Health as resilience capacity in New Orleans: The critical role of community-based collaborations

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Overview

Because health is a human right, every effort to improve the health of the population of metropolitan New Orleans must be pursued.[1] A healthy population also will add to the region's capacity for resilience. In 2005, when Hurricane Katrina and the failure of the federal levees devastated the region, Louisiana was 49th out of 50 states in national health rankings.[2] In 2024, Louisiana was ranked as the unhealthiest state in the nation.[3]

The health profile of the residents of the New Orleans metropolitan area is usually somewhere in the middle compared to other parishes in Louisiana. In 2005, for example, men in Orleans Parish lived 65.9 years on average, while life expectancy among women in was 74.6 years. Life expectancy among men in Louisiana in 2005 was 70.8 years, while the average life expectancy of women in Louisiana was 76.9 years.[4]

Prior to the COVID-19 pandemic in 2020–2023, life expectancy was increasing. Life expectancy in Louisiana was 76.1 years in 2019 and 77 years in Orleans Parish, though based on the most recent data, life expectancy decreased to 73 years.[5] The consequences of the COVID-19 pandemic notwithstanding, some health outcomes have improved over time for residents in the New Orleans metropolitan region.[6]

Overall mortality rates, for example, have decreased, as have infant mortality rates.[7] Yet there is variability within the region. In Orleans Parish, which includes the city of New Orleans, 12.4 percent of babies are born with

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low birthweight.[8] Yet, fewer babies are born with low birthweights in Jefferson Parish, south and west of the city, at 10.1 percent, and in St. Tammany Parish, north of the city on the shores of Lake Pontchartrain, at 8.5 percent.[9]

Deaths from heart disease, cancer, and HIV have decreased over time in metropolitan New Orleans in alignment with national trends.[10] In 2006, there were 193 new cases of HIV in New Orleans metropolitan area.[11] Yet, there were 125 new HIV diagnoses in Orleans Parish in 2022.[12] Opioid overdose deaths and deaths by suicide have also increased over time among the residents of the region, similar to U.S. trends overall.[13] Rates of diabetes, obesity, and frequent mental distress have also increased over time in New Orleans.[14]

Though there have been some improvements to the health of the regional population in the years since Hurricane Katrina, addressing the root causes of the health profile of metropolitan New Orleans is key. The social determinants of health are defined as "the conditions in which people are born, grow, live, work and age, and people's access to power, money, and resources," according to the World Health Organization.[15] To improve the health of the population in the New Orleans metropolitan area and to increase its residents' capacity for resilience, improving and closing inequities in the social determinants of health in the region is required.

This report will frame health as the capacity for resilience, by first describing the health impacts of negative shocks on the residents of metropolitan New Orleans, then examining the racial inequities in health and the social determinants of health among the residents of the region. Then, building on the collaborative approaches developed before, but especially after, Hurricane Katrina to increase residents' capacity for resilience and improve the social determinants of health, this report will close with a set of broad recommendations. Among them:

- Continue to create formal positions and efforts within public health institutions dedicated to building health as a capacity for resilience
- Continue to identify and recruit community-based organizations currently conducting work to overcome negative social determinants of health
- Prioritize preparation for negative shocks to the region for low-income residents, those with disabilities, the elderly, and people with chronic conditions

Policymakers and community leaders alike can advocate for support of these and other efforts with sustainable funding to establish community-driven and culturally rooted efforts to create stronger health-resilience capacities that can be a model for the rest of the United States.

Health as the capacity for resilience

The concept of resilience capacity has been applied to health care systems since the aftermath of Hurricane Katrina in 2005. But it is imperative that public health entities in the New Orleans metropolitan region be supported to continue to build resilience capacity by developing key infrastructure and community-based approaches to absorb, minimize, and adapt to negative shocks such hurricanes and other natural disasters.

A framework for promoting wellness via community health resilience centers is "inseparable" from building resilience capacity, and includes "helping people face everyday challenges, as well as extreme events," said Katherine Wulff, Darrin Donato, and Nicole Lurie at the U.S. Department of Health and Human Services in 2024.[16] Because negative shocks exacerbate existing chronic conditions, through stress and the reduced ability to access medications or health care,[17] a population with lower rates of diabetes, high blood pressure, respiratory conditions, cancers, or other

chronic conditions will be better able to respond and adapt to negative shocks.

In sum, improving the health of residents of the New Orleans metropolitan region overall, as well as reducing racial inequities in health, should be viewed as a critical part of building the overall resilience capacity of the New Orleans metropolitan region and among its residents. Let's now examine those health impacts from negative shocks.

The health impacts of negative shocks

Metropolitan New Orleans regularly experiences major negative shocks, such as hurricanes, as well as routine negative shocks, including extreme heat and street flooding. Hurricanes negatively impact the health of people in and around their paths, both directly and indirectly. Specifically, hurricanes can cause negative health outcomes among residents and exacerbate previous health conditions.[18] Hurricanes cause mortalities and injuries during the event and for months or years afterward.

Exposure to toxins and infectious diseases from floodwaters and the ongoing repair of infrastructure during recoveries from disasters also are major causes of subsequently negative health outcomes for people.[19] Stress is a major contributor to poor physical and mental health outcomes after hurricanes. Studies have shown the impact of hurricanes on cardiovascular-disease-related outcomes, with increases in cardiovascular-disease-related deaths and hospitalizations immediately following hurricanes and for months and years after landfall.[20] Studies also have shown that hurricanes have negative impacts on the mental health of those people impacted both immediately after the storm and for years afterward.[21]

In addition to more frequent and intense hurricanes, there are more frequent and extreme heat events with public health impacts.[22] Extreme heat events result in increases in heat-related deaths.[23] Extreme heat events also are associated with "cardiovascular events, respiratory conditions, kidney disease, adverse pregnancy outcomes, increased anxiety and depression, increased suicidality, and aggressive behavior and violence," observe environment and public health professors Michelle Bell, Antonio Gasparrini, and Georges C. Benjamin.[24]

The New Orleans metropolitan region frequently experiences some events that could be framed as regular negative shocks. Though flooding may be associated with major weather events such as hurricanes for those people who live outside of the New Orleans metropolitan region, street flooding due to heavy rainstorms is a regular occurrence for New Orleans Parish residents.[25] The economic impacts of street flooding such as damage to vehicles or homes can be stressful. Loss of electricity during these heavy rain events may negatively impact the health of residents, particularly during extreme heat.

Similarly, residents who walk or bike during flood events may be exposed to unknown substances in floodwater. Drownings and unintentional injuries due to floodwaters[26] also demonstrate the impacts of this type of regular negative shock. Additionally, flooding has both acute and long-term mental health consequences such as post-traumatic stress disorder and anxiety.[27]

It should be noted that community violence also might be considered an acute negative shock that occurs more frequently across neighborhoods in the New Orleans metropolitan area than in other locales in the United States. Though crime rates are going down across the country and in the New Orleans metropolitan area too, community violence remains an exposure that causes negative health outcomes. Studies have shown that exposure to community violence among youth is associated with mental health outcomes such as psychological distress, post-traumatic stress disorder, anxiety,[28] and negative physical health outcomes, including asthma, elevated blood pressure, and sleep problems.[29]

Racial health inequities in the New Orleans metropolitan region

Negative shocks such as hurricanes can disproportionately affect the health of Black and Hispanic residents.[30] Racial health inequities are at least partly due to the tool that systemic racism takes on the body.[31] And like the rest of the country, metropolitan New Orleans is plagued by racial and economic health inequities. A report by the Joint Center for Political and Economic Studies found a 25-year gap in life expectancy across neighborhoods in Orleans Parish from 2000 to 2009.[32] The report documents that health inequities are a reflection of persistent racial segregation in the New Orleans metropolitan area.

The New Orleans Health Department released data in their 2024 Health Disparity Report that showed that life expectancy in the predominately White neighborhood of Lakeview, north of downtown New Orleans on the south shore of Lake Pontchartrain, was 88 years. Life expectancy was lowest in the predominately Black neighborhood of Central City at 62 years.[33] This 24-year gap in life expectancy aligns with other increases in health inequities in New Orleans.

Among White New Orleanians, the infant mortality rate in 2005 was 5.2 deaths per l,000 live births.[34] Among Black New Orleanians in 2005, the infant mortality rate was 13 deaths per 1,000 live births.[35] Though the infant mortality rate in the New Orleans metropolitan region has declined over time,[36] the racial disparity in infant mortality rates has increased. In 2005, the Black-White ratio in infant mortality was 2.5 in New Orleans,[37] but looking across the 3-year average from 2017 to 2019, the Black-White ratio in infant mortality had increased to 3.1.[38]

Like the United States as a whole, racism is embedded in the systems, institutions, and structures of New Orleans, resulting in entrenched social and economic inequities across racial groups.[39] The New Orleans Health Department, the City Council, health care systems, higher education institutions, and community-based organizations have launched efforts to address health inequities in New Orleans. Yet the health impacts of negative shocks on residents can only be reduced by addressing the social determinants of health.

The ability for individuals and families to avoid or recover from negative shocks is often a function of wealth. Families and communities with savings or wealth are more likely to be able to evacuate before a storm, remain evacuated for longer or shelter-in-place comfortably, afford to make repairs, or ultimately relocate temporarily or permanently.[40] Racial inequities in wealth have implications for racial inequities in the health impacts of hurricanes. In metropolitan New Orleans, the median net worth among non-Hispanic White people is 10 times higher than among non-Hispanic Black people.[41] The median net worth of Hispanic people in the New Orleans metro is only one-sixth of the median net worth of non-Hispanic White people.[42]

The social determinants of health are non-medical factors defined by the Centers for Disease Control and Prevention and the World Health Organization as “the conditions in which we are born, develop, live, work, and age” that influence people’s health.[43] Also referred to as “drivers” of health, the social determinants of health are categorized into economic stability, neighborhood and physical environments, education, health care, and social and community conditions.[44] Employment, income, savings and wealth, housing, transportation, access to food and health care, and social support systems, to name a few, are all social determinants of health that can exacerbate health impacts during difficult times.

For instance, the ability for individuals and families to avoid the impacts of negative shocks and to adapt is often a function of economic stability, including having savings, wealth, and access to financial assistance. Housing and employment also are social determinants of health that are interrelated and have implications for the impacts of negative shocks on health of residents in the New Orleans metropolitan region.

At times, these impacts manifest when residents are unhoused. Though the number of homelessness overall and number of people living unsheltered has drastically fallen in the years immediately after Hurricane Katrina, total people experiencing homelessness in Orleans and Jefferson parishes has increased since 2020, mainly driven by an increase of people living in shelters.[45] This is largely shaped by insufficient amounts of affordable housing in the city.[46] Ensuring safe, adequate, and affordable housing for all New Orleans residents would improve the health of the population overall and ameliorate the direct and indirect effects of negative shocks such as hurricanes, flooding, and extreme heat events.

Indeed, a substantial proportion of the region's residents are burdened by high housing costs, with roughly one-third of renters in Orleans Parish spending more than 50 percent of their income on housing.[47] Reducing housing costs and increasing wages for metropolitan New Orleans residents is a crucial part of addressing the stressors related to housing that can lead to poorer health outcomes.

Transportation inequities also lead to negative health shocks. Street flooding due to heavy rains, for example, can be avoided by some residents who can work from home, enabling them to avoid exposure to dangerous transit situations. In contrast, people working jobs with hourly wages and without the option to work remotely may be pressured to come to work during flooding—whether driving, walking, biking, or using public transportation—due to potential lost wages. Approaches to address these concerns can ameliorate these types of exposures.

Overall, then, racial inequities in income and wealth in metropolitan New Orleans are demonstrably linked to racial inequities in the health impacts of negative shocks. The region is consistently ranked among metropolitan areas of the United States with the highest income inequality.[48] According to the most recent data from the U.S. Census Bureau, metropolitan New Orleans has the fifth-highest income inequality in the contiguous United States.[49] The city of New Orleans itself has the second-highest level of income inequity among U.S. cities, and income inequity has increased over time.[50] According to a report by The Data Center, the median net worth among Black residents of metropolitan New Orleans was $18,000 in 2018 while the median net worth among White residents was $181,000.[51]

Additionally, the rebuilding and restructuring of metropolitan New Orleans after Hurricane Katrina increased economic inequities in New Orleans. The destruction caused by flooding from Hurricane Katrina and the failure of the federal levees, for example, shaped the subsequent gentrification process, resulting in the displacement of Black residents from communities including 7th Ward, Broadmoor, Central City, Holy Cross, Irish Channel, McDonogh, parts of Mid-City, and Treme neighborhoods,[52] alongside wealth-building among incoming White residents.[53]

Collaboration to address the social determinants of health to improve the capacity for resilience

Though the field of public health has long recognized the role of social determinants of health in the overall health of populations, the perceptions of public health institutions and practitioners with regard to their role in addressing social determinants of health is changing. Akin to the "Health in All Policies" approach, public health institutions and practitioners who are working to address health inequities view addressing social determinants of health as a fundamental part of public health practices.[54] Working collaboratively with community organizations and other governmental entities, public health entities such as local health departments and educational institutions actively participate in addressing the social determinants of health and work to address the health impacts of negative shocks.

Coordinated health care is an essential part of disaster preparedness. Particular populations, however, such as those with low incomes, people with chronic

diseases, pregnant people and new parents, people with disabilities, and the elderly need support during and after negative shocks that may fall outside of the health care system. These types of supports targeting groups with specific needs are often provided by nonprofit organizations.[55]

The evacuation of elderly people and those with disabilities before hurricanes, for example, or the coordinated provision of food and money after hurricanes often occur through faith-based organizations, community-based organizations, or are facilitated by nonprofit community leaders. Likewise, doula programs can provide support for pregnant people and provide postpartum care rooted in community, cultural knowledge, and expertise.

Expanding the view of the public health infrastructure to include these types of efforts can be a key approach for building health as a resilience capacity against negative shocks. And this type of work is already happening in New Orleans. Responding to inadequate governmental assistance in the past, community-based organizations and community leaders have developed mutual aid networks and approaches when negative shocks are experienced. Following Hurricane Ida in 2021, for example, mutual aid work of organizations including Culture Aid NOLA, Feed the Second Line, House of Tulip, Imagine Water Works, Lowernine.org, Sankofa Community Development Corporation, and Southern Solidarity stepped up to help residents in need.[56]

This type of mutual aid has always been occurring in communities.[57] That's why the community health resilience framework promotes preparedness for negative shocks through social and organizational connectedness.[58] Building on relationships and respect, key anchors of New Orleans culture, among them collaborative networks of community members and their leaders, alongside community organizations and institutions, can provide support for better social determinants of health for residents during and after negative shocks as a critical part of improving local health resilience.

Efforts to pursue health as capacity resilience in the New Orleans metropolitan region must recognize the leadership and knowledge of community leaders to leverage existing programs and trusted networks. There are countless community-based organizations and nonprofits that work to improve the social determinants of health of metropolitan New Orleans residents. And the New Orleans Health Department has been conducting work that aligns with the principles of collaboration and support for the work of these community-based organizations.

The city's Division of Population Health and Disease Prevention, for example, lists community-based organizations that address access to sexual health care, food assistance, and the elimination of medical debts. The Health Department also has also been active in advocating for efforts to address housing, medical debt, and workers' rights.[59] Addressing social determinants of health is a cornerstone of the New Orleans Health Department Community Health Improvement Plan, including advocacy and partnerships.[60]

Moreover, the New Orleans Health Department has listed collaboration and support for community organizations as part of its equity priorities.[61] There also are active collaborations between public health entities, higher education institutions, and community-based organizations to address the social determinants of health in and around New Orleans. This collaborative work can be expanded and support for it can be increased. Importantly, this approach respects and centers the work and expertise of community organizations while harnessing the power and resources of governmental institutions.

One case in point: NOLA Ready, the emergency preparedness program in Orleans Parish, has a list of 70 community-based organizations that it partners with to respond to emergencies.[62] Increasing coordinated approaches to improve the social determinants of health of New Orleans residents before, during, and after negative shocks would mitigate the health impacts of negative shocks.

These approaches should prioritize populations most in need, such as people with disabilities, the elderly, pregnant and postpartum people, and people with chronic conditions. By building on the work, trust, and cultural knowledge of community organizations already working to address social determinants of health in metropolitan New Orleans, this type of collaborative effort can include these organizations and public health and other governmental entities with formalized support and funding.

Doing so will strengthen the resilience capacity of the New Orleans metropolitan region by improving the social determinants of health of those most in need before, during, and after negative shocks. Moreover, supporting and improving these efforts will result in a model that can be replicated in other areas of the country.

Opportunities for policymakers and community leaders

As demonstrated by existing mutual aid networks that work to address the needs of residents after negative shocks and community organizations already working to address the social determinants of health, the communities of New Orleans know what is needed to respond to negative shocks and will organize to survive and provide for the residents of the New Orleans region. Policymakers and community leaders, however, can support expanded efforts to address the social determinants of health to achieve optimal population health among residents of the New Orleans metropolitan region.

Efforts to eliminate poverty, build wealth, eliminate income inequality, ensure jobs with a livable wage for all, provide homes for unhoused residents alongside more affordable housing, and provide access to food and health care will improve health overall in the New Orleans region and reduce the health impacts of the increasingly more frequent negative shocks experienced in our region. Public health and health care institutions work collaboratively with community organizations to advocate for these changes.

Furthermore, efforts to address the social determinants of health in metropolitan New Orleans should account for the enduring consequences of systemic racism and seek to eliminate racial inequities in the social determinants of health.[63] Doing so will address racial health inequities in general, as well as racial differences in the impacts of negative health shocks. There are a number of organizations working to address the various social determinants of health among Black, Asian, and Hispanic residents of the New Orleans region, and their work should be uplifted and supported.

Given the critical need for disaster preparedness in metropolitan New Orleans, the existing framework for collaborating with community-based organizations in emergencies, and with numerous community-based organizations that currently work to address the social determinants of health, can be further built upon and expanded. It is imperative that policymakers support new and expanded efforts to organize networks and preparedness approaches to meet the needs of residents of metropolitan New Orleans before, during, and after negative shocks. These efforts can include:

- Creating formal positions and efforts within public health institutions dedicated to building health as a resilience capacity
- Identifying and recruiting community-based organizations currently conducting work to improve the social determinants of health in New Orleans communities
- Building on established relationships and networks to foster connections across community-based organizations and public health entities
- Identifying adverse social determinants of health during and after negative shocks and then providing support for priority populations such as New Orleans residents with low incomes, people with disabilities, the elderly, pregnant and postpartum people, and people with chronic conditions

- Developing community-based and culturally informed plans for improving the social determinants of health of residents during future negative shock events
- Monitoring and evaluating these collaborative efforts

Policymakers should provide adequate funding for the institutionalization and sustainability of efforts that are already occurring and should support expanding these efforts.

Conclusion

For various reasons, the New Orleans metropolitan region is vulnerable both to avoidable and unavoidable negative shocks. Building the capacity for resilience across the region and for all of its residents will save lives and reduce hardships amid increasingly frequent and intense negative shocks. Improving population health is an overall goal the region's residents deserve, yet it is imperative to mitigate the impacts of negative shocks.

To do so, addressing the social determinants of health needs of the New Orleans region and eliminating racial and economic inequities are critical. Building on established work and relationships, approaches to address these needs before, during, and after negative shocks should be planned collaboratively across public health institutions and community-based organizations. Policymakers should support these efforts with sustainable funding to establish community-driven and culturally rooted efforts for health resilience capacity that can be a model for the rest of the United States.

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About The Data Center

The Data Center, a project of Nonprofit Knowledge Works, is the most trusted resource for data about Southeast Louisiana. Founded in 1997, we provide fully independent research and analysis to offer a comprehensive look at issues that matter most to our region. With a mission of democratizing data, The Data Center has, and continues to be, an objective partner in bringing reliable, thoroughly researched data to conversations about building a more prosperous, inclusive, and sustainable region.

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The New Orleans Index at Twenty collection includes contributions from The Data Center, the Brookings Institution, and a dozen local scholars. The aim of this collection is to advance discussion and action among residents and leaders in greater New Orleans and maximize opportunities provided by the 20-year anniversary of Hurricane Katrina.

The New Orleans Index at Twenty: Measuring Progress toward Resilience analyzes more than 20 indicators to track the region's progress toward metropolitan resiliency, organized by housing and infrastructure, economy and workforce, wealth and people. Essays contributed by leading local scholars and Brookings scholars systematically document major post-Katrina reforms, and hold up new policy opportunities. Together these reports provide New Orleanians with facts to form a common understanding of our progress and future possibilities.

The New Orleans Index series, developed in collaboration with the Brookings Institution, and published since shortly after Hurricane Katrina, has proven to be a widely used and cited publication. The Index's value as a regularly updated, one-stop shop of metrics made it the go-to resource for national and local media, decisionmakers across all levels of government, and leaders in the private and non-profit sectors.

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