

September 2018

# Population Health: The Translation of Research to Policy



## Case Studies and Commentary

Robert Wood Johnson Foundation Health & Society Scholars

The Robert Wood Johnson Foundation Health & Society Scholars (HSS) program was designed to build the nation's capacity for research, leadership, and policy change, while addressing the multiple determinants of population health. One of its goals was to produce a cadre of scientific leaders who could contribute to this research and spearhead action to improve overall population health and eliminate health inequities.

This report, edited by Robert A. Hiatt, MD, PhD, University of California, San Francisco, takes a case study approach, using six diverse examples of science to policy translation generated by Scholars in the HSS program from 2003 to 2016. Because the HSS program was discontinued in 2017, the Milbank Memorial Fund published these case studies in 2018 in hopes that many audiences, including students, would use them to learn about the connections between research, decision making, and policy.

## Case Study 2

# Fragile Health and Fragile Wealth

Understanding the relationship between mortgage strain and health inequality through the stories and experiences of working-class African American homeowners

### Author

**Danya Keene, PhD**

*Assistant Professor*

Division of Social Behavioral Sciences

Yale School of Public Health

## Synopsis

This case study aims to better understand relationships between the recent mortgage crisis and population health through in-depth interviews conducted among working-class African American homeowners who were experiencing difficulty paying their mortgages. These interviews showed how racial inequalities in health can intersect with other racially stratified sources of risk to put vulnerable homeowners at risk of mortgage strain. Many participants in this study experienced mortgage strain following a health-related event that triggered a collapse of a fragile household budget. Like many working class African Americans, participants experienced poor health at relatively young ages. Additionally, they often lacked access to adequate personal and social safety nets that could buffer the consequences of illness. This qualitative study was followed by an analysis of data from a nationally representative sample of homeowners, in collaboration with Jason Houle, a fellow Robert Wood Johnson Foundation Health & Society Scholar (HSS). This quantitative analysis, like the qualitative one, found that the onset of illness or disability was associated with significant increases in the risk of mortgage strain, mortgage default, and foreclosure, and that these relationships were primarily mediated through job loss and health care costs. Together, these studies suggest that the policy discussion around stable homeownership must go beyond the current focus on housing finance reform and financial literacy to include efforts that strengthen the broader safety nets available to homeowners who become ill or disabled.

## Learning Objectives

- Understand the intersection of mortgage strains and health inequity.
- Examine the strengths and limitations of qualitative research methods in producing policy-relevant work.
- Consider the intersections of health and social policies in efforts to improve population health.
- Consider the challenges of translating social research into policy.

## Introduction

As a Robert Wood Johnson Foundation Health & Society Scholar, I sought to better understand the relationship between the recent mortgage crisis and health inequality through the stories and experiences of working-class African American homeowners who were experiencing mortgage strain. I began my HSS fellowship directly following the peak of the foreclosure crisis and saw this prominent social issue as an extension of my prior work on the intersections of racial inequality, health, and housing.

Low-income and minority homeowners have experienced particularly large numbers of home foreclosures, in part because they were more likely to receive risky subprime loans.<sup>1,2</sup> When I began this project, I was interested in the effect of home foreclosures on African American homeowners, on their communities, and on existing race inequalities in health and wealth.

While an emerging body of research had begun to find associations between mortgage troubles and poor health, race was largely absent from these analyses.<sup>3-6</sup> Furthermore, the emerging quantitative literature was unable to show how homeowners experienced and navigated their mortgage challenges. My qualitative project sought to address these gaps in the literature. By using semi-structured interview techniques that allowed participants to tell their own stories on their own terms, I hoped to shed light on the experiences and processes that connect mortgage strain to health, thus identifying parts of the process that could be amenable to policy and programmatic intervention.

While I initially sought to understand how the experiences of mortgage strain and foreclosure could contribute to poor health and health inequalities, my research focus shifted considerably after a few months in the field. This shifting is a common feature of inductive qualitative projects such as this one, where broad research questions are refined through an iterative process of data collection, analysis, and reflection.<sup>7</sup> Specifically, as the interviews proceeded, I was struck by the extent to which participants' mortgage troubles were preceded by illness. I was also struck by how this poor health intersected with other sources of fragility in the public and private safety nets available to my participants. The health context of homeowners' financial experiences became the primary focus of my work.

## Study Design and Execution

This study took place between March 2012 and May 2013 in a Philadelphia neighborhood that I refer to as Locust Park. It is a stable, working-class, almost exclusively African American neighborhood. It is home to a large number of older black homeowners who purchased their homes in the 1960s and 1970s from whites who were moving to the suburbs and thus contains a substantial number of long-term homeowners. I chose Locust Park in part because it had one of the higher rates of foreclosure in the city—nearly twice the city average. It was also heavily owner-occupied with nearly 80% of its residents owning their homes. While Locust Park's poverty rate was relatively low, it was a working-class community that had been particularly hard hit by the recent economic downturn.

I recruited an initial group of Locust Park homeowners through letters that a large regional mortgage counselor sent to their former clients. I recruited a small number of additional participants through referrals from those already in the study. I initially intended to interview

families at various stages of the foreclosure process: those who were behind on their payments but still in their homes and those who had lost their homes to foreclosure. However, I was unable to find more than a few families who had experienced foreclosure, since at this time only about 2% of households were experiencing foreclosures. In addition, these displaced families were no longer residing at the addresses to which recruitment materials were sent. This sampling and recruitment issue likely played a role in the shifting focus of the project. Had I interviewed families who had gone through foreclosure, I probably would have learned more about the consequences of this event. Instead, I learned more about how participants came to be struggling with their mortgages.

This was an inductive qualitative study with 28 participants, all of whom were African American and 23 of whom were women. Most of the participants (18) had been in their homes for at least 10 years. Only nine were employed. Rather than setting out to test specific hypotheses, I was interested in broadly understanding how homeowners experienced mortgage strain. To accomplish this goal, I used a semi-structured interview format that allowed participants to tell their own stories of mortgage strain, which allowed me to ensure that important themes were covered. The interviews asked questions about buying and maintaining a home, securing a loan, making ends meet, social support resources, neighborhood context, and health and health care. Most interviews took place in participants' homes and lasted from one to three hours. I gave participants \$50 as compensation for their time.

The project followed a grounded theory approach<sup>7</sup> and, according to this approach, analysis was an ongoing process that occurred iteratively with data collection. After each interview, my research assistant, Dr. Amy Baker, and I wrote thematic summaries that both summarized the content of the interviews and discussed emerging themes. In accordance with grounded theory methodology, this early analysis allowed us to refine our questions to further interrogate emerging themes.

Once the data were collected, my research assistant and I constructed a codebook. First, we reviewed several transcripts and noted emerging themes. We then organized these themes into broader categories that comprised our codebook. Once a codebook draft was complete, we each coded a few interviews and met to discuss inconsistencies in our coding, overlap of existing codes, and codes that needed to be added. Once we were satisfied with the final codebook, it was used to code all of the interviews using the qualitative coding software Atlas-ti.

This analysis benefited from an interdisciplinary research team that approached the data from a number of unique angles. In particular, Dr. Baker's experience as a social worker brought to the data research questions about the interactions between homeowners and organizations.

Dr. Julia Lynch, a political scientist, brought expertise in social welfare policy. I approached the data from the perspective of my interdisciplinary training in population health, drawing on both the epidemiological literature on health disparities as well as a large sociological literature on housing, place, and inequality. Qualitative data contain many stories, and this interdisciplinary perspective resulted in a story about the intersections of health and wealth inequality that is the focus of this case study. This narrative emerged in the early phases of data analysis and was further supported through the process of coding and organizing the data.

## Results

### Poor health leads to income loss

The interviews point to several intersecting pathways that connect poor health and mortgage strain. The most common among these pathways was the loss of income that resulted from illness and disability. The story of one participant, Theresa, illustrates this process. Theresa was a single homeowner who purchased her home with her husband in the late 1960s and paid off the mortgage in five years. After their divorce in the 1980s, Theresa maintained the home and her budget single-handedly through long work hours at two jobs. When the house needed repairs or extra expenses arose, she took on another shift. However, as she approached her late 50s, her health began to deteriorate. She suffered from debilitating arthritis and could no longer work the long hours. Her only financial cushion was the equity in her home, and she took on a second mortgage. Then in 2006, at the age of 60, she lost her job. She explained, “Things got really bad after 2006 with trying to pay my bills because my health started failing me. So, I was classified as being disabled to work. Couldn’t work because of the pain and everything.” Not only was Theresa too sick to find a replacement job, but like several other study participants, she also was too young to qualify for age-related income supports. It took a year to negotiate her eligibility for disability. During this time, she accumulated large credit card debt. Seven years later, she remained in a constant struggle to save her home.

For Theresa, work in the form of overtime was the cushion she had relied on to make ends meet in the context of unanticipated expenses. Her failing health eliminated this cushion. The same was true for 43-year-old Leigh Jones, a registered nurse and divorced mother of four. After her divorce, Leigh took on a more demanding job to stay on top of her bills. However, she had to give up this position because of a neuromuscular condition that prevented her from working the long hours. She explained, “I hadn’t had any flare-ups until I was on this job trying to juggle all these responsibilities...so I had to give it up because I had an

exacerbation.” In her subsequent struggle to make ends meet, she missed mortgage payments and received a foreclosure notice.

For some participants, it was not their own health but the health of a family member that led to reduced work hours. For example, 57-year-old Ronald owned a commercial cleaning business that was fairly successful. However, when his mother became ill with Alzheimer’s disease, he downsized the business to take care of her. After she died, he was not able to recoup these hours due to the recession. At the time of the interview, he was struggling to keep the house out of foreclosure. He explained, “So then my mom got sick, I came in half a day. I was done at 12:30 p.m. to feed my mom lunch...okay, so that was seven years. Okay, yo, I’m not doing that no more. I’ve only got one truck now”—compared to the five trucks he had before.

The significance of poor health as a contributor to mortgage strain was most salient in the stories of older and middle-aged members of the sample. However, young and healthy adults were not immune to the health problems that occurred among their older family members. For example, 32-year-old Bria described relying on her parents for financial support when she purchased her home. However, in 2008, when she lost her job and fell behind on her mortgage, her father, who was in his late 50s, had also recently become ill and lost income. She noted, “My parents...they helped me as long as they could. Like they helped a lot actually. But then my dad got sick, so then, you know, yeah, I couldn’t—we couldn’t—couldn’t do as much. My mom was, you know, trying to make ends meet there, so I felt like I was a burden.”

For several participants, not only did experiences of illness precede mortgage trouble, but the stress associated with mortgage strain seemed to exacerbate underlying health issues. In some cases, this then made it even harder to regain a secure financial footing through employment. For example, 51-year-old Felicia described how the threat of losing her home exacerbated her depression, which then interfered with her employment prospects. As she noted, “People won’t hire people with sad eyes.”

A second major theme in the interviews was the role of medical costs. Not only did health issues result in lost income, they also resulted in health care costs when participants were uninsured or underinsured. For example, Deborah was diagnosed with cancer in 2010 and though she was already receiving disability benefits for her chronic high blood pressure, many of her new medications were not covered by her insurance. When asked when it first became hard to pay her mortgage, she replied, “After I got sick and [needed] a lot of medicine that I was buying, my insurance wouldn’t pay for it. And I started putting out money for medical expenses.”

Theresa also described medical bills as part of her ongoing financial struggle. She explained, “Each time you go, you have to pay \$35 with my insurance. Even though I have insurance, I pay \$35 just for...the consultation.”

Another common theme throughout the interviews was that participants did not have the resources to buffer the effects of the illnesses and disabilities they experienced. Most of our participants maintained their households on tight budgets with minimal cushion (other than their home equity) to absorb unexpected expenses or lost income due to illness. Many were divorced or single mothers who were raising children or grandchildren on limited income. Many described lacking emergency funds and continuously juggling bills. As 64-year-old Sherry explained, “I thought I’d have a little something saved or a little something put aside for emergencies or if something else breaks down, but that did not work out like that. It did not work out that way.”

Additionally, several participants were among the most resourced members of their kin and social networks, leaving them with few places to turn for financial help when they fell behind on their mortgage. As 36-year-old Nicole explained, “Before, this [mortgage default], it seemed like I was the backbone of my family...When we got our home and everything, we helped everybody. My mom lived with me at one time. My twin sister lived with me at one time. My brother lived with me at one time and my older sister.”

For some participants, the financial vulnerability associated with health shocks also seemed to be related to gaps in public safety nets. Lack of adequate health insurance was a major theme in the interviews. Participants also described a multitude of struggles in obtaining other types of benefits including food assistance. They described long hours hunting down benefits and programs that could alleviate their financial distress.

Participants also discussed limited access to income supports after they were no longer able to work because of health issues. Because most participants were too young to qualify for age-related Social Security benefits, their only options for assistance were Social Security disability programs or other public assistance. In many cases, neither of these programs provided sufficient income for recipients to maintain their mortgage payments. As 56-year-old Walt explained, “When you’re on a fixed income, I only get like \$800 a month, you know? I’m paying like \$700 a month mortgage.”

Others fell behind on their mortgages because of bureaucratic battles that resulted in the delay of these disability benefits. For example, Theresa qualified for disability benefits, but it took over a year to negotiate her eligibility, in part due to lost paperwork. During this period where she had no income, she fell into a vicious cycle of debt. (For a more detailed description of the results, see Keene, Lynch, and Baker 2014.<sup>8</sup>)

In summary, the data from these interviews show that poor health, occurring in the context of under-resourced personal and public safety nets, can threaten fragile household budgets to create mortgage strain. Like many working-class African Americans, participants experienced poor health and disability at relatively young ages, before they were able to qualify for age-related income supports.<sup>9</sup> To make matters worse, in the context of vast racial wealth inequalities,<sup>10</sup> participants often had little family or personal wealth to draw on in the event of a health crisis, and existing public safety nets often proved inadequate. These experiences of vulnerability are likely not unique to African American homeowners. However, the magnitude of these health and wealth vulnerabilities is linked to an ongoing history of racial stratification that included discriminatory housing policies and wage structures.<sup>11</sup>

This qualitative work tells the story of a group of homeowners from one community, providing depth that allows us to observe the complexity of financial strain and its intersections with health. However, I was also interested in whether and to what extent the relationships observed in this small sample played out on a national scale among both white and black homeowners. Thus, in a subsequent study, my colleague Jason Houle and I used nationally representative data from the National Longitudinal Survey of Youth to examine how worsening health predicted mortgage strain and foreclosure.<sup>12</sup> We found that the onset of illness or disability was associated with significant increases in the risk of mortgage strain, mortgage default, and foreclosure, and that these relationships were primarily mediated through job loss and health care costs. Additionally, many participants in this study were single or divorced homeowners, and their stories highlighted the challenges of getting by on a single income. Given the decline of marriage overall, it will be important to consider the added financial vulnerability of single-earner households.

## Translating Research to Policy

I have conveyed the findings of this work to people and organizations involved in setting policy. As one example, I was invited to join a Foreclosure and Health Advisory Group that was organized by a Pennsylvania nonprofit law firm, Regional Housing Legal Services. This advisory group was comprised of community-based organizations, city agencies, state policymakers, and academics. I was able to share findings from the above study at the advisory group's first meeting. The experience these stories produced helped inform a conversation at this meeting about the intersection of health needs and foreclosure vulnerability. This initial meeting led to future conversations with Regional Housing Legal Services and the Pennsylvania Housing Finance Agency, a state agency that services a large number of home loans in the state, about a need for interventions that could address the depression and anxiety that created additional barriers for at-risk homeowners like Felicia (see page six). We



proposed a modest low-cost intervention that would inform at-risk homeowners of subsidized counseling services. The state agency agreed to partner with us by distributing this information to a randomized sample of individuals whose mortgages they serviced. Although the specific intervention was ultimately not funded or carried out, I am hopeful that our research findings about the intersection of health and foreclosure helped lay the groundwork for future policy work and intervention development in this area.

I also anticipate that data from this study informed the work of the many agencies that were at the advisory group meeting by raising awareness about the intersections of health and housing inequalities. Intermediaries such as the participants of this group can be critical to the process of translating research knowledge into practice.

In addition to participating in the advisory group, my colleagues and I extended the reach of these findings beyond academia. For example, Julie Lynch and I spoke with an NPR reporter who subsequently produced a show on the intersections of foreclosure and health. Findings from the quantitative follow-up paper were reported on by the *Washington Post* and Reuters. In communicating with the media through press releases and conversations with journalists, we were careful to emphasize the overarching communication objective of our study: that our society needs to implement more effective safety nets for those who become ill or disabled to help mitigate the risk of mortgage trouble. We were concerned that an oversimplified punch line—for instance, illness leads to foreclosure—could miss the policy relevance of this work by framing foreclosure as an individual problem (the result of individual health behaviors that lead to illness), rather than a structural one. Being able to talk with journalists allowed us to clarify and emphasize our message so that our findings and their implications were accurately and effectively conveyed.

## Successes and Challenges

This project was successful in bringing a new perspective about the intersection of health and mortgage strain to both academic and policy conversations and in bringing the voices of homeowners into these conversations. One challenge I faced in translating the findings of this work into policy is that the interviews spoke most to structural problems that call for “big P” policy changes (for example, the racial stratification of wealth or the inadequacy of social safety nets) rather than programmatic changes that are easier to implement at a local level. However, by showing how participants experienced health challenges and how health challenges and mortgage strain are connected, the interviews did suggest some opportunities for smaller-scale interventions (for example, the provision of mental health counseling for at-risk homeowners) that may be able to weaken the link between getting sick and losing one’s home.

## Conclusions

These interviews showed how racial inequalities in health can intersect with other racially stratified sources of risk to put vulnerable homeowners at risk of mortgage strain. Although these interviews took place in the wake of the mortgage crisis, the dominant story they tell is not about the burst of the housing bubble or the well-documented rise in subprime lending. Subprime lending did play a role in mortgage strain for some participants, even among those homeowners who once owned their homes outright but then took out second mortgages. However, the loans themselves were rarely discussed as the primary source of mortgage trouble. Instead, interviews showed how loan terms intersected with long-standing inequalities in wealth and health that have resulted from ongoing structural processes. In this sense, the current study extends the discourse surrounding home foreclosure beyond the behaviors of borrowers and lenders.

The findings from this study suggest that the policy discussion around stable homeownership must go beyond the current focus on housing finance reform and financial literacy to include efforts that strengthen the broader safety nets available to homeowners who become ill or disabled. Specifically, these findings suggest a need to reduce the amount of financial burden borne by those who become ill through expanded health insurance coverage. These interviews took place prior to the passing of the Affordable Care Act, and it is possible that may have alleviated some financial burden of illness for those participants who were uninsured or underinsured. However, our findings suggest that even homeowners who have adequate insurance may experience adverse financial consequences of illness as a result of lost income. This suggests that in addition to improving coverage for medical care, expansions of unemployment insurance and disability benefits are also important. Furthermore, the removal of bureaucratic hurdles that cause delays in receipt of disability benefits may help prevent the onset of debt that, as illustrated by several participants in this study, can be hard to recover from. Finally, an expansion of existing mortgage forbearance and insurance programs may also be useful in protecting the home equity of those who fall ill. Given the well-established importance of stable housing and financial well-being, health policies that weaken the link between illness and home loss are likely to have broader implications for population health.

## Discussion Questions

1. What are the strengths and limitations of qualitative research for doing policy-relevant population health research?
2. Thinking beyond what was discussed in this case study, what are other ways in which the researchers could have increased the policy relevance of this work? Who could they have reached out to? What recommendations could they have developed?
3. Discuss how the data presented here have or have not changed your perspective about the foreclosure crisis and mortgage strain more broadly.
4. What unanswered questions does the current case leave you with? How would you go about answering these questions?

## Assignments

1. Conduct a review of existing programs designed to help older homeowners—such as some of the participants in this study—avoid mortgage default and foreclosure. You can include both local and federal programs. Analyze these programs from the perspective of this case study. Discuss how these programs fit with what you learned in this study and how they do not fit. Propose recommendations for how existing programs could be modified, extended, or replaced.
2. Design a follow-up study based on this case study that can extend our knowledge of mortgage strain and health relationships and translate into more effective policies and programs. Describe the research question you will address and how it relates to the current case. Describe the methods you will use to address this question. Finally, discuss how you might translate this research into policies or programs.

## References

1. Rugh JS, Massey DS. Racial segregation and the American foreclosure crisis. *Am Sociol Rev.* 2010;75(5):629-651.
2. Saegert S, Fields D, Libman K. Mortgage foreclosure and health disparities: serial displacement as asset extraction in African American populations. *J Urban Health.* 2011;88(3):390-402.
3. Alley DE, Lloyd J, Pagán JA, Pollack C, Shardell M, Cannuscio C. Mortgage delinquency and changes in access to health resources and depressive symptoms in a nationally representative cohort of Americans older than 50 years. *Am J Public Health.* 2011;101(12):2293-2299.
4. Currie J, Tekin E. Is the foreclosure crisis making us sick? <http://www.nber.org/papers/w17310>. National Bureau of Economic Research working paper 17310. Published August 2011. Accessed February 8, 2018.
5. Osypuk TL, Caldwell CH, Platt RW, Misra DP. The consequences of foreclosure for depressive symptomatology. *Ann Epidemiol.* 2012;22(6):379-387.
6. Pollack C, Lynch J. Health status of people undergoing foreclosure in the Philadelphia region. *Am J Public Health.* 1009;99(10):1833-1839.
7. Corbin J, Strauss A. *Basics of Qualitative Research: Techniques and Procedures for Developing a Grounded Theory.* 4th ed. Thousand Oaks, CA: Sage; 2014.
8. Keene DE, Lynch JF, Baker AC. Fragile health and fragile wealth: mortgage strain among African American homeowners. *Soc Sci Med.* 2014;118:119-126.
9. Geronimus A, Thompson J. To denigrate, ignore or disrupt: racial inequality in health and the impact of a policy induced breakdown of African American communities. *Du Bois Review.* 2004;1(2):247-279.
10. Shapiro T. *The Hidden Cost of Being African American: How Wealth Perpetuates Inequality.* New York, NY: Oxford University Press; 2004.
11. Coates TN. The case for reparations: an intellectual autopsy. *The Atlantic.* May 2014.
12. Houle JN, Keene DE. Getting sick and falling behind: health and the risk of mortgage default and home foreclosure. *J Epidemiol Community Health.* 2015;69(4):382-387.

## About the Milbank Memorial Fund

The Milbank Memorial Fund is an endowed operating foundation that works to improve the health of populations by connecting leaders and decision makers with the best available evidence and experience. Founded in 1905, the Fund engages in nonpartisan analysis, collaboration, and communication on significant issues in health policy. It does this work by publishing high-quality, evidence-based reports, books, and *The Milbank Quarterly*, a peer-reviewed journal of population health and health policy; convening state health policy decision makers on issues they identify as important to population health; and building communities of health policymakers to enhance their effectiveness.

*The Milbank Memorial Fund is an endowed operating foundation that engages in nonpartisan analysis, study, research, and communication on significant issues in health policy. In the Fund's own publications, in reports, films, or books it publishes with other organizations, and in articles it commissions for publication by other organizations, the Fund endeavors to maintain the highest standards for accuracy and fairness. Statements by individual authors, however, do not necessarily reflect opinions or factual determinations of the Fund.*

*© 2018 Milbank Memorial Fund. All rights reserved. This publication may be redistributed digitally for noncommercial purposes only as long as it remains wholly intact, including this copyright notice and disclaimer.*

Milbank Memorial Fund  
645 Madison Avenue  
New York, NY 10022  
[www.milbank.org](http://www.milbank.org)