in part by physical housing conditions, has immediate and direct impacts on many facets of well-being of families and children, including psychological and physical health and educational experience. Some researchers believe, for example, that extended family households have positive impacts on children’s development by making it possible for household chores and workload, including child care, to be shared.⁴⁸ On the other hand, complex households are, as noted earlier, often distinctively unstable and noisy.⁴⁹

The most common major challenge for newly arrived immigrants settling in farmworker communities may be finding housing. Because migrant settlement is so often facilitated by social networks,⁵⁰ the clustering of newly arrived migrants also provides an obvious

and easy basis for worker recruitment. Unfortunately, there is also ample evidence that assistance in securing housing, and the close link between housing and employment, can be transformed into worker exploitation. In one illustrative case from the authors' experiences, newly arrived migrants coming to southwest Florida in 2007 were isolated in old U-Haul trailers over 15 miles from the nearest town. They could not escape from their agreement to repay debts incurred to the immigrant smugglers who had brought them to the United States. In other slavery cases over the past several decades, isolated housing along the Eastern Seaboard and in California's Sacramento River delta area was a way to chain newly arrived workers to their employment.

Immigrants' social networks can fray when individuals lack resources to comply with housing-related norms of mutual reciprocity traditions.⁵¹ The result is that altruistic traditional social networks based on actual kinship and fictive kinship are overwhelmed. Ethnographic research in farmworker areas of Fresno County suggests that when mutual reciprocity leads to very large, crowded households, e.g., with 10–20 adults and children living in a single-family dwelling, there is nearly inevitable conflict that results in broken social ties and turnover in household membership.

Aggravated Effects of Poor Housing on Women

Living in crowded substandard housing has particularly negative socially mediated impacts on mothers.⁵² For female immigrant farmworkers, coming to work in U.S. agriculture often means a transition from noncash work in a village economy to the inherently stressful requirements of a constant search for employment in the unstable farm labor market.

Although husbands and wives in farmworker families generally both work, the burden of child-rearing and household work is heavier for women than for men. Inadequate kitchen facilities, aside from their direct impact on families' nutrition, are stressful for the women who do the cooking. In complex households—where several women share a single, cramped kitchen and are each responsible for preparing food for their husbands and children—already-powerful social stresses can rapidly escalate.

Complex households can place men in close contact with unrelated women; the potential for sexual harassment or assault is high in those situations, along with the stress on women from worry about such situations. The challenges of raising both preschool and school-age children usually fall more heavily on mothers than on fathers and may be exacerbated by crowded housing where many child-rearing activities compete for scarce space.

Concentrations of Unaccompanied Male Migrant Farmworkers

A significant proportion of U.S. farmworkers live in households entirely composed of unaccompanied male migrants. The extent to which these households undermine the health of household members depends on the specific composition of the household and the extent of crowding. A study of teenage farmworkers⁵³ in Immokalee, Florida—a farmworker community which is a favored destination for many newly arriving migrants from Mexico and Guatemala—underscored aspects of the dark side of social capital. Living in households consisting entirely of unaccompanied male migrants favored their acculturation to social norms that encouraged drinking too much, smoking, and risky sex. Pimps would bring

prostitutes to visit households of unaccompanied males, and teenagers who declined the opportunity would routinely have their sexuality questioned by their housemates. Male-dominated households also facilitate harassment and abuse of LGBT migrants. Similar patterns were observed in labor camps in Oregon, and the Agricultural Worker Health Study⁵⁴ reports parallel findings elsewhere based on interviews with farmworkers and HIV/AIDS community education specialists.

Research by the authors in the Marcellus gas fields of central Pennsylvania provides a useful comparison. Marcellus gas field construction workers come from Texas and Oklahoma and reside in state for months to years. They are often housed in isolated “man camps” near the remote drill fields, analogous to all-male farmworker housing. This housing demonstrates consistent problems generated by a young-male-only housing situation, even when workers are very well paid. Workers in these isolated camps are prone to binge drinking, risky driving behavior, and high levels of dependence on smoking and recreational drugs. Local communities find that the camps increase “rowdy behavior” involving alcohol, prostitution, and aggressive behavior toward local women. Conventional military camps provide potential parallel examples of male-dominated social groups widely given to binge drinking and high-risk sex.

Female farmworker migrants’ well-being and psychological health are frequently negatively affected by the concentrations of unaccompanied men in a labor camp. Women who lived in labor camps in Oregon with concentrations of unaccompanied male farmworkers reported a substantial level of sexual harassment. The high incidence of sexual assault and harassment of women in military situations is becoming increasingly well known.

Housing Effects at the Neighborhood Scale

Regional context of housing is clearly important in understanding the role of social factors in health. The social, economic, and environmental geography of farmworker neighborhoods produces material and emotional benefits or detriments to their inhabitants that can also affect physical or psychological health.^{55,56} Researchers highlight the social interaction and structural effects of neighborhoods on health outcomes,⁵⁷ and more conventional concerns like the concentration of poverty.^{58,59}

The effects of neighborhood conditions on farmworker housing are nearly unexplored. In this section, we draw heavily on analogies to other rural, isolated, poor, and segregated populations to frame the discussion. Rural counties, which house most farmworkers, offer significantly impaired economic conditions for many residents. High and persistent poverty are disproportionately found in rural areas.⁶⁰ Efforts to explain levels of poverty based on standard social-economic conditions typically require an otherwise-unaccountable “rural” factor to account for low levels of economic and social development.⁶¹ Poverty, in turn, has significant effects on health.⁶²

Weber and Jensen⁶¹ suggest three models for the impact of rurality on poverty: (1) a “social interaction” explanation, arguing that the types of social interactions typical in a rural environment do not support high aspirations and drive to succeed; (2) a “structuralist”

approach, suggesting that rural areas lack the spatial access and economic opportunities necessary for success; and (3) a “spatial interaction” model, focused on the effects of isolation and of location near other poor areas. We borrow this formulation, while noting the importance of social advantages and disadvantages in rural areas beyond simple economic success.

Social Interaction

Research shows that the size and robustness of social networks are mediated by community-level characteristics, specifically numbers of coethnics. Factors can assist or impede access to health care; see, for example, Syme and Berkman.⁶² Many farmworker neighborhoods are socially segregated by country of origin—even within communities that are otherwise homogeneously Hispanic majority.^{63–65} This finding is not surprising, given the major role village-based migration networks play in newcomers’ settlement. Although they strengthen resources of bonding social capital, these clustered neighborhoods make it more difficult for residents to develop resources of bridging social capital. Thus, residential segregation decreases the diversity of children’s social relationships, which is problematic for academic achievement because diversity of social relationships plays a positive role in school success.⁶⁶

Although research in some farmworker communities⁶⁷ suggests that gangs—and their significantly detrimental effects on social health—are not common in farmworker neighborhoods, the Agricultural Worker Health Study⁵⁴ includes reports that gangs are an emerging problem in other farmworker communities. The attention to Latino gangs in California has probably made objective evaluations of gang occurrence in farmworker communities unusually difficult. Clearly, additional data are needed.

Farmworkers can be the victims of violence in neighborhoods where high concentrations of recently arrived migrant farmworkers are clustered within immigrant neighborhoods of other national origins. In Immokalee, Florida, Guatemalan migrants were the targets of violence by local youth who considered “rolling wets” as an easy way to get cash; the recently arrived migrants carried relatively large amounts of cash because they could not use money services without official identification, and they were easily identifiable because most were of indigenous origin.⁶⁷

Violence within fairly homogeneous farmworker communities is its own problem as well. Domestic violence, for example, is known to be significantly more common in families under financial stress.⁶⁸ Violence, or threats of violence, in male-only farmworker housing is exacerbated by the dramatic age differences common among residents—older men preying successfully on younger men.

Racism and Other Structural Impediments to Social Advantage

Racism, which finally underlies many negative social influences of farmworker housing on health^{19,69} is most visible at the neighborhood scale. The neighborhood is the immediate locus of segregation and conveys the effects of discrimination to the individual.^{70,71} Racism creates and maintains neighborhood poverty through the development of damaging policies that limit infrastructural investments. Highly segregated minority neighborhoods are more

likely to be poorly served by municipal governments.⁷² Police and emergency medical technician service are typically worse in poor, segregated, and isolated neighborhoods. Racism is an everyday source of stress, operating through negative stereotypes, internalized racism, and microaggression.⁷³ But less segregated neighborhoods may also have increased chances of ethnic or racial conflict.⁷⁴

Unsafe neighborhoods increase stress, as do unattractive, noisy, or polluted neighborhoods. Neighborhoods perceived as dangerous may attract unwanted political attention; heavy police presence and highly “defensible” landscapes are stressful for minority residents,^{75,76} especially when combined with other long-term discriminatory practices.⁷⁷ Natural hazards, such as floods, are more likely in poor neighborhoods because land in hazardous zones is cheaper for developers. Noxious land uses like highways, dumps, hazardous waste sites—which, as the environmental justice literature shows, are far more frequent near poor and minority neighborhoods⁷⁸—also increase stress. Farmworker housing is intrinsically linked to farming, which is a noisy, dirty, and often toxic enterprise.

Spatial Interaction and Social Advantage

The character of a neighborhood affects the life experiences of farmworkers. A range of socially mediated problems result from the demographic characteristics of remote, isolated, or underserved neighborhoods. Lack of simple spatial access affects health in a range of other ways: timely access to health providers, access to governmental and nongovernmental social services, access to opportunities for physical activity, access to schools and other educational opportunities for children, and access to sources of affordable and healthy food.

Many of the otherwise-uncharacterizable “rural” negative health effects may result from access problems. Rural health advocates consistently list lack of transportation as a primary source of avoidable health complications. Ease of reaching a health-care provider affects the likelihood of timely medical intervention.⁷⁹ Location of farmworker housing affects access to the myriad services that an individual needs, including social services supporting child and family development. Access to education and related child development services are critical components of the long-term social health of farmworker communities. Unreliable education access by migrant farmworkers, or access to substandard educational systems, negates the effectiveness of that opportunity. Low levels of physical activity—and resulting health challenges like obesity—are directly correlated with physical access to recreational facilities and their perceived safety.^{80,81} Lack of adequate food access—the “food desert” problem—is understood to affect diet, and therefore health.⁸² Other commercial services, such as stores, money services, and nonfarm jobs, are essential to the social health of a community but may be difficult to access. Isolated housing creates an increased need for informal transportation support, thus amplifying the effect of limited social capital.

Spatial isolation damages social capital by decreasing contact with extended families and other social support networks, and by decreasing children’s opportunities to socialize with other children. Social networks’ roles as sources of mutual aid are similarly compromised by neighborhood isolation. Lack of access to a church where the residents wish to worship removes both a source of social capital and emotional benefits of worship itself. Research in the agricultural part of northern San Diego County, an area famous for the extent of

“spider holes” where unaccompanied male farmworkers live in cardboard houses, reports that—beyond the effects of the deplorable living conditions—farmworker social networks are weakened by the isolation of the encampments and the ever-present vigilance of the Border Patrol. “I know there are about 30 people from my village in this area but I can’t visit them,” says one farmworker.⁵⁵

Summary: Policy and Research Implications

Current research strongly suggests a significant impact of farmworker housing on farmworker health through complex and interacting effects on community and social factors.⁴ Research on parallel marginalized and underresourced groups supports the suggestion. Current housing policy process should address these effects, while additional targeted research seeks to clarify these relationships.¹⁶

Policy and planning definitions of “adequate” housing should take a more holistic view of housing needs to include social and community benefits in design decisions.⁸³ Housing that provides spaces and facilities to encourage family-based living will increase the positive benefits of social capital creation. The needs of women within farmworker communities that support social and community health are frequently undervalued in present housing design. Crowded, noisy, or unsafe housing should be seen as a health risk through the creation of stress, not just noxious or unpleasant for residents. Isolation should be recognized as a health risk because it weakens social capital, limits access to healthy food and physical activity, and decreases opportunities to use social services. Housing policy issues specific to isolated, segregated, rural populations need to be explored more fully. For example, integrated transportation provides benefits to all rural populations, not just farmworkers. A formal identification of “best practices” in the design and operation of farmworker housing, to optimize social factors supporting farmworker health, would be immediately useful for quality enforcement for some federally funded housing.

The etiological complexity of the miasma of farmworker housing can yield to further research into causes. Farmworkers represent one of the most emphatic examples in contemporary U.S. society of the problems of challenged social support systems and related determinants of health. A broad research strategy into the social determinants of health might seek to measure the range of negative health-related social circumstances for farmworkers compared to the general population—incidence of stress, of degraded social networks, and of lack of support for healthy behaviors. These rates of occurrences would be compared to farmworker health outcomes, to evaluate the specific situation of farmworkers as well as general questions about the impact of social and community factors on health.

Acknowledgments

This paper was produced for the conference “Farmworker Housing Quality and Health: A Transdisciplinary Conference,” organized by the Center for Worker Health, Wake Forest School of Medicine, California Rural Legal Assistance, Inc., and Farmworker Justice. Financial support for the conference was provided by the National Institute of Environmental Health Sciences (Grant R13 ES023709); the United States Department of Agriculture; California Rural Legal Assistance, Inc.; Southeast Center for Agricultural Health & Injury Prevention, University of Kentucky (Grant U54 OH007547); Southwest Center for Agricultural Health, Injury Prevention, and Education (Grant U54 OH07541); and Western Center for Agricultural Health and Safety, University of California, Davis (Grant U54OH009550).

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

Biographies

Ben Marsh is a professor of Geography and Environmental Studies at Bucknell University, Lewisburg, PA, where he has been since 1979. His scholarly and teaching interests lie in spatial research and the social landscape, specifically, GIS and spatial methods, human ecology and health, demography and social justice, geoarchaeology, the cultural landscape, and human–environment relations.

Carl Milofsky is a professor of Sociology at Bucknell University. His teaching and research focus on the dynamics of local communities and the relationships between health and community. He has also done research on nonprofit organizations in the United States and abroad with a particular focus on community-level organizations.

Edward Kissam is a researcher who has led studies of farm labor market dynamics, census undercount of farmworkers, and immigrant settlement in rural agricultural communities. His recent work has focused on ways in which immigration policy affects farmworkers' access to health services and education and, most recently, on rural Latino students' high school experience and transition into postsecondary education. He is cochair of the Grantmakers Concerned with Immigrants and Refugees' workgroup on Education, Economic Opportunity, and Immigrant Integration.

Thomas A. Arcury is a professor and vice chair for Research in the Department of Family and Community Medicine and director of the Center for Worker Health at Wake Forest School of Medicine in Winston-Salem. He also directs the Program in Community Engagement, Wake Forest University Translational Science Institute. His research and practice address occupational health and justice for immigrant workers.

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