



Our Homes, Our Health:

Ensuring Climate and Housing
Justice for Florida's Manufactured
Home Communities



Executive Summary

Access to stable, quality, and affordable housing is a major determinant of our health and well-being. But too many people — especially people with low and middle incomes — earn stagnant wages or are on fixed incomes that make it hard to afford the high cost of housing, and as a result, face persistent housing instability.

In Florida, millions of seniors as well as young, immigrant, and working-class families live in manufactured home communities (sometimes called mobile home parks) as a way to access affordable housing. Most residents in these communities own their home and rent the land it sits on from community owners.

However, residents of manufactured home communities face community owner practices that risk residents' housing security, such as arbitrary rent hikes. On top of this, climate disasters, specifically hurricanes, often cause significant damage in these communities. And then when state and federal disaster recovery programs don't meet their needs, residents experience distress and deepening housing and economic insecurity.

This report examines the health impacts experienced by manufactured home community residents who live at the intersection of these threats: predatory community owner practices, increasing climate disasters, and inadequate disaster recovery programs. Our research methods included input from 77 manufactured home residents in Florida, along with a review of existing research and data.

Inadequate protections from predatory community owner practices leave residents vulnerable

The current context in Florida allows community owners to establish dramatic lot rent and fee increases, enact arbitrary rules and requirements, and disregard community maintenance. These practices put residents at risk of choosing between essentials like food and medicine, and their homes.

Dramatic rises in housing costs and threats of eviction have severe health consequences such as elevated blood pressure and increased likelihood of stroke, cardiovascular disease, diabetes, and depression. Additionally, some community owners fail to maintain water, sewage, and trash disposal, putting residents directly at risk for injuries, and air-borne and water-borne illnesses.

Climate disasters exacerbate instability and health inequities

Recent hurricanes in Florida have deeply impacted the health of manufactured home community residents as they deal with structural damage, mold contamination, and lack of utilities for long periods of time. What's more, hurricane intensity and rainfall are projected to increase as the climate continues to warm. This is especially concerning, as 1 in 4 manufactured homes in Florida are located in a storm surge zone.

In the face of these disasters, some community owners make matters worse by neglecting to provide basic services like water and electricity, requiring rent even when homes are vacant, increasing lot rent fees, and requiring costly repairs. These practices, compounded with the stress and trauma of disaster, take a toll on residents, many of whom continue to suffer from devastating physical and psychological impacts long after the hurricanes pass.

“[There’s] mold in my house. I have bronchitis quite often and I didn’t get it before...My health issues have really come up since the storm came through.”

— Jeannie

Disaster recovery programs fail seniors, immigrants, and low-income families

Federal and state disaster recovery programs exacerbate residents’ exposure to stress and poor health. The programs are not meeting the needs of manufactured home residents:

- Recovery program requirements force residents to choose between repairing their homes in a timely manner and getting assistance. For example, the Rebuild Florida program requires residents to wait for approval before making needed repairs.
- Recovery inspections and assistance are inadequate — 82% of surveyed residents expressed dissatisfaction with recovery resources available from FEMA.
- Costly insurance requirements block access to assistance forcing residents to choose between financial stability and receiving the support they need.

Recommendations to promote residents’ health and safety

Lawmakers, government agencies, and community owners need to work with residents to address these intersecting threats to their well-being. Our full report includes detailed recommendations to ensure housing and economic security.

We seek broad changes that:

- Center affected communities in solutions around climate disasters
- Ensure affordable homes and healthy communities
- Protect resident well-being and ensure just recovery after climate disasters
- Invest in climate-resilient communities



MHAction community event in Florida.

Acknowledgments

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We're grateful to the manufactured home community residents for sharing your deeply personal stories. The stories and experiences of residents are the backbone of the movement for housing justice.

Thank you to Margie Mathers, Beth Hemlick, Dennis Carl Mezza, Midge Grant, Terry Bolton, Pamela Jackson, Community Justice Project, Legal Services of Greater Miami, Inc., Marathon Community Church, City of Daytona Parks and Recreation, and Human Impact Partners staff Lili Farhang, Ana Tellez, Kourtney Nham, and Logan R. Harris for your support.

The work in this report was made possible by funding from the Health Impact Project, a collaboration of the Robert Wood Johnson Foundation and The Pew Charitable Trusts. The views expressed are those of the author(s) and do not necessarily reflect the views of the Health Impact Project, The Pew Charitable Trusts, or the Robert Wood Johnson Foundation.

Graphic design and copyediting: Cozette Lehman and Nirmala Nataraj

Suggested Citation

Human Impact Partners. December 2019. Our Homes, Our Health: Ensuring Climate and Housing Justice for Florida's Manufactured Home Communities. Oakland, CA.

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Human Impact Partners (HIP) brings the power of public health to campaigns and movements for a just society through research, advocacy, capacity building, and field building. Our mission is to transform the policies and places people need to live healthy lives by increasing the consideration of health and equity in decision making.



Manufactured Housing Action (MHAction) is a national movement of manufactured home residents who fight to protect the affordability and viability of their homes and communities through local and state campaigns. MHAction recruits, develops, and coaches manufactured housing community leaders who mobilize their neighbors and drive campaigns to advance policy reforms, engage corporate landlords, and strengthen social justice movements.

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Introduction

“The hurricane took a lot of peoples’ homes, but people couldn’t recover because of [our community owner].”

— Emile

There’s a universal desire we have as people for a place to call home — one that we can take pride in and that protects us from the elements. Our home is also a matter of health: the safety and quality of where we live, as well as its affordability, greatly influence our ability to thrive.

Yet the high cost of housing, and stagnating employment options and income, often mean that not everyone has an equal opportunity to live in safe and affordable housing. Compounding this reality is a rise in climate disasters that affects housing conditions for many, coupled with barely-there disaster recovery programs. As these complex issues intersect, it’s critical to understand the health and equity impacts across communities.

This includes the nearly two million people living in manufactured home communities in Florida, who are concentrated along the Gulf of Mexico and the coast. Because of their location, these communities are particularly prone to damage from climate disasters. Residents in many of these communities already struggle with exploitative ownership practices that impact their health, and hurricanes exacerbate those practices even further, resulting in intersecting threats to their health and well-being.

This report evaluates the health impacts on manufactured home community residents in Florida due to three intersecting threats:

- Exploitative practices by community owners before, during, and after hurricanes
- The lasting impact of recent hurricanes
- Deficiencies in federal and state disaster recovery programs

We conclude with recommendations for decision makers — including elected officials, government agencies, and community owners — to take action towards equitable recovery, affordable housing, and good health for manufactured home community residents in Florida.

Housing as a social determinant of health

Access to safe and affordable housing is a basic building block of well-being for people, families, and communities — and housing affects our health through multiple pathways.¹

- Available affordable housing ensures that people can pay their housing costs while still having enough money left over to cover basic needs like healthy food and medical care.²
- The quality of housing has extensively documented effects on health — from exacerbating respiratory conditions when there’s pests or mold, to severely harming children’s development when they’re exposed to lead through water or paint.^{2,3}
- Housing stability supports good mental health and better outcomes in other parts of life, like employment and education. When people are forced to move frequently, live in crowded housing, or in the most extreme cases, experience homelessness, it can lead to a wide range of health problems, including depression, psychological distress, and substance use.^{4,5}

¹ Any reference to “mobile home” in this report is meant to align with how researchers and government agencies refer to manufactured homes in their documents.

² Latinx is a gender-neutral term for Latino or Latina.

1.8 million people in Florida live in a manufactured home

For decades now, millions of people have turned to manufactured homes — or mobile homes, as they're sometimes known — as a source of affordable housing. About 70% of manufactured home residents in Florida either own or are working toward buying their home.^{6,7} It makes sense: the cost of purchasing a manufactured home in Florida is almost four times less than the cost of purchasing a single-family home.⁸ This affordability makes it possible for many — mostly working-class families and seniors — to have a place to call home without jeopardizing their economic security. Florida also has the largest number of manufactured home communities in the US, with almost 4,000 communities located in rural and metro settings.^{9,10}

What is a manufactured home?

A manufactured home is a factory-built home designed to be lived in. There are two common types of manufactured homes — single-wide and double-wide homes — which differ in living space and provide bedrooms, bathrooms, a kitchen area, and sometimes a living area and wash room.¹¹ Across the US, manufactured homes make up around 7% of the national housing stock, with 22 million people (about 15% of the US population) living in a manufactured home.^{9,12,13}

The US Department of Housing and Urban Development oversees manufactured housing standards and regulations, first developed in 1976.¹⁴ The State of Florida implements additional guidelines to ensure resilience of manufactured homes, particularly during climate disasters. Research shows that homes built to current codes can withstand extreme weather events, such as high winds from hurricanes.

Manufactured home communities are also environmentally-friendly. The manufacturing process limits construction waste, the small foot print of the homes limits energy use, and the density of the communities encourages walking, biking, and use of fuel-efficient modes of transportation, like electric golf carts.

Residents include seniors, immigrants, and young and working-class families

Manufactured home communities are home to seniors as well as young, immigrant, and working-class families seeking affordable housing.^{6,12,15} According to advocates and researchers, manufactured home residents living in land-leased community settings are likely more diverse than standalone manufactured homes, especially in Florida, given immigrant populations from the Caribbean and Central and South America. Existing data on community settings highlights that 17% of heads of household in mobile home parks¹ identify as Latinx², with a trend toward households becoming more diverse over time.^{16,17}



Most manufactured homes house lower-income residents. For example, half of residents report a median annual income of \$30,000 or less, which is nearly 40% less than the median annual income for residents of other types of households.^{6,7,9,13,15} Stakeholders indicate that residents are primarily retired seniors, many of whom live on fixed incomes, and working-class families. Manufactured home communities in more tourist areas, such as near Miami and the Florida Keys, include low and middle-income families, as well as families who work in local retail/sales, food service, transportation, and hotel accommodations sectors that typically pay lower than a standard living wage.

Manufactured home communities cultivate strong social ties

“I have really good friends there. I met a lot of great people.”

— Midge

Manufactured home communities provide social and health benefits. Residents move to manufactured home communities in Florida for various reasons: housing affordability, the weather, retirement living and amenities, and social relationships. Residents describe how much they enjoy the friendships they’ve created and the people who live around them, and even credit these relationships as a reason they don’t want to leave.

Living in a manufactured home community provides stronger social ties than living in less dense neighborhoods.¹⁸ Researchers document that manufactured home community residents enjoy social events and spend more time with relatives and neighbors than do residents in conventional homes and townhouses. Residents also speak more often with people they consider their best friends, indicating deeper connections.¹⁸ Additionally, the longer a resident lives in a specific manufactured housing location, the less likely they are to move,¹⁹ which allows for greater stability and likely contributes to stronger social connections.

Residents, especially those facing economic struggles, feel like they can relate to one another. In senior retirement communities — where residents often live alone, don’t drive, and live far from family — neighbors take extra care of one another by checking in, looking out for one another’s homes, and providing support when someone is sick or needs a hand.



Residents of Starlight Ranch in Orlando, FL at an MHAction membership convening and training.

credit: Kevin Bordon

“The people around you, they worry about you and drive you if you need to go somewhere.”

— Joanie

Social support and community cohesion contribute to good health

Social support from neighbors can translate into health benefits in concrete ways.²⁰ The strong social support found in manufactured home communities can reduce loneliness and improve mental health.²¹ And when people report better social trust, which is one way to measure community cohesion, they report better health and longevity.^{20,22,23} People who engage in more social relationships are less likely to experience heart attacks, whereas social isolation can increase heart rate and blood pressure.^{24,25} Strong social cohesion can operate in a variety of ways to create these health impacts. Friends and family may encourage healthy behaviors and influence one another.²⁵ There is also a biological connection between social support, coping mechanisms, and hormone and organ function.²⁴

About this Report

Our research methods included:^{3,4}

- 14 key informant interviews with Florida manufactured home community residents, legal/housing advocates, and other stakeholders
- A survey of 51 people living in manufactured home communities in Florida
- Three focus groups with 19 residents of manufactured home communities in Daytona Beach and Marathon, Florida
- Analysis of state and federal administrative datasets
- Review of academic and grey literature
- Analysis of media coverage of hurricane disasters and damage

In our methods, we asked about hurricanes in the last three years, including Hurricane Irma (2017) and Hurricane Michael (2018). Most residents, especially in the Florida Keys, responded about their experience with Hurricane Irma, which most directly impacted them and also caused widespread devastation in Florida.

Residents' voices and experiences — from our survey, interviews, and focus groups — are reflected throughout this report to tell their stories and highlight the benefits and challenges of living in land-leased manufactured home communities. Lessons from this project can inform legislators and other decision makers to develop policy solutions that improve the health and quality of life for all communities.

³ See Appendices for: glossary of terms, description of research methods, and strengths and limitations of research methods

⁴ Unless otherwise noted, all quotes are from manufactured home residents. In this report, we refer to people who live in manufactured homes as “residents.”

Residents Experience Exploitation from Community Owners

“We know in a year or two, we won’t [be able to] afford to live there.”

— Margie

Florida ranks 40th in the US in terms of protections for renters overall, giving much more power to landlords than renters.²⁶ While Florida law lays out the rights of manufactured homeowners, there are very few legal protections against exploitative actions by manufactured home community owners.^{9,27}

Manufactured home community owners can take advantage of loose oversight and create challenging housing conditions for residents — through arbitrary lot rent increases and rules and requirements — and disregard community services and maintenance. Even in the aftermath of a hurricane, some owners continue these exploitative practices and neglect their responsibilities to maintain the land they lease to residents.



Residents in North Fort Myers, FL are paying 68% of their income to Equity LifeStyles Properties.

Examples of how Florida’s legal protections for manufactured home residents fall short:^{9,27}

- Florida law doesn’t set numerical or percentage limits on lot rent increases to ensure they are reasonable and justified
- The state has effectively blocked local jurisdictions from adopting rent protections that would stop rent gouging and displacement
- The process that the law sets for manufactured home residents to challenge rent increases provides no standards or meaningful enforcement and puts the burden entirely on residents; as a result, it fails to protect residents
- Community owners’ responsibilities regarding community maintenance are vague and aren’t enforced by the State, allowing community owners to let the infrastructure and amenities fall into disrepair and pass their costs for basic maintenance onto residents
- Florida doesn’t provide a meaningful path for residents, nonprofits, or local governments to purchase communities when they are up for sale
- When a community closes or changes use, residents don’t receive enough assistance to relocate

Residents face rent increases and risks of eviction

Some community owners increase lot rents at dramatic rates, exploiting the fact that residents can't realistically move their homes off their lots. While transportable after construction, manufactured homes, especially older ones, are often not mobile after installation. Moving manufactured homes can compromise their infrastructure, and doing so is prohibitively expensive.²⁸ Community owners know that residents are essentially trapped and must choose between abandoning their home and paying the lot rent increase.

With no numerical or percentage limits on rent increases, residents can be forced to pay large, arbitrary, and unjustified increases in their lot rent fees.²⁹

“The rent has gone up 53% since [I came in.]...[The] rent was \$890 in October 2016, \$1,083 in December 2016, immediately after [the] hurricane...it was \$1,283 in 2017. Now it's \$1,423.”

— Emile

To deal with the financial impacts of rising rents, residents make sacrifices to food, clothing, gas, social activities, and living accommodations. Residents also end up staying at home more frequently, often alone, because they can't afford to socialize anymore. Research has consistently demonstrated that such conditions directly and indirectly affect health.³⁰

“They're skipping taking medicine — taking medicine every other day — and delaying buying groceries.”

— Margie



Residents in co-op manufactured home communities set their rent

Manufactured housing co-operatives, where residents all have an equal share of the land and equal input in decision making, as well as nonprofit and public ownership, can be alternative ownership models that protect residents' well-being and housing affordability.³¹

Residents living in cooperative manufactured home communities enjoy a sense of control, ownership, and teamwork that goes into managing a community together.

“We're managing the community together; everyone owns a share together. It's affordable for us — not paying a landlord for lot rent, splitting up the cost of taxes, common utilities.”

— Carl

Some internal dynamics, such as politics and differing views, can be expected and stressful at times. However, residents share that with patience and persistence, they can get over differences, find a way to work together, and get things done.

Residents on fixed incomes are especially vulnerable to unregulated rent increases

People who live on lower or fixed incomes, such as seniors who rely on social security, are especially vulnerable to the financial hardship of lot rent increases.³² Income from social security doesn't increase at comparable levels to lot rent increases.

Seniors feel vulnerable to the higher cost of living and a shortage of affordable housing options, should they need to move.

“For every senior that has to move out [because they can't afford rent], there's a younger person who wants to move in. It takes a toll, especially when it's going on all the time. \$10-15 might not seem like much, but to someone on a fixed income, I have to come up with the money somehow.”

— Kat

Senior residents report that they have resorted to moving in together to share rent burden — something they didn't expect to do in their retirement years. Because a fixed income isn't enough to pay for the increasing cost of living, elderly residents debate going back to work.

“I'm 81, and I can't go get a job. My wife's 82. She can barely walk, and she's gonna go get a job?”

— Angelo

Single or widowed elderly women who once relied on their partner's economic support are especially impacted by rising rent.

“If you're a widow, if your husband dies while in that park, you lose a \$1000 a month, if not more. And you can't make that up unless you go back to work, which most of the women are doing.”

— Midge

When residents can't afford to pay for lot rent increases, community owners threaten residents with eviction. Researchers have documented the devastating health effects of rising rents and eviction, including elevated blood pressure, insomnia, use of narcotics and illicit drugs, increased likelihood of stroke, cardiovascular disease, diabetes, and mental health outcomes like panic attacks and depression.^{28,33} The breakdown of community ties from displacement also removes sources of emotional and social support that could otherwise help residents cope with stress and isolation.²⁴



Cathy and Pat in North Fort Myers, FL are paying 75% of their income to Equity LifeStyles Properties.

Exploitative owners create arbitrary rules and neglect upkeep

“He’ll come along and invent a rule...it’s arbitrary.”

— Focus Group Participant

In addition to raising rents, community owners can burden residents by: requiring costly upgrades or additional features to homes, refusing residents’ requests to make changes to their homes, failing to provide promised amenities, and neglecting community upkeep.

Community owners’ rules can be confusing, vague, and inconsistent. Residents are unclear about who is responsible for what — and this changes year to year. Ultimately, residents are burdened with unexpected costs related to community maintenance and amenities like new landscaping and mailboxes, parking their cars, and having guests over.

Community owners sometimes also retaliate against residents for voicing concerns related to rent and community maintenance. They also do little to address community needs, despite having the financial means to do so.

[Case Study]

Nellie used to love living in her community — now she’s stressed by the rising cost of living

Nellie lives in an age-restricted (age 55+) land-leased manufactured home community managed by a corporation, Equity LifeStyle Properties, in North Fort Myers, Florida.

After her husband passed away, Nellie moved to Florida from Ohio in 2011 to stay with her sisters. She had a great time with her sisters — they enjoyed socializing, going to the beach, going out to dinner, and going to dances. One of her sisters passed away, one moved, and another is living in an assisted-living facility. Today, Nellie lives on her own, with her two dogs.

Nellie is frustrated with the rising rent and way the community is being run. Any slight increase to her Social Security income (which comes from her husband) is pointless because most of her income goes toward rent. Nellie feels that a lot of demands from community management are unnecessary and a costly burden to senior residents on fixed incomes, like herself. Management requires residents to pay for things like upgrades to the clubhouse (which she doesn’t use) and replanting palm trees (which she thinks were fine to start with).

Aside from rent, Nellie has a lot of expenses to think about:

“Everything else goes up, too — the car payment, insurance ...doctors’ appointments have co-pays.”

To save money, she no longer goes out to socialize. She stays home alone and is thankful for her dogs, who keep her going.

“They [the corporate community owner] have three million [dollars] a year coming in from our park, and you say our pool needs fixing, trash needs to be addressed... trees need trimming. And they say this is your budget and this is what we can do.”

— Angelo

Residents reported occasions when community owners limited access to or failed to maintain basic municipal services like electricity, water, sewage, and trash disposal. Residents in community settings are more likely to report issues like sewage system breakdown, going without running water, and water being unsafe to drink compared to residents in conventional, site-built homes.¹⁶ These sorts of environmental conditions can put residents at risk for air-borne and water-borne illnesses and make residents sick, such as when raw sewage spills into their yards.

When local government agencies find that the community is poorly maintained, communities as a whole are at risk of closure, and residents experience displacement and face challenges finding alternative affordable housing.^{28,34}



Residents organize for better protections

Through organizing and coalition building, manufactured home residents around the country are fighting for strong protections that will improve health and well-being.³⁵ For example:

In New York State, a statewide coalition of tenants and manufactured home residents — the Upstate/Downstate Housing Alliance — won a decade-long fight for protections against rent gouging and tenant exploitation. Now, along with historic new protections for renters, manufactured home community owners must justify rent increases above 3% based on operating cost increases, and cannot impose rent increases above 6% unless a court finds a specific hardship — and even then, the increase is only temporary.³⁶

In New Hampshire, owners of manufactured home communities who want to sell their property must consider and negotiate, in good faith, any offer made by the residents.³¹ This policy can help empower community members, give them more control over their lives and properties, and alleviate stresses related to eviction and relocation.³¹

Climate Disasters Compromise Health

“I’m 90 years [old]. I’ve been around a long time. I’ve seen a lot of destruction in the world. I haven’t seen anything to the magnitude I’ve seen here.”

— Ed

Florida’s manufactured home communities are concentrated along the Gulf of Mexico and the coast, with Hillsborough and Pinellas Counties accounting for almost 20% of manufactured home communities in the state.³⁷

Because of their location along the coast, these communities are particularly prone to damage from climate disasters, including:^{38,39}

- Rising water temperatures
- Rising sea levels
- High-tide flooding
- Coastal erosion
- Higher storm surge
- Heavy precipitation events



Damage by Hurricane Irma.

Currently, 1 in 3 manufactured homes in Florida reside in the 100-year floodplain, which federal guidelines designate as areas at high risk of flooding.^{40,41} Additionally, about 1 in 4 manufactured homes are located in a storm surge zone, where they’re at risk of flooding 1.5 feet or more in a hurricane.^{40,42} The storm surge is water pushed on shore by a hurricane, and is considered the deadliest part of a storm.⁴³

Hurricanes Irma and Michael caused devastation across Florida

Hurricane Irma made landfall in Florida on September 10, 2017, as a Category 4 hurricane, impacting the entire State, especially the Florida Keys. High winds damaged power lines, storm surges caused flooding, and millions of residents were evacuated and lost power.

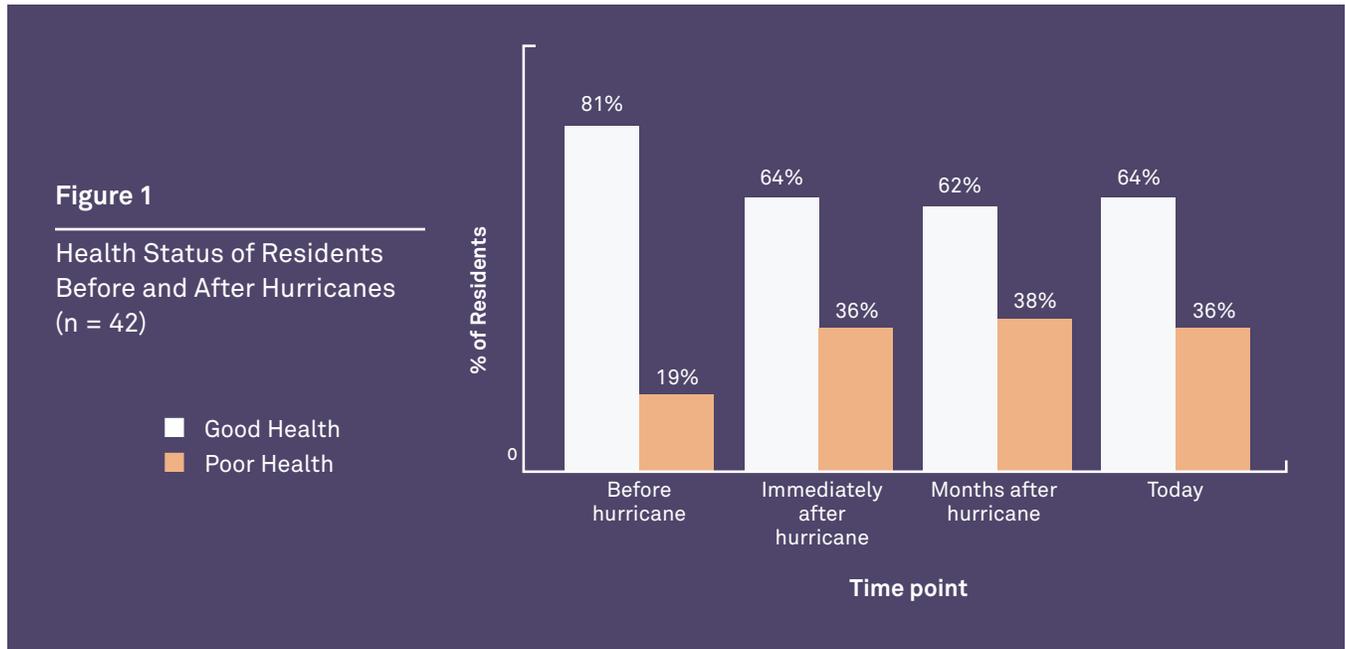
A total of 129 people died as a result of Hurricane Irma, and all but six deaths took place in Florida. The majority of deaths (n=115), resulted from exacerbation of existing medical conditions that were worsened by stress and anxiety, power outages, and lack of air conditioning.⁴⁴

Two years later, Hurricane Michael touched down in the Florida Panhandle on October 10, 2018, as a Category 5 hurricane with wind speed of 161 mph.⁴⁵ Storm surges were as high as 14 feet. Seven deaths were attributed to the hurricane, due to fallen trees and buildings from storm surges and winds. There were 43 indirect deaths due to a variety of reasons, including underlying illnesses that were exacerbated by the hurricane. Most people who lost their lives were seniors.

Stakes from climate disasters are high for residents

“Every year I have an annual physical. I’ve always had a high blood pressure like 175/80, that’s been normal for a long, long time. After the hurricane, my first doctor’s visit, I was like 220/111. Right now, today, my blood pressure is still high.”

— Focus Group Participant



Damage to infrastructure creates conditions for fires, storm surges, flooding, and loss of power, all of which can directly and indirectly harm the health of residents and communities.

People of color and people living in poverty are more likely to be “climate vulnerable.”⁴⁶ They are more likely to live in places that lack infrastructure for disaster preparedness. For example, communities with a history of disinvestment are less likely to have storm warning systems and adequate sewer systems compared to wealthier communities.⁴⁷ These groups also feel the impacts of climate disaster more acutely through exacerbation of existing chronic conditions, increased emergency room visits, and worse mental health outcomes.^{46,47,48(p)}

Before recent hurricanes, most residents in our survey reported good, very good, or excellent health. After experiencing the hurricane, its destruction, community owner abuses, and the economic insecurity that followed, fewer residents reported good health, both immediately after the hurricane and months later. More than two years after the recent hurricanes, manufactured home residents haven’t bounced back (see Figure 1).

Chronic and traumatic stress harm health

Stress is a normal part of everyday life. However, stress that is chronic (or ongoing) and traumatic (such as living through an intense natural disaster) can have long-lasting and damaging effects on health.⁴⁹ Exposure to compound stressors — which manufactured home residents in land-leased communities experience through financial exploitation from owners and unlivable conditions due to hurricanes — is linked to particularly poor health outcomes among low-income communities.⁵⁰

Ongoing activation of the body’s stress-response system as a result of persistent stressors sends a constant stream of hormones and neurotransmitters from the brain to organs and organ systems through the bloodstream. Over time, elevated blood pressure can damage arteries and lead to cardiovascular disease.⁵¹ High levels of stress hormones also suppress the immune system, which increases vulnerability to infections and autoimmune diseases.

Mold contamination poses serious health hazards

After hurricanes make landfall, manufactured homes, especially older homes, often experience structural damage, including holes in roofs, sagging roofs, sloping walls, broken windows, and cracks or holes in foundations.⁵² Hurricanes also rip apart porches, carports, and home panels — and flying debris can damage nearby homes.

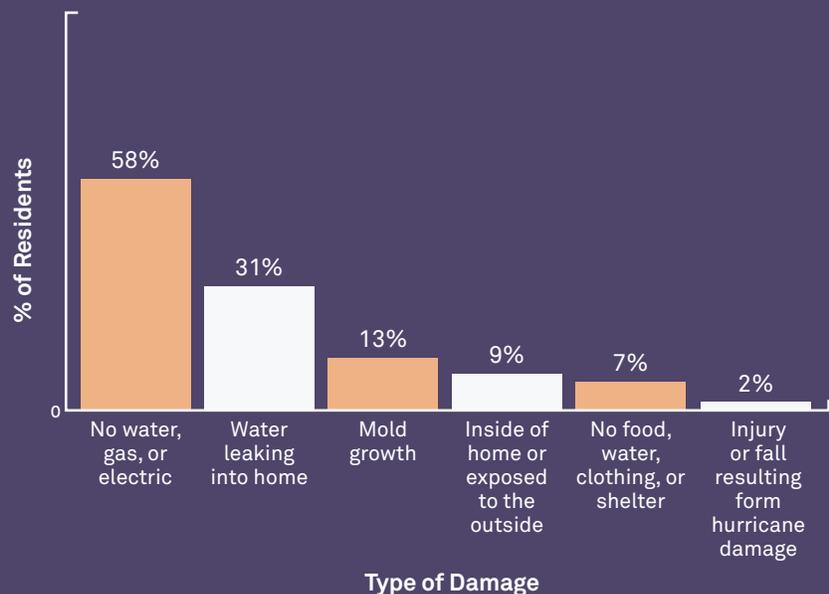
Structural vulnerabilities make it easy for water and flood damage to occur. Almost a third of residents in our survey experienced water leaking into their homes (see Figure 2). Residents came home to find their communities and homes full of standing water.

“Everything was a mess.”

— Emile

Figure 2

Hurricane Damage Reported by Residents (n = 45)





Storm surges and flooding can sweep water into homes and communities, leading to drowning and conditions for water-borne and mosquito-borne illnesses.^{53,54} Flooding can also affect air quality when sediment containing toxic chemicals such as petrol and asbestos is kicked up and spread around.⁵⁵

Perhaps the most common and extensive problem to arise after flooding is mold contamination.⁵⁶⁻⁵⁸

“[It’s] now 2.5 years and I’m walking on 4x8 plywood so that I don’t go through the carpet in my bedroom. I’ve never looked under the carpet. ’Cause I’m probably afraid to. I’m almost positive [there is mold]. I don’t want to cut it to look, so that it comes through. I slept out in the living room for probably eight to nine months because I was afraid to sleep in there.”

— Jeanne

Mold can appear within 48 hours after a hurricane and affect almost 50% of homes in some places.^{56,57} Mold is extremely challenging to get rid of, even in the best of circumstances, because of how fast it spreads and how resistant it is.

“I saw black mold in the back of the wall, the shower where the water was leaking in. I didn’t know where it was coming from. I found mold in the kitchen, under the stove, and black mold inside the cabinetry.”

— Beth

Mold growth and exposure to mold is a long-term health threat posed by hurricanes.⁵⁸ Indoor exposure to mold has been linked to upper respiratory tract symptoms, coughing, and wheezing in otherwise healthy people. Mold exacerbates these symptoms in people who have asthma and other respiratory conditions.^{57,58}

Residents are often afraid to know about the health effects of the mold:

“I don’t even want to know how it affected my health because we breathe more mold, more dust, more everything, and because you can’t wear a mask 24/7 but [you’re addressing] the mitigation of the mold under your place, tearing up the insulation...it’s hot, it’s black mold. I don’t care how many masks or respirators you put on. I know I breathe more dust and mold. I’d probably be afraid to have an X-ray of my lungs.”

— Focus Group Participant

Hospitals often see an increase in visits for respiratory illnesses following hurricanes.⁵⁹ Residents share that they’re visiting the doctor more now than before the recent hurricanes.

“I’m going to the doctor more often. [There’s] mold in my house. I have bronchitis quite often and I didn’t get it before...My health issues have really come up since the storm came through.”

— Jeannie

Utilities, including power, are often unavailable

Residents went for days, weeks, even months after the recent hurricanes without access to power, sewage, and water services. The majority of residents who participated in our survey didn't have access to utilities like water, gas, and electricity after the hurricane (see Figure 2). When residents lack power for long periods of time, health issues can go on unaddressed, and people may be unable to physically access needed services and care. They might be unable to cook, store food, or refill medications to manage their health conditions.

“I sleep with a breathing machine at night — there was no electricity.”

— Angelo



Hurricane damage to mobile home in Davie, FL.

Residents may resort to gas as an alternative form of electricity, which is expensive and poses the risk of carbon monoxide poisoning.⁵⁸ Some manufactured home residents ended up renting or purchasing generators, which they ran constantly, and fueling generators with gas for several weeks, which became extremely expensive.

Community owners fail to help and exploit distressed residents

“I’m scared to death of what ELS [Equity Lifestyles Properties, corporate community owner] will do to me. I don’t have money. Are they going to make me move? Some people can’t afford it. We go to the food bank for groceries.”

— Nellie

Community owners are responsible for the general upkeep of manufactured home communities, including addressing environmental hazards and providing access to utilities. But these responsibilities are vague and generally the state doesn’t enforce them, even after a hurricane. Residents report receiving little or no support from community owners during the recovery period. Half of surveyed residents didn’t receive support or assistance from their community owner, and about 55% of those who did receive support were dissatisfied or somewhat dissatisfied with what their community owner provided.

Some residents reported not seeing community managers for days or weeks after Hurricane Irma. Some community owners even hindered recovery efforts by failing to provide basic services like water, sewage, and electricity in the community, which they are required to do by the state.

“The owners refused to turn on electricity for two to three months. They tried to shut water and sewer off, too.”

— Focus Group Participant

[Case Study]

Emile’s community owner blocked aid and removed residents’ personal property without their permission

“The hurricane took a lot of peoples’ homes, but people couldn’t recover because of [our community owner] Ralph.”

Emile lives in a land-leased manufactured home community in the Florida Keys. Unlike many of his neighbors who left Florida before Hurricane Irma hit, Emile stayed home and saw the impacts of the hurricane firsthand. Emile didn’t have access to electricity and communication for weeks and had no means of learning about and applying for disaster recovery programs. The community owner even prevented FEMA from reaching residents:

“FEMA was coming in to offer trailers to people because their trailers were so damaged that they couldn’t live in them. Ralph would not allow [FEMA] to put temporary trailers in there for temporary housing for people. He refused to let them in. He even kicked out the National Guard while they were there cleaning up and helping people out.”

Emile reported that the owner went even further than disallowing FEMA’s help and directly took advantage of residents by reselling their profitable belongings:

“The owner had come in with a big dump truck... What he did alongside cleaning up the mess...is he was taking people’s sheds and removing them, full of people’s contents. He took parts and sold them to other residents.”

With no access to these basic services, residents were forced to live off-site or rent and fuel expensive generators on-site for long periods of time.

Owners further created stress for residents during the recovery period by requiring rent, even when homes were vacant or uninhabitable; increasing lot rent fees; preventing new construction on residents' lots; and requiring costly repairs by a deadline. The consequence for not abiding by these demands was the threat of eviction.

Most surveyed residents felt stressed about rent increases both before and after the hurricane (76%):

“When you go into negotiations for your rent increases, with ELS [Equity Lifestyles Properties, corporate community owner], it’s like pulling teeth or pulling hair to try to get them to understand that there is damage in the park. Why are you increasing our rent, \$15, \$20, \$20, sometimes \$25 a month?”

— Jeanne

Owners also required residents to make costly repairs to their units to comply with community guidelines. If residents didn’t make repairs, they faced fines, and even eviction.

“But it’s in the rules ...‘you must fix your carport.’ If you don’t, you’re going to get an eviction. And the company starts to threaten you with evictions if you don’t get your carport fixed — 2.5 years later and it’s still stressing people out. People are abandoning their homes.”

— Jeanne

Community owners neglect their responsibilities to residents

Manufactured home community owners are required by law to:

- Maintain insurance
- Confirm homes are correctly zoned for weather and wind conditions
- Ensure that homes are following safety codes
- Adhere to environmental inspections of water supply, sanitation, plumbing, garbage disposal, and insect and rodent control
- Remove items that could damage homes or vehicles, harm residents, or block roads
- Keep utilities connected and running, including electrical, plumbing, gas, water, and sewage^{10,27,60}

Community owners must address issues within three days and provide alternatives if services are interrupted, but this can be difficult without adequate preparations ahead of storms. The Florida Manufactured Housing Association (FMHA) puts together hurricane-preparation manuals and workshops for their community owner members. FMHA says many members have downloaded these resources, but it’s unclear to what extent they’ve used them.

When residents can't afford to pay increasing rent, comply with costly repair requests, or physically move their home, they sometimes walk away from their home.

“People who had a lot of damage just walked away from everything they owned and worked for their entire life.”

— Kat

Community owners profit off of abandoned homes by selling or leasing them — often in damaged conditions, at higher rates — to families who are desperately seeking a new home, even if the home is unlivable:

“We rushed to buy a new home. The park owners said it was in good shape, but it wasn't. Once we moved it, we saw black mold in the back of the wall, the shower. Water was leaking and [we] didn't know where it was coming from.”

— Beth

When residents are forced to abandon their homes or experience eviction, the culture of the community changes — this can be devastating in tight-knit community settings where residents rely on and support one another.

“We have nice people living here that I can talk to, but everyone has their own issues. Neighbors have changed dramatically ...we don't have the social life and camaraderie that we used to have.”

— Kat



Galway Bay Community in Marathon, FL where residents are facing dramatic rent hikes and abusive practices.

Photo credit: Elisabeth Voigt

Social ties are associated with better health outcomes after weather disasters.⁴⁷ And yet, manufactured home communities face the threat of community closures after hurricanes. In some parts of Florida, outside developers are targeting hurricane-devastated communities as an opportunity to come in and purchase homes and communities. Their plan is to redevelop the land for vacation homes — advocates share that this is creating further strain on the housing market and eliminating options for affordable housing for residents.

Residents experience harmful health effects over time

Immediately after hurricanes, mental health issues can rise dramatically — as much as two times — and post-traumatic stress disorder (PTSD) symptoms can impact up to 50% of people.⁶¹ One of the most common mental health impacts after natural disasters is depression, which is linked to experiences of fear, injury, or bereavement during the disaster.⁶² Advocates report that mental health symptoms are the first noticeable signs of distress, and residents say they had to go to the hospital because of the stress and anxiety.

“Everything I did, I ran out of breath. [The] doctor sent someone to close up my house. [I] had a heart attack that night, I spend a few days there [out of state], I came out of the hospital and came down here [Florida]. I couldn't breathe again and I got real bad. I had another heart attack. I spent another six to seven days there [in the hospital].”

— Ed



Participants in Daytona Beach, FL focus group, sharing their struggles after Hurricane Irma and frustration with the recovery programs and their corporate owners.

Mental distress can be ongoing. Two years after Hurricane Irma, manufactured home community residents continue to feel distress from the hurricane destruction and even anxiety about future weather disasters.

“Emotionally, I feel depressed. Something like this is so devastating, and you don't know what is coming.”

— Kat

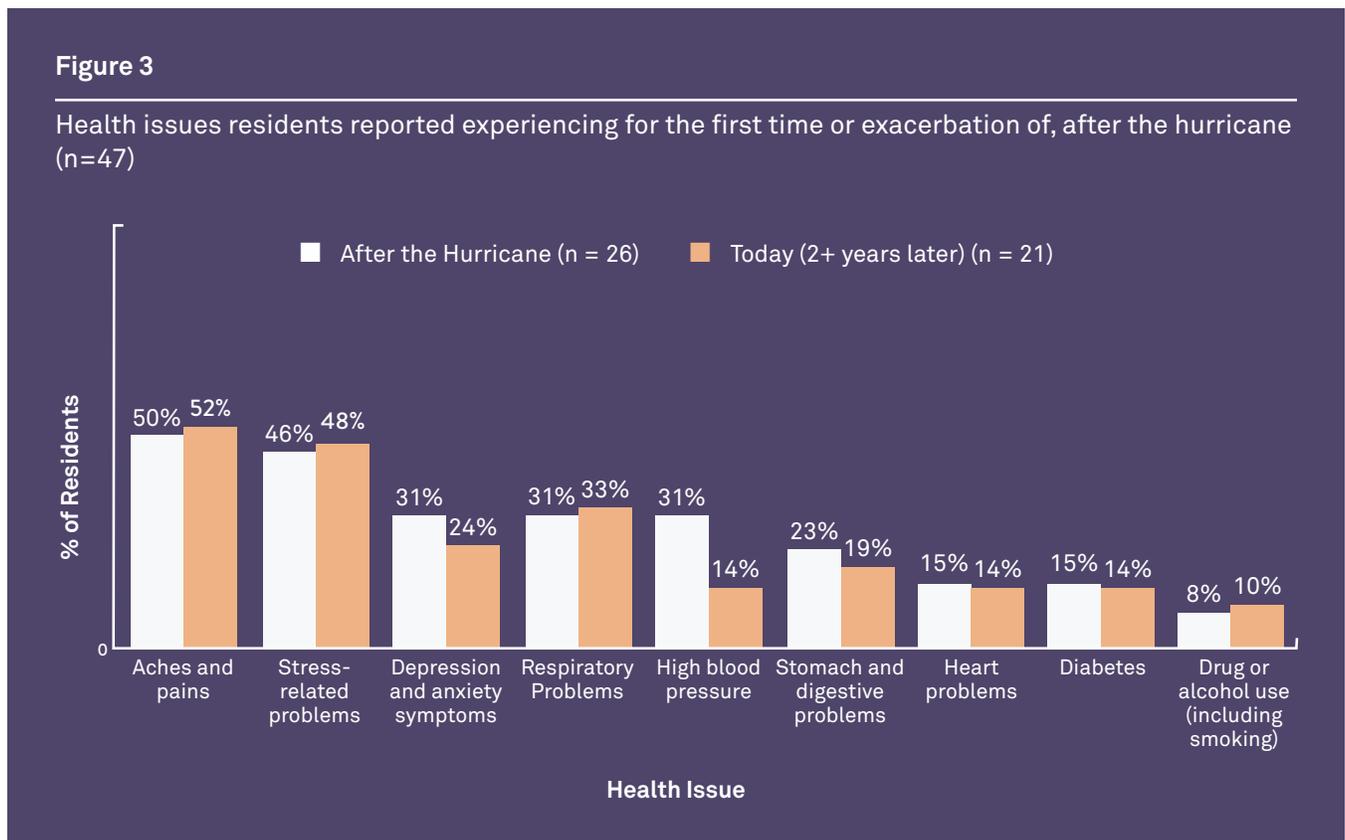
Damage to housing and loss of property are also associated with depression in survivors.⁶² Residents lost personal belongings, including furniture, appliances, cars, golf carts, tools, and other items stored inside and outside their home, due to flooding. These homes give a sense of pride to residents, and the resulting damage can be frustrating:

“[My] porch is unusable. [I] loved using the porch. [I] had redone it and decorated it, and now it's a mess.”

— Nellie

Residents often report an increase in stress-related health conditions, such as chronic fatigue syndrome symptoms, months after hurricanes.⁶³ Survey participants reported worsened existing health conditions or conditions for the first time after the hurricane, including aches and pains (50%), stress-related problems (46%), depression and anxiety symptoms (31%), respiratory problems (31%), high blood pressure (31%), and stomach and digestive problems (23%) (see Figure 3).

Many health concerns continued two years later and even worsened. For example, aches and pains, respiratory problems, and stress-related problems such as headaches and exhaustion, continued over two years past the hurricane.



Health impacts are worse for those with limited resources

“If you are a poor person like me, you don’t have money to fix things.”

— Jeanne

Manufactured home residents are disproportionately low-income and have limited financial resources to make costly repairs to improve the conditions of their homes at the will of predatory and abusive community owners — this means that residents experience an undue burden of ongoing stress and exposure to environmental hazards.

“[It’s] hard to see others around you go through so much. Properties are sitting there. I can’t help anyone either, monetarily. [I’m] not flush [with money] that I can help. You walk around communities, [it] breaks your heart. There are homes with trees inside [them].”

— Midge

Residents sometimes sacrifice their health because of the cost of recovery efforts:

“A lot of people who experienced damage were seniors, and they did not have the money to come back [to community]. I do the best I can, skip a meal or medication, or I barely drive my vehicle. I might let my lease go to save money.”

— Kat



Participants in Daytona Beach, FL focus group, sharing their struggles after Hurricane Irma and frustration with the recovery programs and their corporate owners.

Disaster Recovery Programs Fail to Meet Residents' Needs

“They [FEMA] told me I’m not qualified. I applied for everything that I could learn about, and they told me I’m not qualified. I did everything I was supposed to do, and they did nothing.”

— Kat

Residents in manufactured home communities are frustrated with the cost of repairing hurricane damage to their homes and the increasing cost of living from lot rent hikes — and they’re experiencing the mental and physical health effects of these stressors. The goal of government disaster recovery programs is to bring homes up to safe, sanitary, and functional living conditions. The reality is that these programs aren’t achieving this goal, and manufactured home residents and other low-income communities are slipping through the cracks.

“They’re always saying we are going to be there to help you — but there is no one ever there except your neighbors and your friends, and that's the sad part about it.”

— Angelo

The Federal Emergency Management Agency (FEMA) and Small Business Administration (SBA) programs, which are intended to support housing repair and replacement after a disaster fail to adequately support manufactured home residents. The Rebuild Florida Housing Repair and Replacement Program is one of the first state-level programs to specifically serve manufactured home residents. However, low awareness and uptake, as well as delays and program requirements, have so far limited the program’s effectiveness.



Instead of improving residents’ living conditions, state and federal disaster recovery programs are unintentionally prolonging residents’ exposure to stress and poor health by setting up program requirements that prohibit manufactured home residents’ access to them. Table 1 illustrates key programs and describes eligibility requirements.

Table 1: Federal and State Programs for Residents to Address Housing Damage

Program	Program Description	Examples of Eligibility and Documentation Requirements
Federal Emergency Management Agency (FEMA) Housing Assistance (Individuals and Households Program) ⁶⁴	<ul style="list-style-type: none"> • Temporary housing (funding to rent residence or provision of temporary housing unit) • Funding to repair home damage not covered by insurance, up to \$33,000 • Funding to replace home (in rare conditions) up to \$33,000 	<ul style="list-style-type: none"> • Residency status and proof of identity • Documentation for eligibility, including property title • Flood insurance purchase requirements and local flood code requirements if the home is in Special Flood Hazard Area
Small Business Administration (SBA) Disaster Assistance Loan ⁶⁵	<ul style="list-style-type: none"> • Low-interest long-term loans to repair or replace primary residence, up to \$200,000 	<ul style="list-style-type: none"> • Credit history and repayment (acceptable credit history and ability to repay all loans) • Insurance may be required. Borrowers in flood hazard area must purchase and maintain flood insurance for life of loan⁶⁶
Rebuild Florida Housing Repair & Replacement Program, Florida Department of Economic Opportunity ⁶⁷	<ul style="list-style-type: none"> • Repair, reconstruction, and replacement services from qualified contractor to address remaining unmet needs, capped at \$150,000 per household 	<ul style="list-style-type: none"> • Funding is prioritized for low- to moderate-income residents, seniors, families with children ages 5 or younger, those with special needs • Residents are required to purchase flood insurance if their home is in a designated flood plain, or other reason

Few residents are eligible for federal assistance

“She [neighbor] hadn’t smoked in 14 years. She didn’t qualify for anything with FEMA. She started smoking again because she’s so stressed and also not sure how to deal with the coming summer.”

— Margie

OpenFema provides datasets on individuals, businesses, and government agencies that apply for grants to help pay for assistance for disaster-related temporary housing, home repairs, property loss, and other needs. After Hurricane Irma, almost 9,500 mobile/manufactured home residents applied for FEMA’s Individuals and Households Assistance Program. FEMA inspectors evaluated more than half (57%) of these homes and deemed just 5% of homes eligible for repair assistance. Less than 1% of manufactured home residents were eligible for an SBA loan.⁶⁸ (See Appendix B.)

Further, many residents who experienced hurricane damage didn’t even apply for assistance from federal programs. About 40% of surveyed residents indicated that they weren’t eligible for FEMA assistance, and 27% didn’t seek it. Similarly, 36% of residents reported that they weren’t eligible for an SBA loan, and almost half (46%) didn’t seek loan assistance.

Those who did apply faced challenges that slowed their housing recovery. According to advocates and residents, these federal programs denied assistance to manufactured home residents for various — and sometimes vague — reasons:

- The damage was not severe enough
- The part of the home that was damaged (e.g., carport) didn't qualify for assistance
- The home was located in a non-disaster zone
- The resident wasn't a permanent resident
- The resident had existing financial assets (e.g., life insurance)
- The resident wasn't "extremely low-income," or didn't make enough income, in the case of securing an SBA loan

Some residents who didn't receive assistance from FEMA experienced deterioration to their home months after the initial inspection. Home damage like mold growth can take time to become visible:

"[I] didn't know about leaks at that time. They [FEMA] saw the shed and porch and said I didn't qualify. When it rains, [there's] two inches [of] standing rain in living room. [We] cut [a] piece [of] ceiling out — it had black mold. [There's] water in [the] guest bed, closet, and now in the master. Leaks and mold are everywhere. [They] didn't see water marks originally."

— Nellie

Unaddressed exposure to environmental hazards introduced and worsened health conditions for residents.

"Its aggravating, I'm easily depressed, I'm on antidepressants now."

— Nellie

Emergency assistance can exacerbate inequities for low-income people and people of color

Disaster assistance programs, like FEMA's, may increase economic and racial inequities because applications often require tedious resources beyond the capacity that many low-income people, including seniors, can realistically afford.

Most programs require substantial documentation of damage and homeownership (e.g., title paperwork), which may necessitate hiring damage assessors and lawyers, and taking time off of work — all of which place greater financial burden on low-income people. Some programs require documentation of resident status or a social security number, leaving undocumented families vulnerable to the threat of deportation, and therefore hesitant to seek necessary assistance.

People with access to monetary, time, and social resources, including job-protected time off and financial assistance from employers, have an easier time with the recovery process.⁶⁹ They're also more likely to have insurance and benefit from private insurance claims. Overall, these groups rebound and recover more quickly than vulnerable communities.

Recovery programs fail most vulnerable groups

Residents who had a second home or a relative or friend's home to escape to had some stability and resources to apply for assistance as soon as the application period opened. But residents who stayed in their community had fewer resources to lean on and often received delayed communications about programs and services.

“I was here ...no water, no electricity, no internet, no phone service. By the time we did get electricity and internet, 1.5 to 2 months went by and the programs were closed up. I ended up getting basically nothing from FEMA.”

— Emile

Advocates report that the most vulnerable groups — the elderly, low-income families, non-English speakers — were left without assistance. Undocumented families, even those with US-born children who meet eligibility for federal assistance, fear risk of deportation. Advocates are concerned that FEMA may share applicant information with other federal agencies, such as the Department of Homeland Security (DHS) and Internal Customs Enforcement (ICE). They report that it just isn't worth it for immigrant families to apply for disaster recovery assistance:

“The risks outweigh the benefits. The risk in this case is deportation. Undocumented families are not recommended to apply given the current political climate.”

— Maria Alvarez, Legal Services of Greater Miami, Inc.

Recovery inspections and assistance are inadequate

While some residents reported positive experiences with FEMA, residents generally reported that FEMA inspectors placed numerous obstacles in the path of obtaining assistance — and ultimately, assistance was insufficient. Two-thirds of surveyed residents experienced challenges in seeking assistance from FEMA, and 87% reported the experience to be stressful.

For example, it was often challenging to gather extensive documentation of loss when property and title documents were damaged or missing due to the hurricane. For manufactured home residents, title paperwork might sit with the previous resident or with the owner, and can be difficult to obtain.

Inspectors also questioned the source of the damage, which was frustrating for residents:

“They do get very rude, because you're sitting there trying to figure out what you need to learn, how you need to fill out paperwork, what you need to explain to them — is it doing damage to the inside? Well, you're telling them yes, and they're saying, ‘Well, I don't see anything.’ Well, wait a minute, let me show you underneath. The water's running through. [They say,] ‘No, no, that doesn't count, that could have been from before.’ They nitpick to the point where you feel like, ‘I'm wasting my time, I'm wasting their time, and why did I even bother?’ ”

— Midge

Several residents also described inspectors as lacking training and FEMA being short-staffed, which contributed to delays in inspections and assistance. Advocates report that inspectors, as well as other FEMA program staff, don't offer services in languages other than English — and inspections, a critical step toward receiving assistance, were an obstacle for residents who speak primarily Spanish.

Most reported getting no money or not enough money — 82% of surveyed residents were dissatisfied with the funds FEMA provided for recovery. Often, this was insufficient to make homes livable again.

“What little FEMA helped with, I can’t bring it up to be at health levels, never mind aesthetically.”

— Kat

Insurance requirements block access to federal assistance

“[The] majority of people absolutely can’t afford to have any kind of insurance on their homes — most people don’t have insurance on mobile homes, can’t afford it.”

— Margie

About half of manufactured home residents don’t have insurance on their home because it’s financially prohibitive.⁷⁰ Among manufactured home residents who applied for FEMA’s housing assistance program, 22% have homeowners insurance and about 1% had flood insurance — disproportionately fewer than residents who live in condos, apartments, and site-built homes.⁶⁸

Some federal programs require residents to sign up for flood insurance in order to receive current or future assistance. For example, FEMA’s housing assistance program will provide financial assistance to applicants but requires that applicants sign up for flood insurance to receive future assistance. Additionally, the assistance is tied to the property, so if a previous resident of the home benefitted from the assistance, the current resident must already have insurance established.

Most manufactured home residents can’t rely on private insurance

Homeowners insurance is far more expensive in Florida than the rest of the country, and it’s more expensive for manufactured homeowners than owners of site-built homes.^{6,71,72} Eighty-six percent of surveyed manufactured home community residents without insurance cited cost as a barrier to getting coverage.

Additionally, standard homeowners insurance doesn’t offer coverage for flood damage, which residents need to buy separately. Often, manufactured home residents don’t qualify for insurance because their homes are too old. Almost 40% of survey respondents weren’t eligible for insurance. Even when residents have insurance, most expressed stress with the application process (66%), as their damages might not qualify for claims:

“Our insurance company at that time would not pay to have the roof completely repaired, just patched, and did not consider the vapor-barrier damage to be enough to warrant coverage. In total, we paid over \$8,000 to repair the damage out of our own savings.”

— Survey Participant

This means that residents have even fewer resources to draw on in the wake of a natural disaster, elevating the likelihood of prolonged hardship and exposure to hazards and stress that can impact their health.

If residents apply for FEMA assistance and comply with the insurance requirement, they could jeopardize their financial stability because flood insurance is too costly for lower-income manufactured homeowners. Residents who apply for and accept assistance but don't comply with the insurance requirement are at risk of not receiving support from FEMA in the future, which places them in a vulnerable situation during future weather disasters.

“I think that that’s an outrageous policy, just to simply give someone some money to exclude them from future benefit.”

— Emile

SBA also requires insurance if applicants accept the loan. Residents who applied for an SBA loan to address home damage were frustrated with this requirement, as well:

“If you get the SBA loan, you’re committed to pay the insurance. If you get that SBA loan for a certain amount of money, you’re automatically gonna have to pay that premium for the insurance.”

— Focus Group Participant

[Case Study]

Carl experienced homelessness after unrealistic demands from the City and ineffective assistance from the State

Carl, a 72-year-old retired minister, lives in a co-operative manufactured home community. His home was completely destroyed by Hurricane Irma. Carl applied for and received funding for housing assistance from FEMA, which he used to purchase a new manufactured home.

Carl was more fortunate than many manufactured home residents because he lives in a cooperatively owned community and doesn't deal with an abusive community owner. Additionally, his FEMA application did not hit the roadblocks many others experienced.

However, the City of Marathon delayed sharing information about revised codes for installation of manufactured home units. It turned out that Carl's new home wasn't up to the new standards, despite his multiple attempts to communicate with the City in advance.

The City wanted Carl to remove his home immediately. Carl spent hundreds of dollars on an appeal and told the City that evicting him would result in his becoming homeless. Carl stated that:

“This had no effect on their uncompromising effort to evict me and force me to remove my new home, at great expense.”

Carl didn't have any money left to re-house himself and had no choice but to leave Florida to live with family up North. He applied for the State's Rebuild program but the process has dragged on for so long that he is giving up hope.

“This is not good for me. I’m in poor health compared to a year ago. The stress is constant — every day, I’m trying to figure out how to get my home back. How to afford it, how to do it. I’m older now, I can’t do this stuff. I’m basically homeless.”

Rebuild Florida presents similar and additional obstacles

Florida's Rebuild program seems to be a promising solution for manufactured home residents who are ineligible for federal assistance, or who didn't receive enough assistance to address home damage.

According to the Florida Department of Economic Opportunity, 2,941 mobile home residents have registered to apply to the Rebuild program as of July 2019. Mobile home residents made up 20% of total registrants. Of mobile home residents who registered, 29% (or 865) were invited to formally apply, which is the next step toward receiving repair or replacement assistance.

Unfortunately, this program has significant barriers in its uptake, including a lack of awareness among residents. More than 1 in 5 surveyed residents didn't know about the program, and 38% didn't apply for the program. Furthermore, residents aren't applying for Rebuild because it requires them to stop making repairs to their home until they receive approval:

"[They] told us to stop what we were doing, and I said there's no way...it's not workable if you already started the process. So, they were no help to us. Finally, I said, why continue this because you want us to stop what we're doing, because for us, we don't have a place to live, so we got to go on."

— Hens

Asking residents to pause on home repairs more than two years after the hurricane was seen as an unreasonable request, given that residents' living conditions were at stake, community owners were continuing to threaten residents with fines or eviction due to unrepaired damage, and residents faced the reality of ongoing severe weather events.

Residents also reported challenges in understanding program eligibility, contacting program staff, and receiving information from program staff about a timeline that one could plan around:

"When you call them, [they say]: 'We don't know when it's going to start — just hang in there, we have your application.'"

— Carl

Residents report that the program is taking far too long to be helpful, as residents haven't heard back about their application status and notice of approval. The waiting period causes stress and frustration:

"I'm waking up every day thinking I'm going to hear something. I'm checking every day. Waiting to hear has increased my stress, and affects my health negatively."

— Carl

Waiting also puts residents in a financially vulnerable situation. One homeowner questioned the value of applying for the program:

"They want to wait until the grant is approved, and there's still no guarantee that the grant is going to be approved. So, I get caught between renting my FEMA trailer for six months to a year for \$1400/month — that's 18K a year. I could have put that money toward my foundation. And put the house on it, and move on."

— Jim

In addition, Rebuild requires residents whose homes were damaged by flooding to obtain flood insurance. Similar to the requirements from the federal programs, this poses an unrealistic and costly requirement for manufactured home residents.

Ultimately, only a limited number of manufactured home residents can benefit from the program. The program will not repair damaged manufactured homes that are older than five years old (homes built before 2012).⁶⁷ Instead, these homes must be replaced. Advocates have expressed concerns because the vast majority of homes are over 5 years old, and it isn't clear that the state has a plan to fully replace all homes of eligible applicants. Further, all manufactured homes built after 1994 must comply with updated federal state guidelines for safety during severe weather events. Advocates question why the State is excluding many of these homes from the repair program.

Towards Recovery, Affordable Housing, and Good Health

Manufactured home residents are organizing in the face of increasingly unaffordable housing; economic instability; heightened stress; worsening health; and exacerbation of inequities among seniors, immigrants, and low-income families. They are sharing their stories, organizing their neighbors, and connecting with others who face housing and recovery injustices to build a path toward recovery, affordable housing, and good health.

Based on our research, we propose approaches to address the harms that manufactured home community residents are experiencing. Decision makers — lawmakers, government agencies, and community owners — need to work in partnership with residents and advocacy organizations to promote policies and programs that advance affordable housing and economic security, so that millions of manufactured home community residents in Florida can not only recover from climate disasters, but thrive.

Center affected communities in solutions around climate disasters

Decision makers need to directly engage with manufactured homeowners and tenants — prioritizing low-income families, seniors, and people of color — in all decisions regarding disaster preparation, recovery, and mitigation. Those conversations require genuine and accessible engagement and transparency. **Lawmakers and community owners need to:**

- Establish resident advisory committees that have leverage and a meaningful role in designing community hurricane preparedness plans and community owner obligations before, during, and after hurricanes
- Engage residents and advocacy groups in public policy and program conversations, especially when developing, implementing, and evaluating guidelines and eligibility criteria for disaster recovery assistance programs



Residents of Galway Bay Mobile Home Park in Marathon, FL stand together in the face of severe hurricane damage and abusive owner practices.

credit: Photographer name

Ensure affordable homes and healthy communities

State and local lawmakers need to protect families and seniors in manufactured home communities, as well as other vulnerable communities, from predatory corporate owners, unreasonable rent hikes, and unhealthy living conditions. Lawmakers need to:

- Adopt protections against unjustified rent increases, including a moratorium on rent increases after hurricanes/disasters, and a prohibition on charging rent when a home or community is uninhabitable
- Pass and ensure meaningful implementation of a comprehensive Tenant Bill of Rights, including protections against eviction, retaliation, and discrimination and assurances of healthy living conditions

- Remove the onerous State barriers to local rent protection measures and allow local governments to adopt rent laws that will serve families, seniors, and communities
- Provide a meaningful path for nonprofit housing organizations, resident-owned cooperatives, and local governments to purchase manufactured home communities and preserve them as affordable, healthy communities
- Adopt zoning codes that protect manufactured home communities from redevelopment and residents from displacement

Protect resident well-being and ensure just recovery after climate disasters

Government agencies need to reform the disaster recovery programs they administer to adequately repair damaged homes and communities, return residents to their homes or new homes of choice, and protect the well-being and health of families and seniors. **Lawmakers and government agencies need to:**

- Reform the Federal Flood Insurance Program to ensure affordable, accessible insurance for all, including manufactured home residents in flood-prone areas
- Provide manufactured home residents the option to repair their homes as quickly as possible and seek reimbursement, or otherwise receive assistance through state recovery programs
- Invest in accessible, clear communications about disaster recovery programs
 - Ensure program eligibility requirements, terms, application processes, and materials are clear and consistent
 - Make program materials available in languages spoken by residents, including Spanish and Creole

“FEMA should consider people that are elderly, that are not computer-literate... Since this is a retirement place, there are a lot of retired people who need help.”
— Hens

- Ensure all residents have the opportunity to apply for recovery programs — for example, ensure access to internet and online devices in disaster areas and make home visits to support residents who have limited digital literacy
- Train recovery program staff about manufactured homes and community settings
 - Establish standard training for inspectors to meet qualifications for consistency in inspections
 - Train inspectors on manufactured homes and how to assess for damage

“Inspectors need to know what a mobile home is. The person who inspected mine never checked underneath to see if there were leaks, never checked to see if [there was] damage to the roof, to the carport, if the roof was pushed crooked.”
— Midge

- Provide reasonable avenues for residents to prove ownership when original title is not available to them, as is often the case for manufactured homeowners
- Assign designated and reliable case workers who follow residents through assistance receipt to increase consistency and transparency

Build resilient communities in Florida and beyond

Families and seniors need government officials and community owners to invest in and protect climate-

resilient homes and communities. **Local and state lawmakers and government agencies, as well as community owners, need to:**

- Develop disaster and post-disaster plans for manufactured home communities, with attention to:
 - Quick and efficient evacuation and sheltering of residents, especially seniors
 - Timely integration of residents back into communities to assess their homes and belongings
 - Provision of power, water, and other utilities
 - Access to medical and mental health care
- Provide education about climate disaster preparedness and how to prepare for the recovery process, including documentation needed for assistance programs
- Upgrade, update, or replace manufactured homes to ensure safety and resiliency and offer assistance through grant-based programs for residents to update homes

“We would love to see state money to help homeowners strengthen homes, ideally grant programs to replace windows and doors, to make structures sturdy, or low-interest programs to replace homes.”

— Florida Manufactured Housing Association

- Improve community infrastructure, including drainage systems, to ensure durability in disasters and energy efficiency
- Hold community owners accountable for ensuring that communities are physically prepared for disasters and are reducing environmental impacts

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Appendices Overview

The appendices include material that supported our data collection efforts for the duration of the research project, between January 2019 and July 2019. Human Impact Partners developed drafts of tools and finalized them with feedback from MHAction staff and a Florida-based manufactured home community resident organizing with MHAction.

Appendix A: Glossary of Terms

Some terminology around the landscape of manufactured housing may be new for some readers — therefore, we outline key terms and definitions in table format for reference.

Appendix B: Project Handout

We provided stakeholders with this description during data collection methods to inform them about research goals, timeline, and ways to get in contact with us.

Appendix C: Strengths and Limitations of Research Methods

We used five different research methods to collect data. We list the specific methods we used and describe the strengths and limitations of each method. The remaining sections in the Appendix present the specific tools (and/or descriptions of) that we used.

Appendix D: Secondary Datasets

We examined two datasets: the Florida Department of Health's Mobile Home Parks Program and OpenFema's Individual Assistance Housing Registrants Large Disasters V1.

Appendix E: Key Informant Interviews

We conducted 14 interviews with four types of key informants: legal and advocacy groups, manufactured home residents, industry associations, and research experts.

Appendix F: Resident Focus Groups

We facilitated two resident focus groups — one in Daytona Beach, and one in the Florida Keys, with 19 residents total.

Appendix G: Resident Survey

We developed a 16-item self-administered survey tool (paper and electronic, in English and Spanish), which MHAction distributed to networks throughout Florida. Fifty-one manufactured home community residents completed the survey.

Appendix A:

Glossary of Terms

Term	Definition
Manufactured home	<p>A factory-built home that is transported to private land for residence. Manufactured homes are sometimes known as mobile homes — residents, researchers, and government agencies often use this term. Technically, the term “mobile home” applies to homes built before 1976, and “manufactured home” applies to homes built in 1976 and later. In this report, we refer to both mobile and manufactured homes as manufactured homes.</p> <p>Residents can either own the home, or rent/lease it from the homeowner. Additionally, residents can either own the land beneath their home, or rent/lease it from the property owner.</p>
Manufactured home community	<p>A type of residential setting where multiple units of manufactured homes are in proximity to one another. Sometimes, these communities are referred to as “mobile home parks.” Florida Health defines a park as a setting with 5+ units.</p> <p>These communities sit on land that is owned by a corporation, resident-owned cooperative, non-profit organization, or public ownership. The community owner rents individual lots to the manufactured home owners or renters who live in the community.</p>
Land-leased community	<p>A type of manufactured home community setting where a community owner (typically the landlord) leases the land in “lots” to residents who either own their manufactured home unit, or rent the unit from the community owner.</p>
Community owner	<p>Landlords who lease the land to manufactured home community residents. Community owners can be mom-and-pop owners who manage one or a few communities, or large corporations who manage multiple communities. Communities can be managed differently, sometimes directly by owners, or by on-site staff hired by owners.</p>
Lot rent	<p>The fee that residents in manufactured home communities pay to community owners every month to lease the land their home sits on. The specific parcel of land their home sits on is called a “lot.” Sometimes the fee includes costs of utilities such as electricity, water, and sewage and other living expenses.</p>
Lot requirement	<p>Rules that residents are required to follow, including guidelines for the appearance of their homes, and addition of carports where they park their cars under.</p>
Climate disaster	<p>A broad term to describe disastrous weather events resulting from climate change. In this report, residents reported on experiences with Hurricanes Irma (2017) and Michael (2018).</p>

Appendix B: Project Handout

Healthy Homes, Healthy Communities: How Corporate Community Owners and Government Agencies Can Invest in Community Wellness Before, During, and After Climate Disasters

About the Project

Human Impact Partners (HIP) and Manufactured Housing Action (MHAction) are collaborating on a research project to examine policies and programs to fully repair and replace manufactured homes in Florida that are damaged by hurricanes. In particular, the project will analyze and identify solutions to the health impacts of climate disasters on manufactured home residents in land-lease communities, where residents own their homes but rent the land from a community owner and are susceptible to exploitation by predatory corporate investors.

Currently, in Florida, there are 800,000 manufactured home households, 200,000 of which applied for emergency assistance after Hurricane Irma. But many have been rejected for emergency assistance. Now over a year after Irma, these homeowners are living in or next to damaged homes, being exposed to direct and indirect health threats, and many do not have permanent housing. Meanwhile, the corporate owners of their communities have failed to protect residents' health and are profiting from their housing insecurity. With climate change bringing increasingly dramatic weather conditions, hurricanes and flooding will increase and the impacts on manufactured home communities will worsen. Manufactured home residents are organizing their neighbors and advocating for disaster recovery programs that meet their needs and the needs of tenants and low-income communities with whom they have a shared fate.

Our goal is to develop a short report to target elected officials and public agencies in the context of disaster recovery, flood insurance, and other post-hurricane related decision making. The report will show how hurricane damage to manufactured homes impacts the physical and mental health of people and communities, and how health impacts are worsened by the economic and housing insecurity of residents in corporate-owned communities. Ultimately, we want to demonstrate how these impacts can be addressed or mitigated by State and federal programs that effectively repair or replace manufactured homes and enhance the disaster preparedness of manufactured home communities. Additionally, we highlight the need for public investment in long-term and sustained solutions to create climate-resilient communities.

Research Scope

With guidance from MHAction staff and leaders, the research project will include literature review, quantitative methods (e.g., surveys and existing data), and qualitative methods (e.g., interviews, focus groups) to answer the following key research questions:

1. What is the scale of, and who lives in, manufactured home communities, particularly in land-lease communities, in Florida?
2. What are the health and social vulnerabilities associated with living in manufactured home communities? What are the health and social assets?
3. What are the direct and indirect health impacts of recent hurricanes on residents of manufactured home communities?
4. How are health impacts prolonged or exacerbated as a result of delayed (or lack of) intervention from government agencies, manufactured home community owners, and insurance companies?
5. What is the landscape of federal and state policy to support manufactured home residents after hurricanes? What about support from manufactured home community owners?
6. How could disaster recovery programs and policies meaningfully contribute to improved health outcomes for residents of manufactured homes?

Timeline

In collaboration with MHAction, HIP will design and carry out research activities between February and April 2019, and will aim to have a final report ready to share by June 2019. MHAction will lead report dissemination and communications efforts, sharing findings and recommendations with allies, stakeholders, and decision makers thereafter. The report will be available on HIP's website, at www.humanimpact.org

About the partnership

Human Impact Partners (HIP) is a national non-profit organization whose mission is to transform the policies and places people need to live healthy lives by increasing the consideration of health and equity in decision making. Through research and advocacy, we help organizations who work with low-income communities and communities of color understand the effects of projects and policies on health. And we help them use this information to take action. We focus on the issues of: criminal justice, economic security, immigration, housing, and land use and transportation.

Manufactured Housing Action (MHAction) is a national movement of manufactured home residents who work to protect the affordability and quality of their communities through local and state campaigns. MHAction recruits, develops, and coaches manufactured housing community leaders who mobilize other homeowners and residents to work on public policy campaigns to protect residents, engage corporate landlords, and weigh in on a variety of social, racial, and economic justice campaigns.

Appendix C: Strengths and Limitations of Research Methods

Research Method	Strengths	Limitations
Literature review	The literature review was comprehensive in exploring the various assets and vulnerabilities of manufactured home community residents on a general scale	Little research has been published on the health of manufactured home community residents in the context of hurricanes and exploitative community owner practices
Secondary datasets	<p>The dataset from Florida Health was updated recently and provided a geographic landscape of manufactured home communities. We conducted univariate statistical analysis in Microsoft Excel.</p> <p>The dataset from OpenFEMA was large and comprehensive in presenting data on different types of disaster recovery assistance applicants applied for. We conducted bivariate inferential statistical analysis in STATA.</p>	<p>The dataset from Florida Health did not collect and/or provide variables of interest in an aggregate way for all communities, therefore we were unable to perform bivariate and inferential analysis.</p> <p>The OpenFEMA dataset was limited to assistance provided after Hurricane Irma only, and did not differentiate between manufactured home residents who lived in standalone vs. community settings</p>
Key informant interviews	Key informants filled in gaps from the literature and secondary datasets and provided guidance and insights for new resources.	Due to the nature of qualitative data, findings are highly specific to context and may not be generalizable to other contexts.
Resident focus groups	Residents' stories and experiences with hurricanes and community owners filled in gaps in knowledge around impacts of these threats to their health and well-being.	Due to the nature of qualitative data, findings are highly specific to context and may not be generalizable to other contexts.
Resident survey	The survey items consisted of various topics impacting manufactured home residents that have not been addressed in other forms of quantitative research to date.	Because of the small sample size, we were unable to perform bivariate and inferential statistical analysis. Additionally, findings are likely not broadly generalizable due to the sample size and eligibility criteria.

Appendix D:

Datasets

Florida Department of Health Mobile Home Parks Program - Mobile Home/RV Park Listing

Publicly Accessible Dataset, Downloaded to Excel on March 26 2019

Florida's Public Health Department, Florida Health, carries out routine inspections of manufactured home community settings and similar living spaces to ensure minimal injury and risk, with particular attention to sewage disposal, drinking water safety, and solid waste collection and disposal.

This dataset, Mobile Home/RV Park Listing, lists all of the registered manufactured home and RV communities in Florida that have at least five housing units, and classifies them as mobile home parks, recreational vehicle (RV) parks, recreational camps, lodging parks, temporary events. The list also provides each community's address and owner information, type of water and wastewater system, number of occupied manufactured home and RV units, and the total number of units in the community. When communities have a mix of manufactured homes and RVs, they are classified by whichever housing type is in the majority. We downloaded the dataset in Excel to evaluate number of mobile home parks, as well as geographic locations.

Out of 5,456 total parks, we narrowed results to 3,843 mobile home parks to reflect scale of manufactured home communities in Florida. About 28% (n=1061) of manufactured home communities are located in one of three counties: Hillsborough (n=431, 11.22%), Polk (n=394, 10.25%), Pinellas (n=236, n=6.14%). The following cities have the greatest population of manufactured home communities: Tampa (n=131, 3.41%) in Hillsborough County, Pensacola (n=162, 4.22%) in Escambia County, Lakeland (n=163, 4.24%) in Polk County. Most community owners are based in Florida (n=3,046, 79%), but others are located out-of-state, such as in New York (n=102, 3%), Michigan (n=149, 4%).

Results of inspection data are only available on a community-by-community basis, not as an aggregate. More information can be found on the [Florida Department of Health's Mobile Home Parks Program website](#).

OpenFEMA Dataset: Individual Assistance Housing Registrants Large Disasters - V1

Publicly Accessible Dataset, Downloaded to Excel on March 29 2019

This dataset provides information on how many homeowners, renters, and business owners applied for FEMA individual assistance after federally declared disasters. The data come from FEMA's National Emergency Management Information System (NEMIS) which records all of the cases FEMA has processed since 1998. After downloading the data into Excel, we filtered results to "Hurricane Irma" (data for Hurricane Michael was not available) and "Florida." We cleaned and coded data in STATA and performed chi square tests with $p < 0.05$ as an indicator of statistical significance.

Residents of mobile/manufactured home (MH) units made up 7% or $n=9,452$ of the dataset. Most applicants resided in houses/duplexes (56%), and apartments (23%). We carried out univariate descriptive analysis to generally understand experiences of applicants living in mobile or manufactured home units. We also carried out bivariate inferential analysis to understand how experiences differed by housing type. Highlights from the analysis are as follows:

- Manufactured home residents who applied for assistance from FEMA were largely low-income, they reported about 2 people living in their unit on average, and most reported their home to be their primary residence.
- Manufactured home residents were more likely to own vs. rent their home, but less likely to have homeowners insurance and flood insurance than residents of other types of homes.
- Manufactured home residents reported greater damage to their home as a result of the hurricane. This included: required repair for homes to be habitable, destroyed/permanently uninhabitable homes, and greater flood damage. FEMA also documented greater real property damage and verified greater loss for manufactured home residents.
- A greater proportion of manufactured home residents were eligible for assistance to repair (and received a greater amount for repair) and for assistance to replace homes. They were also more likely to be eligible for other needs assistance (versus residents of other home types).
- Fewer manufactured home residents were eligible for temporary shelter assistance.

Manufactured home residents suffered greater damage to their homes but didn't appear to receive disproportionately less assistance from FEMA vs. residents of other home types. In general, FEMA assistance is minimal to start with. FEMA inspected 34% of homes. About 13% of homes required repairs but 1% were eligible for assistance to address repairs. Funds were allocated through 01/2019.

More information can be found on the [OpenFEMA Dataset website](#).

Appendix E:

Key Informant Interviews

We spoke to most key informants in one-on-one interviews and on a statewide call with multiple residents. Calls lasted between 30 minutes and 1.5 hours each. We transcribed hand-written notes and followed up with stakeholders to verify quotes and statements.

Key Informant	Number of People We Spoke With
Legal / Housing Advocates	4
Residents	7
Research Experts	1
Industry Associations	2

We reached out to government disaster recovery programs including FEMA and Florida Rebuild to schedule interviews and did not receive a response to our request to interview.

Legal/Advocacy Groups (individual interviews, n=4):

1. Can you tell us about the work that you do, particularly post-hurricanes, and in supporting residents of manufactured homes and communities?
2. What types/examples of damage did residents in manufactured home communities experience after the recent hurricanes? What impact did this have on their health?
3. What recovery programs (e.g. FEMA, Rebuild) were available to residents and how effective do you think these were? What were the health effects of delayed or ineffective intervention on residents?
4. What are some factors that are preventing residents from full recovery? And more generally, what factors make it hard for residents in these communities from living optimally?

Manufactured Home Community Residents (statewide call, n=4 participants):

1. Let's understand what life was like before hurricane Irma. Was your community affordable? Did you have a sense of stability living there? What do you enjoy most, and what do you find difficult or stressful?
2. How did your living situation change? (e.g., affordability, stability, quality of your home)
3. What about your social life? (e.g. having neighbors move away, and not doing things you used to do for fun)
4. Anything else that particularly stressed you out?
5. How did these type of changes affect your health and well-being? (e.g. your level of stress, loneliness, skipping medications, not going to doctor's appointments)
6. What has been your experience in applying for state and/or federal programs to repair or replace your home if it was damaged?

Manufactured Home Community Residents (individual interviews, n=3):

1. What's it like to live in your manufactured home community?
 - a. How long have you lived there? Why did you decide to move there?
 - b. What do you enjoy about it?
 - c. Is there anything you don't enjoy? What is that?
2. What happened to your home and your community after the hurricane(s)?
 - a. Describe the damage that happened to your home and community
 - b. Where did you go - what was your living situation like?
 - c. How did this affect your health and well-being? - Some examples include impacts on your mental health and stress, coping with stress, and your physical health
3. Did you apply for assistance through a state or federal disaster recovery program?
 - a. What type of assistance did you apply for and from whom?
 - b. What was the application process like? What made it easy or hard?
 - c. Were you satisfied with what you received? Why or why not?
 - d. Did you receive any assistance from the community owner?
 - e. What effect did all of this have on your health and well-being? - Some examples include impacts on your mental health and stress, coping with stress, and your physical health
4. What are your suggestions for improving these programs for residents like yourself?
 - a. What would have made the application process better?
 - b. How should these programs serve residents of manufactured home (communities) better?
 - c. What are some key issues of concern for residents in land-leased communities? (e.g. culture of transience, high rent/lot fees, inability to accumulate wealth).
 - d. How are these being addressed? What will these communities and these challenges look like in the future?

Research experts (individual interview, n=1)

1. Can you tell us about manufactured home communities in Florida?
 - a. How many Floridians live in manufactured home communities? Where and how are these communities clustered? How many are land-leased?
 - b. What are the health and social assets of residents in these communities?
 - c. What are some key issues of concern for residents in land-leased communities? (e.g. culture of transience, high rent/lot fees, inability to accumulate wealth).sed?
 - d. How are these being addressed? What will these communities and these challenges look like in the future?
2. How are residents of manufactured home communities vulnerable to housing quality, and housing insecurity, including instability and lack of affordability in Florida?
 - a. What aspects of the political, economic, social, and geographic environment in Florida make these housing vulnerabilities a reality?
 - b. What effect does all this have on residents, including their health and quality of life?
3. We understand that you're working with disaster researchers in Texas, looking at the housing stock of manufactured home communities before/after a natural disaster.
 - a. Can you tell us more about this project?
 - b. What have you learned?
 - c. Do you perceive similar trends in Florida?
4. Do you have any guidance for our research project, including other people we should talk to help us answer our key research questions?

Industry Associations (individual interviews, n=2):

1. Can you describe your organization (FMHA) and its role in Florida? What kind of work do you do?
2. Can you tell me about the manufactured home community/parks that are affiliated with the association?
 - a. How many communities or parks (and owners) does your association represent? What geographies have strongest representation?
 - b. What's the total population of residents living in the communities you represent? Who lives there? (demographics)?
 - c. What feedback do you hear from the community owners and residents about their experiences living in these communities?
3. How did the hurricane impact communities, community owners and residents?
 - a. How has the association worked with community owners to prepare for hurricanes in advance? With residents in advance?
 - b. What are challenges and damages you hear about from community owners after hurricanes? How do you help deal with these, or advocate to address these?
 - c. What are challenges and damages you hear about from residents after hurricanes? How do you help deal with these, or advocate to address these?
 - d. How is the association affected directly by these hurricanes?
4. How effective do you think government disaster recovery programs are for owners and residents?
 - a. What are ways that FEMA and state programs like Rebuild have addressed the needs of community owners and communities after hurricanes?
 - b. Do you have a sense of how successful these programs have been in helping manufactured home communities?
 - c. What are the gaps in coverage that you hear about from owners? From residents?

Appendix F:

Resident Focus Groups

Focus Group Questions

Date/time of focus group: _____

Focus group site: _____

Name of facilitator: _____

Name of notetaker: _____

How many residents are participating in this focus group?

Introduction

To begin, let's go around and introduce ourselves. Please share your name, where you live.

Questions

Remember the following:

- The order of questions and probes are suggested.
- Keep in mind group dynamics and reactions to questions and responses.
- Begin the audio recorder before asking the first question.

1. What's it like to live in your manufactured home community? (15 minutes)
 - a. How long have you lived there? Why did you decide to move there?
 - b. What do you enjoy about it? Is there anything you don't enjoy? What is that?
 - i. Examples include the people, the location, community manager interactions, affordability
2. What happened to your home and your community after the hurricane(s)? (15 minutes)
 - a. Describe the damage that happened to your home and community
 - b. Did you continue living here - what was your living situation like?
 - c. How did this affect your health and well-being?
 - i. Examples include the people, the location, community manager interactions, affordability
3. What was your experience applying for assistance through a state or federal disaster recovery program? (15 minutes)
 - a. What type of assistance did you apply for and from whom?
 - b. What was the application process like? What made it easy/challenging/stressful?
 - c. Were you satisfied with what you received? Why or why not?
 - d. Did you receive any assistance from the community owner?
 - e. How did these experiences affect your health and well-being?
 - i. Some examples include impacts on your mental health and stress, coping with stress, and your physical health like headaches, respiratory problems

4. What are your suggestions for improving these programs for residents like yourself? (15 minutes)
 - a. What would have made the application process better?
 - b. How should these programs serve residents of manufactured home (communities) better?
 - c. How could those improvements improve your sense of health and well-being?
 - i. Some examples include impacts on your mental health and stress, coping with stress, and your physical health like headaches, respiratory problems

Closing out focus group (5 minutes)

- This concludes our focus group. Is there anything else you would like to share with us?
- Summarize what happens next (from above).
- Thank you very much for your time – we know you are incredibly busy. Please feel free to reach out to us if anything else comes to mind that you would like to share.
- Provide incentives, asking participants to sign off on the last column of the sign-in sheet indicating that they received the incentive.

Appendix G: Resident Survey

Healthy Homes, Healthy Communities: How Corporate Community Owners and Government Agencies Can Invest in Community Wellness Before, During and After Climate Disasters

Human Impact Partners and Manufactured Housing Action are collaborating on a research project to tell our government officials how hurricanes and the recovery programs impact the health and well-being of families and seniors who live in manufactured home communities. This report will help advance our efforts to strengthen the recovery programs and build a community-led movement for housing and climate justice!

Please fill out the survey below to ensure the report captures how hurricane damage, rent increases, and the recovery programs have impacted your health and well-being. The survey will only take 5 minutes to complete. Your responses are confidential. Please hit "DONE" at the bottom of the page when you have finished the survey.

Thank you so much for taking the time to complete this survey!

Please continue with the survey if:

- You are 18 years or older
 - You are the only person from your household completing this survey
 - Your manufactured home was your primary place of residence during a hurricane in the last two years
 - You lived in a manufactured home community (sometimes called a mobile home park, where you rent the land from a community owner) during the recent hurricane
-
-

1. Who owns the land in your community?
 - a. A large business or corporation
 - b. A family or individual community owner
 - c. A resident-owned cooperative
 - d. I don't know
2. What is the name of the manufactured/mobile home community you live in? _____
3. What is the zip code of your manufactured home community? _____
4. Do you live in your manufactured home year-round or part of the year?
 - a. I live in my manufactured home year-round and it is my only residence
 - b. I live in my manufactured home part of the year and have another residence that I live in part of the year
 - c. Other. Please explain: _____

5. Have rent increases stressed you or negatively impacted you?

- a. Yes, I felt more stressed about rent increases before the hurricane
 - b. Yes, I felt more stressed about rent increases after the hurricane
 - c. Yes, I felt more stressed about rent increases both before and after the hurricane
 - d. No I have not felt stressed about rent increases
6. Were you satisfied with the support or assistance from your community owner before, during or after the hurricane?
- a. I was satisfied with the support/assistance of my community owner
 - b. I was somewhat satisfied with the support/assistance of my community owner
 - c. I was somewhat dissatisfied with the support/assistance of my community owner
 - d. I was dissatisfied with the support/assistance of my community owner
 - e. My community owner did not provide any support/assistance
7. Did you have insurance on your home at the time of one of the recent hurricanes?
- a. Yes
 - b. No. If no, why not? _____

8. After one of the recent hurricanes, did you experience any of the following? (Select any/all that apply to you)
- Mold growing inside my home
 - Water leaking into my home
 - Part of the inside of my home exposed to the outside (heat, rain, wind, etc.)
 - An injury or a fall as a result of hurricane damage
 - No access to utilities like water, gas, electricity
 - No access to basic needs like food, water, clothing, shelter
 - Please specify the damage to your home: _____

9. Did you have to sell or abandon your home because you could not afford to repair it?
- a. No
 - b. Yes. If yes, did you sell your home OR give your home to the community owner? _____
10. How easy or convenient was it to seek assistance from the following program?

Program	Easy	Somewhat easy	Somewhat Challenging	Challenging	I was not aware assistance was available through this program	I did not seek assistance from this program	I was not eligible for assistance from this program
10a. FEMA							
10B. Small Business Administration							
10c. Florida Rebuild							
10d. Insurance							

Please provide any comments here (optional): _____

11. How stressful was it to seek assistance from the following program?

Program	Easy	Somewhat easy	Somewhat Challenging	Challenging	I was not aware assistance was available through this program	I did not seek assistance from this program	I was not eligible for assistance from this program
10a. FEMA							
10B. Small Business Administration							
10c. Florida Rebuild							
10d. Insurance							

Please provide any comments here (optional): _____

12. How satisfied were you with what you received from the following program?

Program	Easy	Somewhat easy	Somewhat Challenging	Challenging	I was not aware assistance was available through this program	I did not seek assistance from this program	I was not eligible for assistance from this program
10a. FEMA							
10B. Small Business Administration							
10c. Florida Rebuild							
10d. Insurance							

Please provide any comments here (optional): _____

13. How would you describe your health, from before the hurricane, through today?

	Excellent health	Very good health	Good health	Fair health	Poor health
13a. Before the hurricane					
13B. Immediately after the hurricane					
13c. Months after the hurricane					
13d. Today					

What specifically changed about your health? _____

14. Did you develop for the first time OR experience worsening of any of the following health conditions after the hurricane? (Select any/all that you experienced)
- Heart problems (chest pain, heart disease, heart attack, high cholesterol)
 - High blood pressure
 - Respiratory problems (asthma, chronic cough, bronchitis, COPD, etc.)
 - Diabetes
 - Stomach and digestive problems (heartburn, ulcers, constipation, diarrhea)
 - Aches and pain (headaches, fatigue, general aches and pain)
 - Stress-related problems (skin or hair problems, changes in appetite, weight loss or weight gain, trouble sleeping including insomnia)
 - Drug or alcohol use, including smoking
 - Depression and/or anxiety symptoms

15. Do you continue to experience worsening of any of the following health conditions today? (Select any/all that you experienced)
- Heart problems (chest pain, heart disease, heart attack, high cholesterol)
 - High blood pressure
 - Respiratory problems (asthma, chronic cough, bronchitis, COPD, etc.)
 - Diabetes
 - Stomach and digestive problems (heartburn, ulcers, constipation, diarrhea)
 - Aches and pain (headaches, fatigue, general aches and pain)
 - Stress-related problems (skin or hair problems, changes in appetite, weight loss or weight gain, trouble sleeping including insomnia)
 - Drug or alcohol use, including smoking
 - Depression and/or anxiety symptoms

16. What is your age?
- 18 to 24 years older
 - 25 to 34 years older
 - 35 to 44 years older
 - 45 to 54 years older
 - 55 to 64 years older
 - 65 years old +

17. MHAAction is a national grassroots organization of manufactured homeowners and renters who are standing up to abusive community owners, fighting for stronger housing and climate policies, and building a movement for justice! Will you join our movement? Enter your name and email here to sign up for MHAAction's list — your survey responses will remain confidential.

Name: _____

Email address: _____

Questions about MHAAction? Email info@mhaction.org. Thanks for taking the survey!

Geographical spread of residents who completed the survey (n=51)

