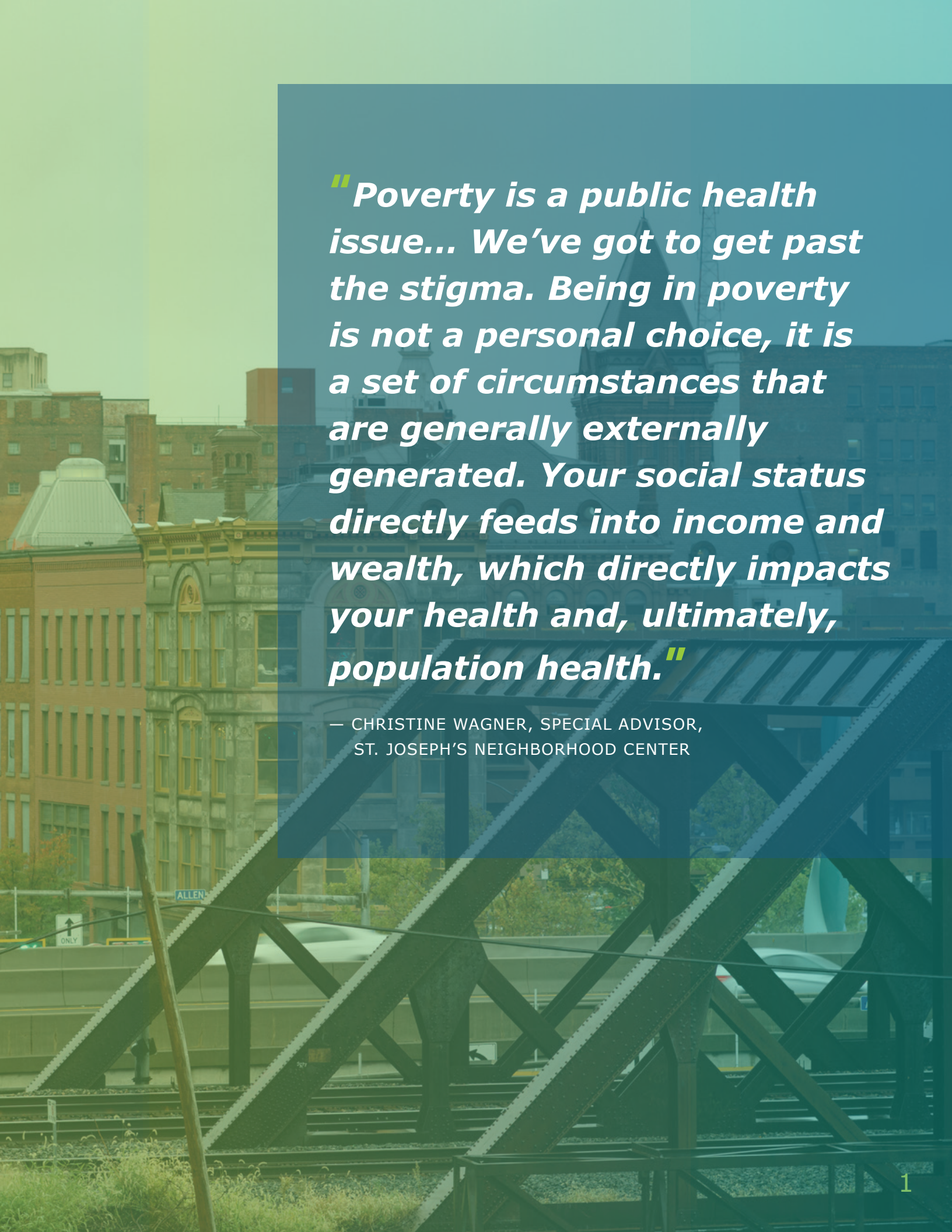




Overloaded:

The Heavy Toll of Poverty
on Our Region's Health



The background of the page is a photograph of an urban scene. In the foreground, there is a large, dark metal truss bridge structure. Behind it, a multi-lane highway with a concrete barrier is visible. In the background, several city buildings are visible, including a prominent brick building with many windows and a taller building with a clock tower. The sky is a pale, hazy blue. A semi-transparent dark blue rectangle is overlaid on the right side of the image, containing the quote and attribution text.

"Poverty is a public health issue... We've got to get past the stigma. Being in poverty is not a personal choice, it is a set of circumstances that are generally externally generated. Your social status directly feeds into income and wealth, which directly impacts your health and, ultimately, population health."

— CHRISTINE WAGNER, SPECIAL ADVISOR,
ST. JOSEPH'S NEIGHBORHOOD CENTER

Executive Summary

Our region's number one health concern is poverty. It drives health inequities that undermine wellness and cut lives short more than any other single cause of illness, costing the region more than \$1 billion annually.

Yet we've largely failed to understand how poverty deprives whole populations of vigor and longevity in the Finger Lakes region. Doctors cannot check poverty as a diagnosis when a person with diabetes loses a limb needlessly because they could not afford medications, transportation and healthy foods. Poverty cannot be listed as the cause of death when a baby does not survive because her low-income mother could not access prenatal care.

As Wade Norwood, CEO of Common Ground Health, observes: "As much as we all talk about poverty, as much as we all talk about health, we've kept them completely apart."

Overloaded: The Heavy Toll of Poverty on Our Region's Health aims to close that gap. Weaving together health data, survey responses and personal stories, this report connects the dots between life lived on the financial edge and appalling health inequities—unfair and avoidable sickness and death linked to income, race and other factors.

The face of poverty is not Black or Latino or White, but all of the above, and the devastating and unnecessary health outcomes associated with being poor are felt throughout our entire region.

To quantify disparities linked to extreme financial stress, Common Ground measured the difference in health outcomes between populations with and without socioeconomic advantages. The study found that by nearly every health metric, residents of the Finger Lakes who are poor experience alarmingly worse health outcomes.

Among the findings:

- Health inequity steals more years of life across the region than opioid overdoses, homicide, suicide and lung cancer combined. More years of life are lost to health inequity than all forms of cancer combined.
- Residents from neighborhoods with poverty rates of 30% or more die eight years earlier on average than residents from neighborhoods with poverty rates of less than 5%.
- During the years 2014-2016, 44% of the region's emergency room visits were attributable to health inequity. That percentage translates to 194,000 excess ED visits per year and \$390 million in additional annual insurance billings across the Finger Lakes.
- Compared to residents with household incomes more than \$75,000, those with incomes under \$20,000 are 105% more likely to lose their teeth, 154% more likely to have diabetes, and 224% more likely to be diagnosed with depression.

- In Rochester, low-income census tracts with the highest rates of health-related housing violations experienced asthma-driven emergency department visit rates that were nearly nine times higher than in the city's suburbs – 1,916 vs. 221 visits per 100,000 residents.

As these outcomes demonstrate, poverty is a public health issue. Without this larger context, however, the default can be to blame individuals for their financial situations and resulting poor health. High diabetes rates may be blamed on personal habits, not the inability to afford fruits and vegetables or the lack of safe neighborhoods for walking and playing.

Chris Wagner, special advisor for St. Joseph's Neighborhood Center, puts it this way: "We've got to get past the stigma. Being in poverty is not a personal choice, it is a set of circumstances that are generally externally generated."

Those circumstances are widespread. Although poverty is more concentrated in urban and rural communities and among Blacks and Latinos, roughly one third of people below the poverty line reside in suburbs and the majority of those in poverty, 55%, are White.

The face of poverty is not Black or Latino or White, but all of the above, and the devastating and unnecessary health outcomes associated with being poor are felt throughout our entire region, at a formidable expense. The total price tag for health inequity, including added health care costs and lost economic productivity, tops \$1 billion in the nine-county Finger Lakes region annually. All of us share this preventable burden through personal loss and sickness and/or through

much higher health care and social service expenditures for government, business and residents.

That's why all of us—organizations, decision makers and residents—have a stake in eliminating health inequities.

The research shows that a long, healthy and happier life is possible in our region because such a life is already the norm for more affluent populations.

Meeting this goal is within our grasp. The Finger Lakes region has a proud history of public health success when we come together. In recent decades, collaborations have significantly reduced lead poisoning and improved hypertension control rates. Our region also enjoys an unusually strong tradition of partnering across the health care ecosystem, one of the many reasons we enjoy high quality care at some of the lowest costs in the nation.

Building on this community wide approach, this report aims to spark new collaboration focused on eliminating health inequities. Education, government, health care, faith institutions and other sectors all have a role to play in finding solutions. The study's insights and hard data provide a springboard for unraveling the tangle of structural barriers that condemns populations with fewer financial resources to vastly higher health risks.

The research shows that a long, healthy and happier life is possible in our region because such a life is already the norm for more affluent populations. Together we can guarantee those benefits for all groups.



A Region-Wide Epidemic



The nine-county Finger Lakes region – from Rochester to Elmira, Hornell to Seneca Falls – spans rural, urban and suburban geographies and includes lakefront homes, farms and city apartments. It is a region of unsurpassed beauty and unconscionable poverty.

Our community is a microcosm of the country, where income inequality is the highest since the 1920s. The Finger Lakes is a study in socioeconomic contrasts: top-performing suburban schools just a few miles from struggling urban schools; leading global businesses alongside some of the highest rates of child poverty; world-renowned health care providers yet alarming disparities in health outcomes.

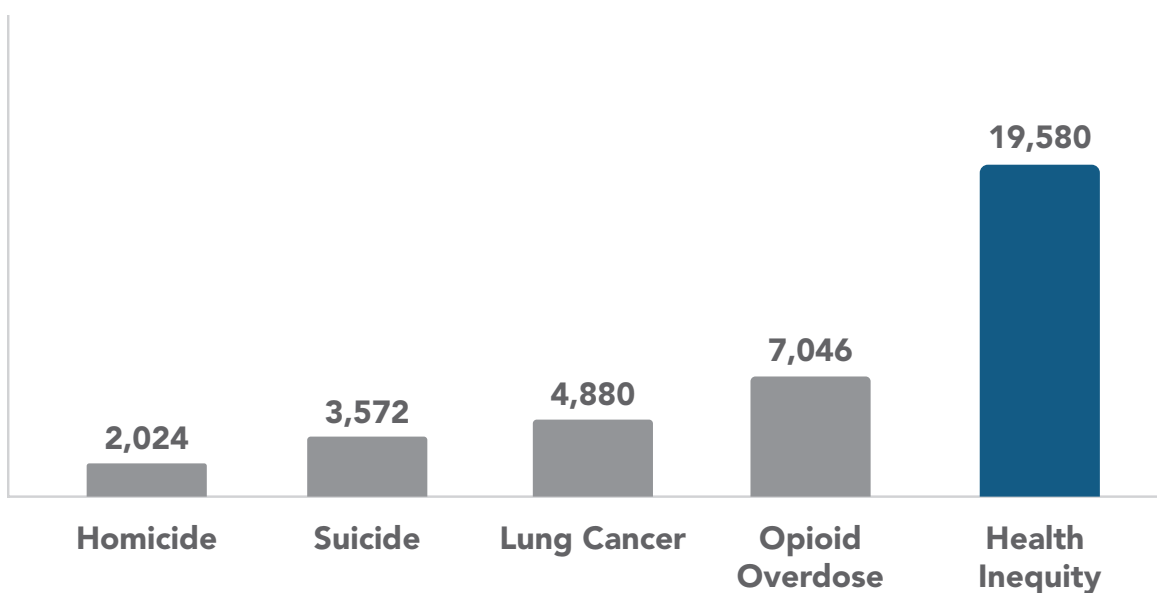
Unfortunately, health inequity—unfair and avoidable illness and death linked to income, race and other factors—is largely hidden from the public eye. But its toll in the Finger Lakes is deadly. Health inequity steals more years of life across the region than opioid overdoses, homicide, suicide and lung cancer combined.¹ More years of life are lost to health inequity than all forms of cancer combined.[†]

"Of all the forms of inequality, injustice in health is the most shocking and the most inhuman."

— MARTIN LUTHER KING JR^Δ

Health Inequity is a Major Cause of Early Death

Years of Potential Life Lost[†] in the Finger Lakes Region Annually



Source: NYSDOH Vital Statistics 2013-2015*; Age-sex adjusted analysis by Common Ground Health
Excess mortality calculated based on difference between each population's actual age-sex adjusted rate
of mortality and the baseline rate (SES 4-5 white non-Hispanic)

*Opioid overdose data for 2017 from New York State County Opioid Quarterly Report, October 2018, NYSDOH

Measuring the Impact of Health Inequity

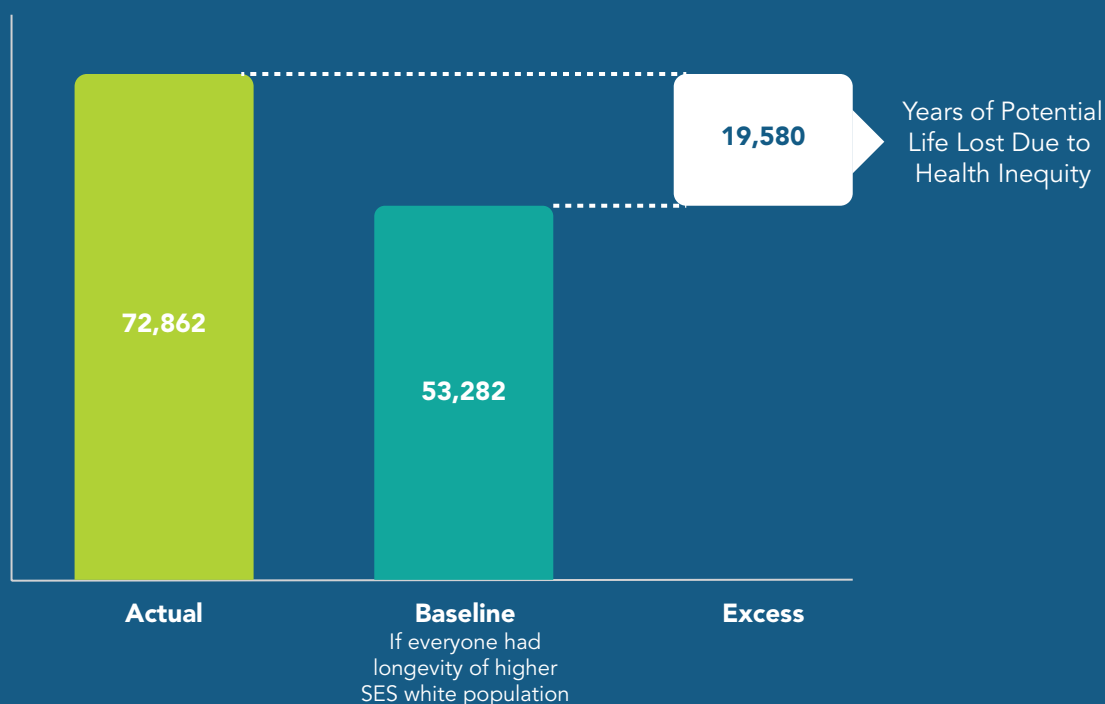
According to the World Health Organization, “Health inequities are differences in health status or in the distribution of health resources between different population groups, arising from the social conditions in which people are born, grow, live, work and age.”

While the effect of health inequities is clear in many metrics as shown throughout this report, the disparity in premature mortality is particularly striking. Premature mortality is often measured by years of potential life lost, which is an estimate of the additional years a person would have lived if they had not died early.[†]

As shown below, the regional annual toll of health inequity is nearly 20,000 years of life lost prematurely. This is the difference between the actual number of years of potential life lost across the region, and what the number would have been if everyone had the same longevity as the White residents of areas with above average socioeconomic status.[‡] This huge unnecessary loss of life is greater than the total years of life lost to all forms of cancer combined.

The largest driver of this excess premature mortality is socioeconomic inequality. Over 80% of these lost years of life are attributable to differences in socioeconomic status.

Years of Potential Life Lost Due to Health Inequity in the Finger Lakes Region Annually



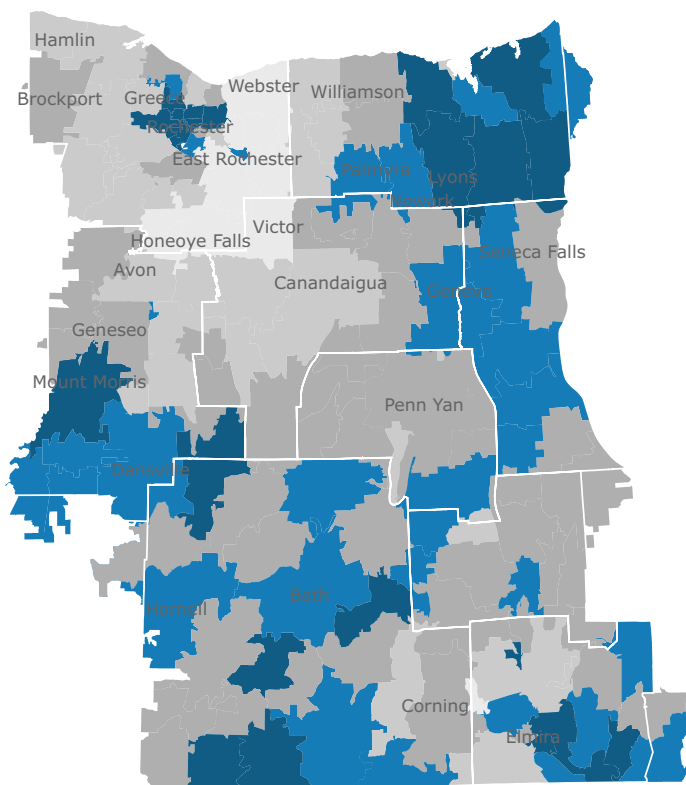
Source: NYSDOH Vital Statistics 2013-2015; Age-sex adjusted analysis by Common Ground Health

Beyond its devastating effect on length of life, health inequity diminishes quality of life for tens of thousands of people in our communities. For example, disparities in the prevalence and treatment of diabetes mean that an estimated 25,000 additional people in the region suffer unnecessarily from the disease and its complications.²

The largest force behind health inequity is socioeconomic inequity. As this report highlights, there are many ways that poverty and less extreme versions of financial stress undermine physical and mental health. The results are clear when looking at the disparities in life span across the region. Residents of census tracts with a 30% or higher rate of poverty die eight years earlier on average than residents in tracts with poverty rates below 5%.³

Low Income Areas Typically Have the Highest Premature Mortality Rates

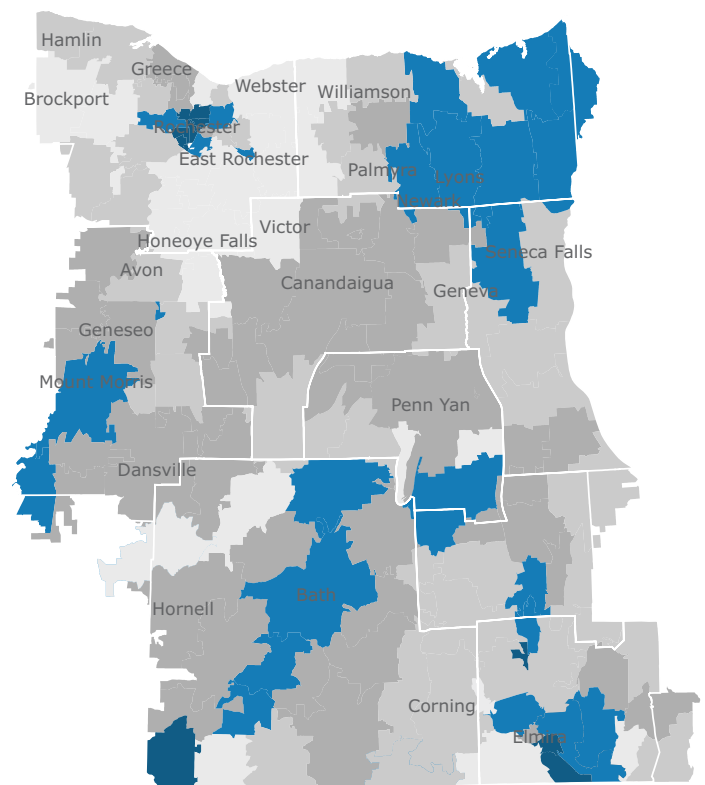
Areas with Low Socioeconomic Status in Blue[†]



SES 1
 SES 2
 SES 3
 SES 4
 SES 5

Source: American Community Survey;
ZIP code level analysis by Common Ground Health

Areas with High Rates of Years of Potential Life Lost in Blue[†]



More than 150% of region avg
 121-150% of region avg
 101-120% of region avg
 81-100% of region avg
 Up to 80% of region avg

Source: NYSDOH Vital Statistics 2006-2015;
ZIP code level analysis by Common Ground Health

A closer look at the data reveals that the areas with the lowest life expectancy are distributed across the region. While many of the census tracts with shorter life expectancies are in the core urban centers of Rochester and Elmira, others include smaller cities such as Geneva and Hornell, and rural areas around towns like Woodhull in Steuben County and Tyrone in Schuyler County. What these seemingly disparate areas share is high poverty rates of at least 20%.

Poverty is an urban problem. It is a rural problem. It is even a suburban problem, as nearly one-third of the people living in poverty reside in the suburbs. It is especially a challenge for our region's minority populations, as Black and Latino residents face rates of poverty that are more than triple the White rate, and are also more likely to live in areas with high concentrations of poverty. Poverty is also a challenge for the White population, which comprises the majority (55%) of people in poverty in the Finger Lakes region.⁴

The Cost of Health Inequity

Health inequity is expensive and a huge drain on the region's economy. Emergency department visits provide a good case study. During the years 2014-2016, 44% of the region's emergency room visits were attributable to health inequity. This is 194,000 excess ED visits per year, driving \$390 million in additional annual billed costs across the Finger Lakes. And preventable emergency department visits are just one element of medical expenditures.⁵

The total cost of health inequity exceeds \$1 billion annually.

Health inequities propel additional expenditures in most aspects of clinical care including inpatient hospital stays, office visits, prescriptions, imaging, and lab testing. Adding in the economic cost of lost productivity and lives, the total cost of health inequity exceeds \$1 billion in the Finger Lakes region annually.*



The Health Impacts of Poverty



Poverty and general financial insecurity send residents to an early grave across the region, regardless of geography, race or ethnicity. Put simply, if poverty were a virus, it would be declared a crisis and dominate the headlines.

In the Finger Lakes region, residents of ZIP codes with the lowest socioeconomic status (SES 1) have a premature mortality rate that is 2.4 times the rate of those in the ZIP codes with the highest socioeconomic status (SES 5). Half of this large disparity is explained by

four causes of death: heart disease, cancer (driven by lung cancer), homicide and premature birth disorders. The variety of those causes is indicative of the varied and broad impacts of poverty on health.⁶

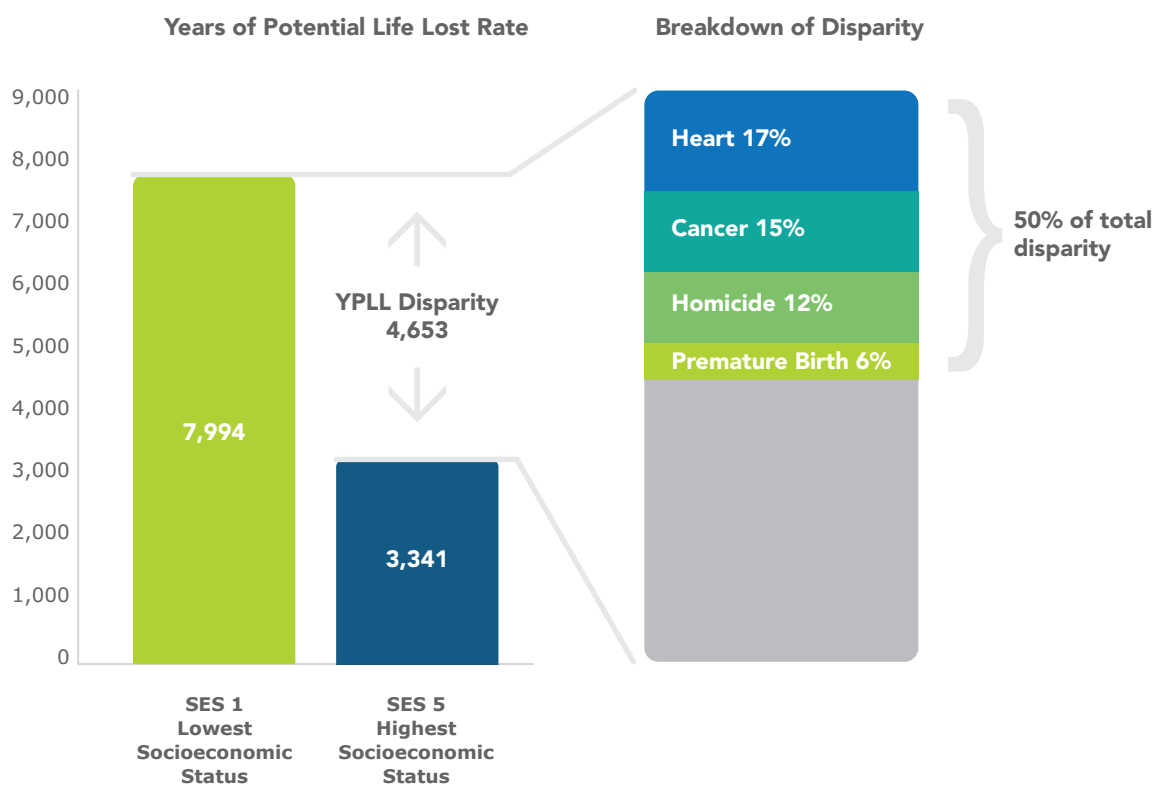
Put simply, if poverty were a virus, it would be declared a crisis and dominate the headlines.

Nearly every health metric is worse among residents who are poor. In the Finger Lakes, most chronic health issues are much more prevalent among those with incomes under \$20,000 per year than they are among those with annual household incomes over \$75,000.⁷

Among those with the lowest incomes:

- Diabetes is 154% more likely;
- Asthma has a 239% higher incidence;
- Removal of teeth is 105% more common; and
- Depressive disorders are 224% more likely.

Half of the Large Disparity in Premature Mortality Rate is Explained by Four Causes of Death



Source: NYSDOH Vital Statistics 2013-2015;
age-sex adjusted analysis by Common Ground Health

Hypertension

Andrea Clarke, community health advocate with Anthony Jordan Health Center, sees the stories of disparities play out every day.

"I struggle with high blood pressure myself, so I understand the constant vigilance it takes to manage it," she says. "But sometimes people are dealing with so many other difficult life situations, I don't even start by talking about blood pressure control. I start with where they are when I come into the picture."

Hypertension is very common among the low income population. In the Finger Lakes region, just over half of adults over the age of 35 with household incomes under \$25,000 per year suffer from hypertension, which is a 38% higher prevalence than found among the high-income population (households with income of at least \$75,000). And even more problematic is that the low income population is 318% more likely to have hypertension that

is not well-managed. Neither of these statistics are surprising given barriers to care and the variety of additional risk factors that are more common among the financially insecure.⁸

"Patients feel like hypertension is part of the family," Clarke says. "It's just a given for a lot of people. They just figure that eventually, they are going to get it."

A recent regional survey helps to illuminate the "why" behind these disparities. Of those with incomes under \$25,000 per year who aren't managing their hypertension well, diet, medication adherence challenges, and prescription drug access were the most commonly cited obstacles to getting their blood pressure under control.⁹

Availability of nutritious food is a major problem for the low income population. More than half (57%) of residents with low income and uncontrolled high blood pressure said they simply can't afford healthier food, and 17% report that they don't have transportation to supermarkets.





Poverty: The Ultimate Social Determinant of Health

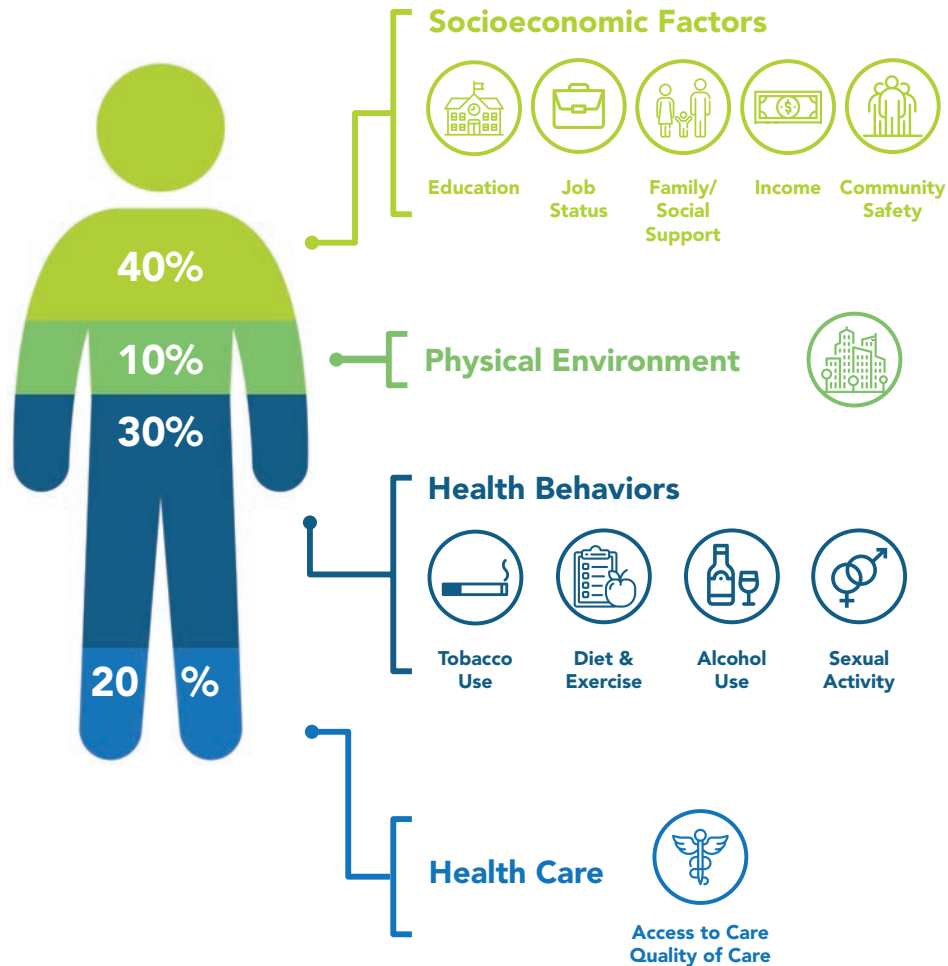


Poverty has an outsized effect on community wellness because it profoundly influences every single social determinant of health.

The commonly cited model developed by the University of Wisconsin Public Health Institute identifies the factors that drive population health. This framework attributes 80% of modifiable health outcomes to social determinants – socioeconomic factors, physical environment and health behaviors – all of which are affected when resources are limited. Clinical care, which accounts for the remaining 20% of outcomes, is much more difficult to access for those in poverty.

Guy Morse, a peer support manager at Finger Lakes Area Counseling & Recovery Agency, puts it simply, “With our clients, there are three main worries: food, housing and employment. And if a client doesn’t address them all, they are less likely to be successful.”

Poverty Undermines the Foundations of Population Health



Source: The Bridgespan Group; adapted from the University of Wisconsin Population Health Institute's County Health Rankings model.

"With our clients, there are three main worries: food, housing and employment. And if a client doesn't address them all, they are less likely to be successful."

– GUY MORSE, PEER SUPPORT MANAGER, FINGER LAKES AREA
COUNSELING & RECOVERY AGENCY

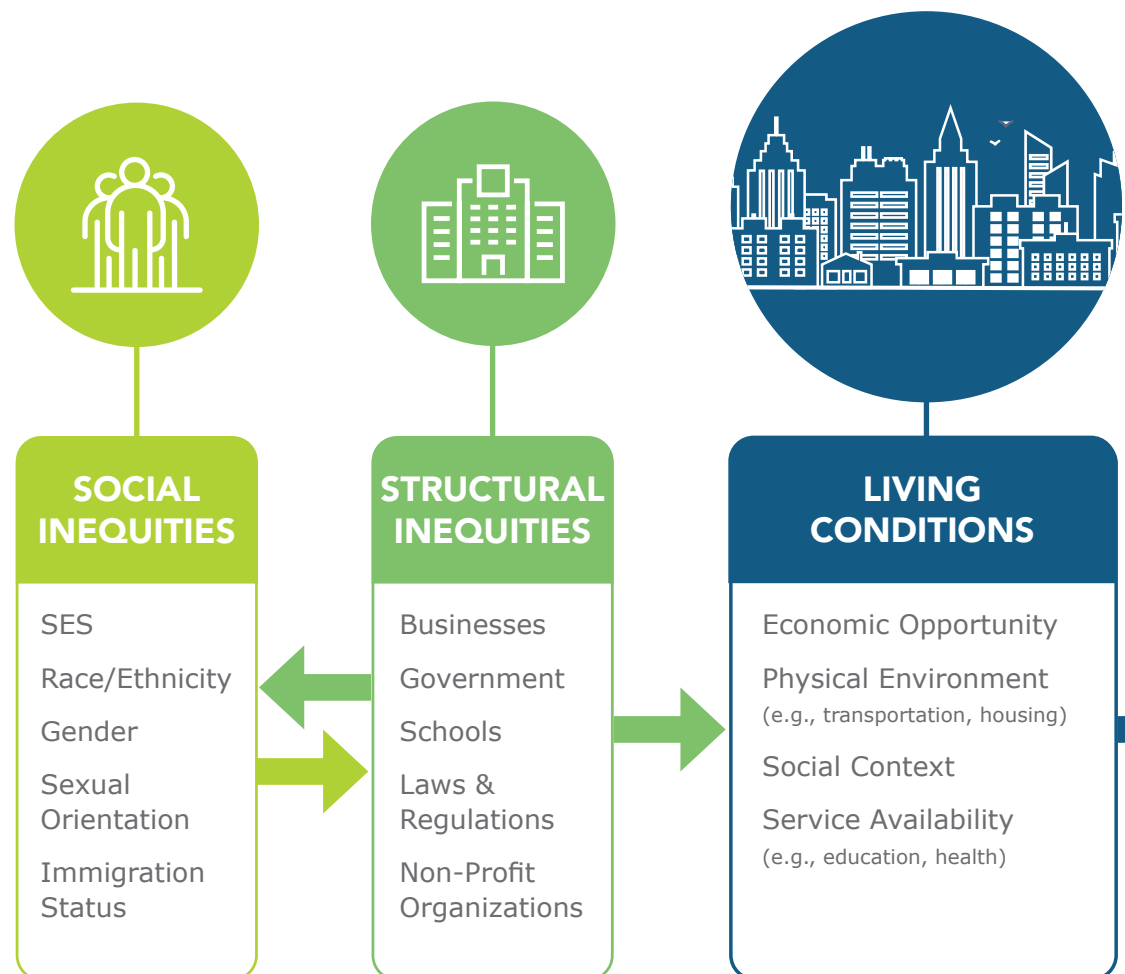
The Health Inequity Pathway shows how underlying societal and structural inequities create a cascade of obstacles and risk factors which ultimately manifest in higher rates of illness and mortality. Living conditions (such as housing, economic stability and access to food) are the central component of this framework, because they define the reality, possibilities and choices available to a person.

Housing provides a good case study for the many ways that poverty creates risks and barriers to being healthy.

The most direct health impact from housing comes from exposure to toxins such as mold and lead, which are more prevalent in housing in poorer neighborhoods. A variety of sub-standard housing issues, such as water leaks, poor ventilation and older carpets, can lead to an increase in mold, mites and other allergens associated with poor respiratory health.

An analysis of City of Rochester Certificate of Occupancy inspection data found that health-related housing violations were more prevalent within the poorest census tracts, and were clearly correlated with higher rates of health problems. In Rochester census tracts

Health Inequity Pathway

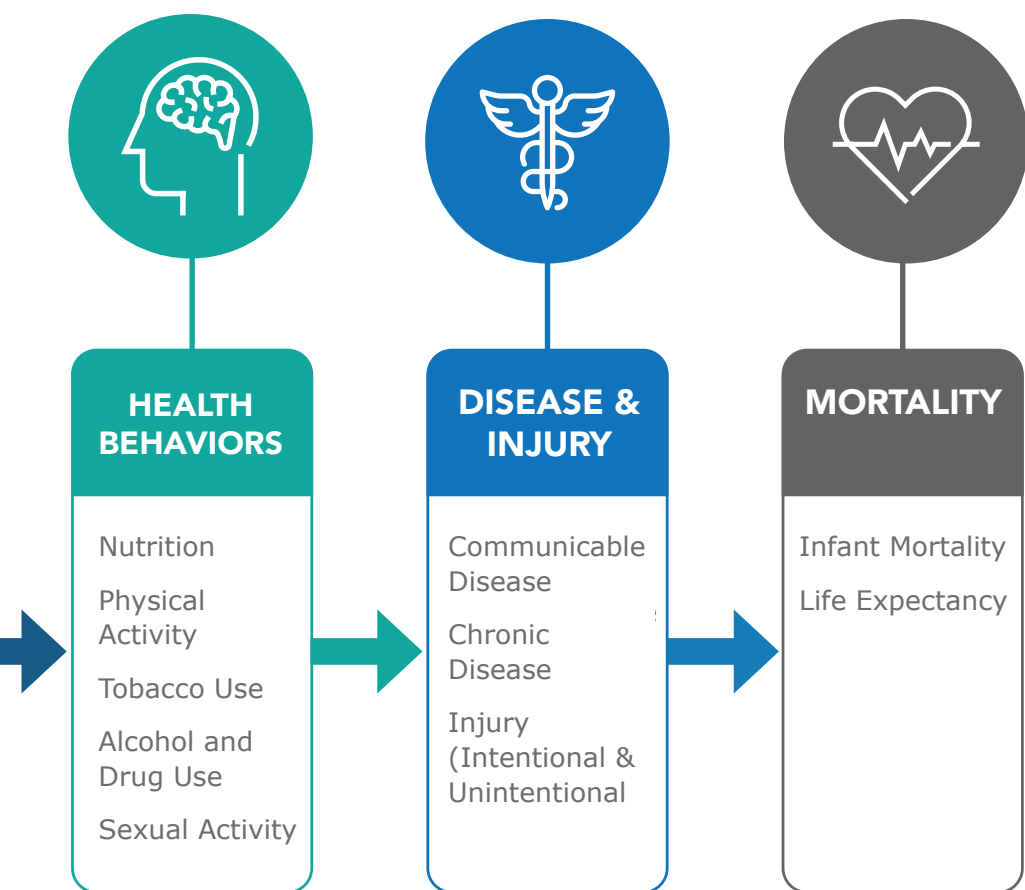


with the highest rate of health-related code violations, the rate of asthma-driven ED visits was nearly nine times the rate in suburbs – 1,916 vs. 221 visits per 100K population.¹⁰ Lead poisoning from paint dust and chips in older homes also remains a significant health concern, despite more than a decade of focused local efforts and progress to reduce the exposure risk.

Beyond the direct impact of potential physical hazards, housing has a variety of indirect effects on health. Housing costs are an overwhelming burden for low-income households. When a large portion of a family's

total income is spent on rent or mortgage payments, less money remains for nutritious food, medical care, prescriptions, and other health-related needs.

Additionally, the stress of worrying about housing has real impacts on physical and mental health. Among Finger Lakes residents who self-identified as being “always stressed” about affording their rent/mortgage payment, 22% reported having poor physical or mental health – more than three times the rate of the residents who were less (or not) worried about housing costs.¹¹



Source: Adapted from the Bay Area Regional Health Inequities Initiative's Public Health Framework for Reducing Health Inequities

Over a longer time horizon, families that cannot afford to own a home miss out on one of the proven ways to build wealth. While income represents the current flow of money, wealth is the value of accumulated assets. In addition to providing general financial stability, wealth enables investments in education and other opportunities important to future health and well-being. As a study by the Joint Center for Housing Studies at Harvard University concluded, “homeownership continues to be a significant source of household wealth, and remains particularly important for lower-income and minority households.”¹²

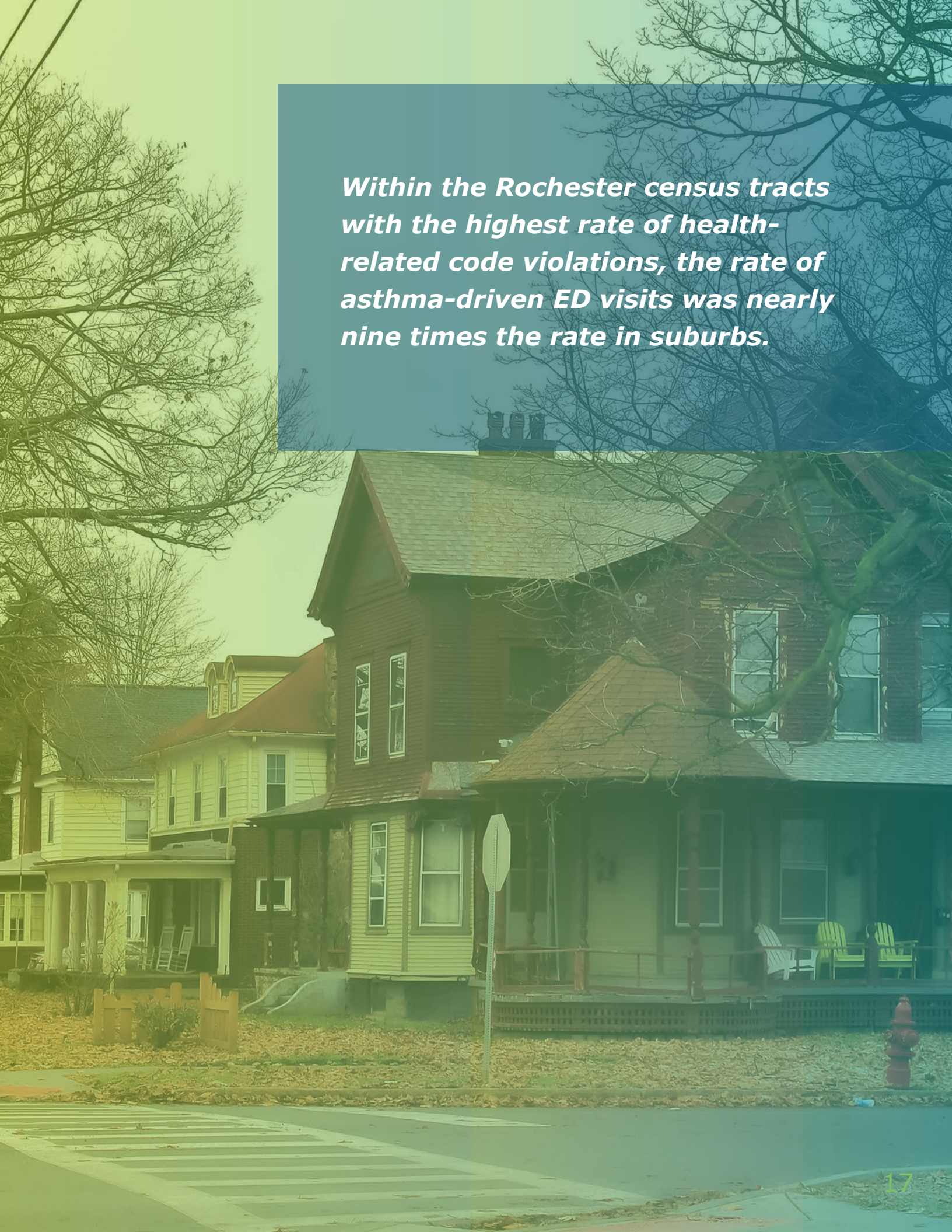
It is critical to understand that upstream social and structural inequities exacerbate the often challenging living conditions faced by those at the bottom of the socioeconomic ladder. Redlining, the systematic denial of mortgage lending and other financial services to residents of perceived high risk neighborhoods, is an example of a discriminatory policy that has had large and long-lasting adverse impact on the ability of low-income and minority populations to build wealth. While lenders have been prohibited from redlining low-income neighborhoods since the 1977 federal Community Reinvestment Act, there is evidence that the practice still occurs. In 2015, a local bank settled allegations from the New York State Attorney General’s Office that the bank had defined its Rochester-area lending map to exclude the City of Rochester and other lower-income and largely minority neighborhoods.¹³

Another widespread practice that made it harder to find and afford housing was the refusal of many landlords to accept nonwage

sources of income. It was only with the recent April 2019 amendment to the New York State Human Rights Law that landlords can no longer refuse lawful sources of income including Section 8 Housing Choice Vouchers, Supplemental Security Income, Social Security Disability and other government subsidies.¹⁴

This legislation is a step in the right direction, removing one of the structural inequities that contributes to the massively uneven playing field faced by those in poverty. The law provides a good example of the need to understand and address the systemic upstream factors that drive health inequities. By removing such obstacles, it becomes easier for low-income populations to find homes that support rather than undermine healthy lives.

Within the Rochester census tracts with the highest rate of health-related code violations, the rate of asthma-driven ED visits was nearly nine times the rate in suburbs.



The Compounding Effects of Structural Racism

Racism and poverty are closely intertwined, and a deadly combination. Not only do poverty and poverty-driven health disparities disproportionately affect Blacks and Latinos, but racial inequities further increase the burden of poor health.

Although fully exploring the health impacts of structural racism is beyond the scope of this report, it is important to recognize some of the key factors that contribute to the layered inequities faced by Blacks and Latinos.⁵

In the Finger Lakes region, Blacks and Latinos are more than three times as likely to live in poverty as Whites. Ten percent of Whites, 35% of Blacks and 33% of Latinos live below the poverty line.¹⁵ These higher rates of poverty are a result of institutional racism over time and research has shown that Black and Latino populations continue to face structural racism that limits access to opportunities and resources in employment, housing, credit and consumer markets.¹⁶ Such barriers partly explain why Blacks and Latinos are less likely to climb the socioeconomic ladder over generations than Whites.¹⁷

The same forces of structural and societal racism that suppress socioeconomic opportunities for Blacks and Latinos create additional barriers to staying and getting healthy. The persistent toxic stress of racial and ethnic discrimination impacts health through a combination of social-emotional and physiological effects. Researchers have found higher levels of allostatic load – an indicator of neurobiological “wear and tear” – among Blacks, beyond what is explained by socioeconomic factors.^{18, 19}

Discrimination and the perception of bias also taint the delivery of health care. A University of Rochester survey of more than 700 Black patients revealed that 31% reported experiencing discrimination while receiving medical care. Perceptions of overt or institutionalized racial bias feed a level of distrust between patients and caregivers, negatively affecting patients' interest in follow-up visits or even following medical advice.²⁰

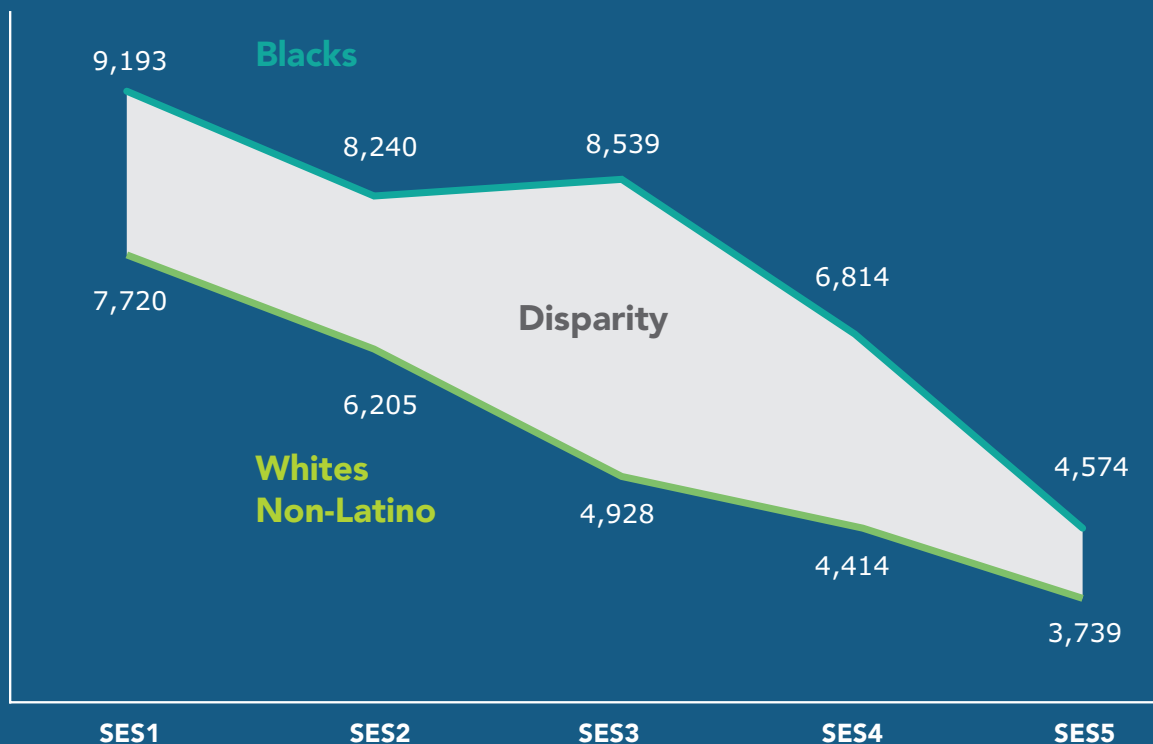
The health impacts of combined race and poverty-driven inequities lead to particularly poor health outcomes for the Black population. The premature mortality rate due to heart disease is more than double among Blacks compared to Whites; the rate

due to premature birth disorders is more than triple; and the rate due to homicide is 19 times higher.²¹

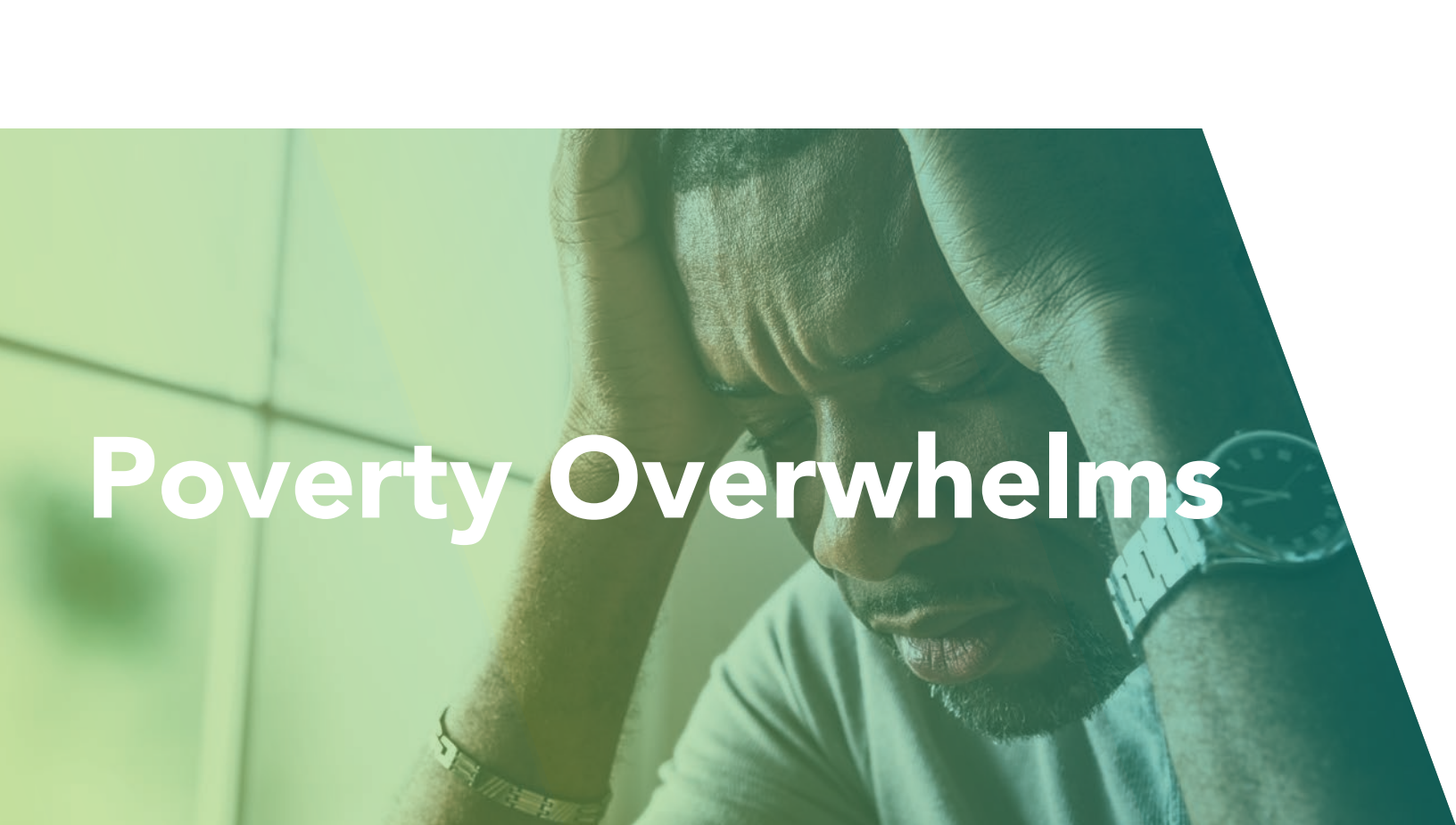
Racial discrimination undermines health even when incomes increase. Regardless of their socioeconomic status or ZIP code, Black residents in the Finger Lakes region experience a disproportionate rate of premature mortality compared to their White peers. The premature mortality (YPLL) rate for Blacks is on average 29% higher than their White peers living in areas with the same SES level.²²

Blacks Experience Health Disparities Across the Economic Spectrum

Years of potential life lost rate by race and socioeconomic status (2014-2016)



Source: NYSDOH Vital Statistics 2014-2016 for Finger Lakes nine county region;
Age-sex adjusted analysis by Common Ground Health



Poverty Overwhelms



When driving a car on unfamiliar roads, most people do the same thing: turn down the radio to reduce distractions. The reflex is real and easy to understand. Human brains were not built for difficult multitasking.

The mental strain of constantly worrying about food, shelter, multiple jobs, staying safe from neighborhood crime, fueling the car, and keeping the lights on is overwhelming and destructive. These concerns take top priority, leaving little capacity for other thought.

A causal relationship between financial worries and cognitive capacity has been demonstrated in research. One study concluded, "Just as an air traffic controller focusing on a potential collision course is prone to neglect other planes in the air, the poor, when attending to monetary concerns,

lose their capacity to give other problems their full consideration."²³

Whether an individual is poor for a lengthy period of time or finds themselves briefly financially insecure, being cash-strapped consumes mental resources, crowding out other concerns. In fact, research shows that worries about money have a cognitive impact comparable to losing a full night's sleep or suffering from chronic alcoholism.²⁴

This diminished capacity is further complicated by the physiological effects of persistent toxic stress for those who live in poverty.

According to the American Psychological Association, "Chronic stress, a long term form of stress, derives from unending feelings of despair/hopelessness, as a result of factors such as poverty, family dysfunction, feelings of helplessness and/or traumatic early childhood experience."²⁵

The long-term effect of toxic stress on children is particularly worrisome given the lasting physiological impacts on body and brain development.

The chronic and toxic stress of poverty impacts the mind and body differently than the goal-oriented stress related to pursuing achievements on the job or in school. As Carol Graham notes in her book *Happiness for All? Unequal Hopes and Lives in Pursuit of the American Dream*, "Stress that is related to daily struggles and an inability to plan ahead, as is typical for the poor... is both bad for well-being and a constraint on investing in the future. In contrast, stress that is related to hard work aimed at future benefit, such as going to graduate school, could have quite different and even positive effects."

Constant stress tied to housing, food, heat and safety (humans' most fundamental physiological needs) doesn't only undermine mental and emotional health, but also has been proven to make bodies sick. Humans are wired with a physiological fight-or-flight response to threats that activates the endocrine and nervous systems. When these stresses are compounded and persistent, the effects of elevated cortisol levels and other biochemical changes can cause lasting physical damage.

Allostatic load is the total cost of this stress-driven damage on the body and brain. In recent years, research has shown a clear connection between allostatic load and a variety of chronic health conditions including hypertension, cardiovascular disease, obesity, diabetes and arthritis. The long-term effect

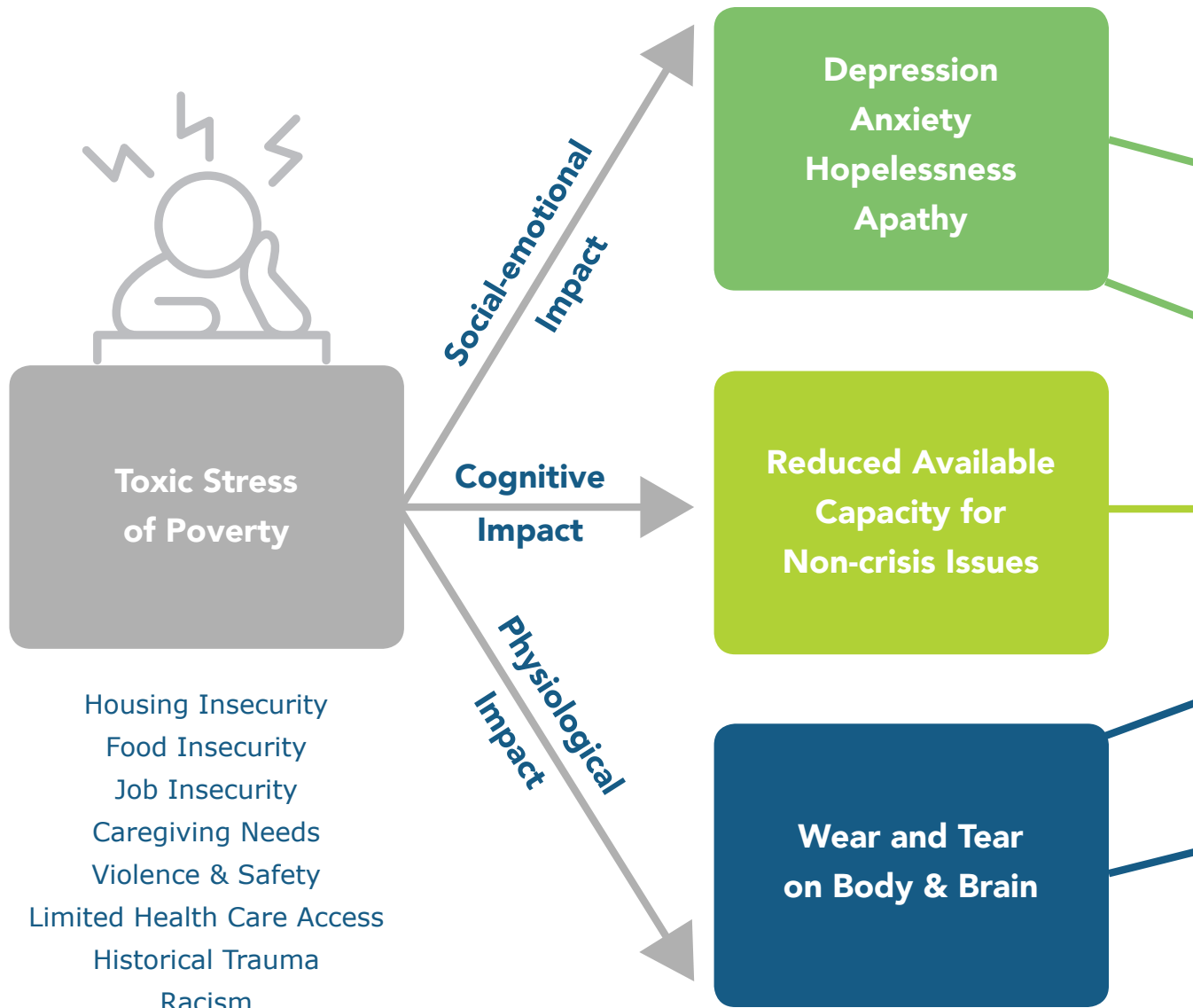
of toxic stress on children is particularly worrisome given the lasting physiological impacts on body and brain development. Numerous studies have focused on the long-term health impacts of Adverse Childhood Experiences (ACEs), an acute form of toxic stress

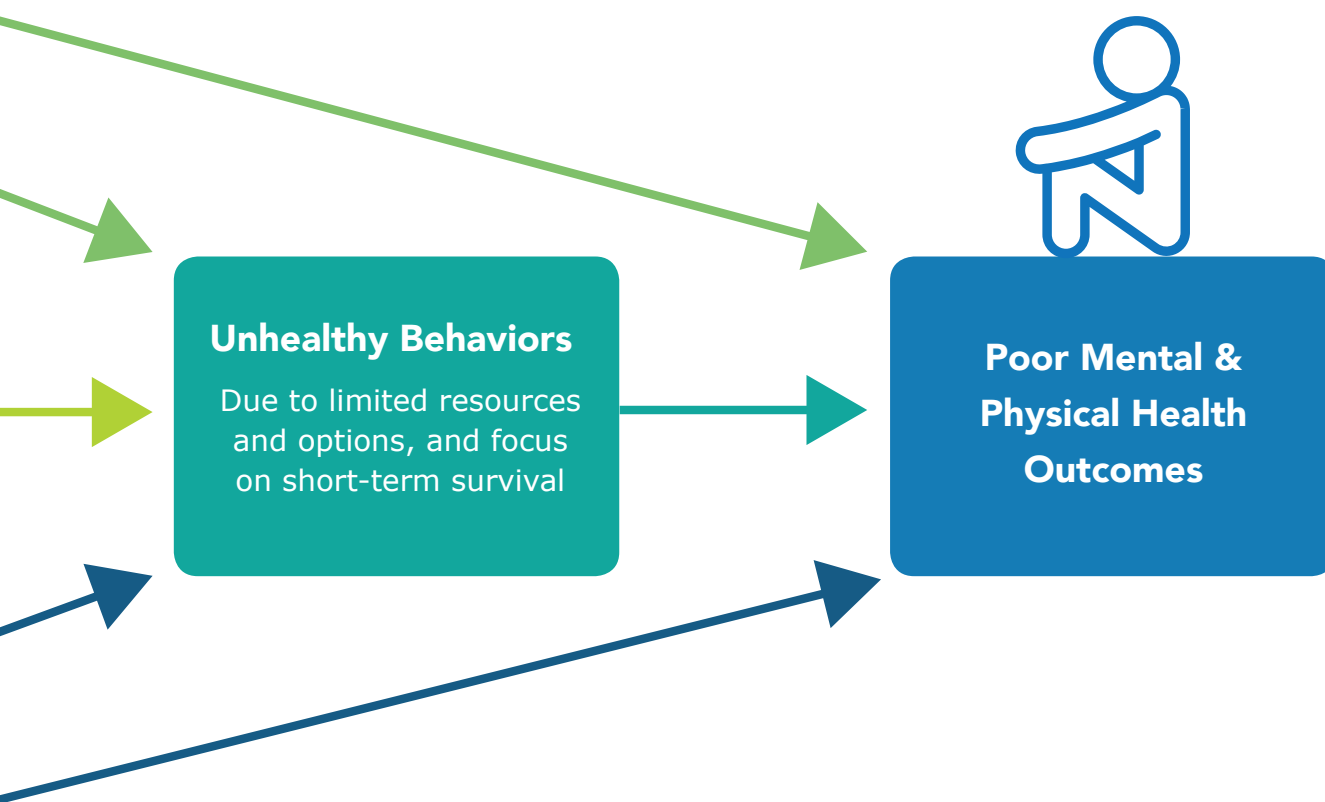
that is particularly prevalent among children in poverty.^{26,27,28}



Toxic Stress of Poverty: Pathways to Poor Health

The persistent toxic stress of poverty exacts a mental as well as a physical toll – and translates into negative health outcomes that impact individuals as well as the communities in which they live.





A 2018 survey of Finger Lakes residents illuminated the significant disparity in mental and emotional health issues between individuals in households with less than \$25,000 in income versus those with more than \$75,000 in annual income.²⁹

Residents with the lowest incomes are:

- more than three times as likely to have feelings of helplessness.
- more than four times as likely to experience significant anger; and
- nearly four times as likely to demonstrate self-destructive behaviors.

"Poverty isn't just about being poor financially," says Common Ground Health's CEO Wade Norwood. "It impacts the heart and the spirit. There is little public conversation about how being poor simply buries people."

A Brookings Institution study on stress, happiness and optimism points to the downstream consequences of such high rates of hopelessness and anger among those with limited resources: "The least optimistic cohort – uneducated, lower-income Whites – are adding to increasing mortality rates via true markers of desperation: suicide and addiction to prescription drugs."³⁰

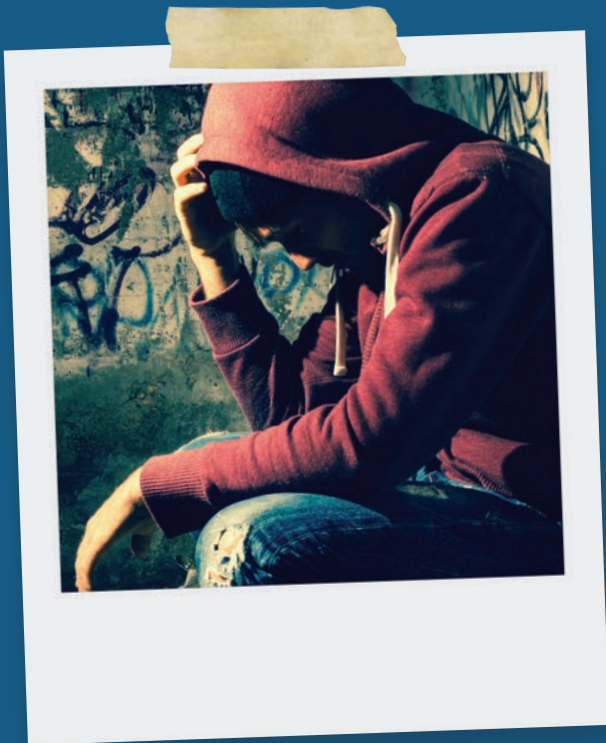
These "deaths of despair," a term coined by Princeton economists and researchers Anne Case and Angus Deaton, are reflected in regional data as well. In the Finger Lakes region, the death rate from overdoses is 87% higher in the low SES areas compared to high SES areas. The death rate among the low SES White population is particularly high – 59% higher than the rate for the combined Black

and Latino population in similarly low SES areas.

The regional data shows that across the socioeconomic spectrum, suicide rates are the highest among the White population. However, for both the White and Black populations, the rates are higher in low-SES areas compared to high-SES areas.³¹

"Poverty isn't just about being poor financially. It impacts the heart and the spirit. There is little public conversation about how being poor simply buries people."

— WADE S. NORWOOD, CEO, COMMON GROUND HEALTH



"People in low-income neighborhoods don't look up to doctors, we look up to the guy pulling up in the BMW with a good-looking woman and we see what he's doing and think, 'I'm going to try it.'"

— PAULY, FINGER LAKES RESIDENT
IN RECOVERY

Pauly sits with a cup of coffee in a Finger Lakes coffee shop on a beautiful spring day. He is 35, with close-cropped hair, brown eyes and a few tattoos showing from under his jacket.

He has just come from a substance abuse treatment session at Finger Lakes Area Counseling & Recovery Agency. He shares some of his diagnosis. "I have anxiety, PTSD, intermittent explosive disorder, and ADHD," he says, and explains further that he spent time at the Dick Van Dyke Addiction Treatment Center (ATC) in Ovid, N.Y. to get clean.

He grew up in Central New York in an economically-depressed neighborhood, but didn't consider his family as poor. "We had a house and there was always toast or water or spaghetti," he explains.

He had friends in the neighborhood with whom he spent all his time, as he had

relatively little supervision from his parents, who were "absent."

"I remember coming home at one in the morning for the first time when I was eight years old, and that was OK. I was safe because I was with older friends."

Although he says growing up marked "some of the best times of my life," he admits he skipped school and began stealing from local stores. His parents were together, though his father was an alcoholic and his mother struggled emotionally.

"All of the kids I hung out with, all of our fathers were alcoholics or on drugs. That was normal," he says.

"People in low-income neighborhoods don't look up to doctors, we look up to the guy pulling up in the BMW with a good-looking woman and we see what he's doing and think, 'I'm going to try it.'"

For his friends – and his family – "it" was drugs and alcohol. He began using as a teenager. "My brother died at 30 from drinking and taking painkillers, and even that didn't stop me," Pauly pauses at the memory. "I was almost as naïve as he was, and drank more to numb the pain."

"When you're hungry and you're dying for food, you drink and the hunger stops. You use and the hunger stops."

— GUY MORSE, PEER SUPPORT MANAGER, FINGER LAKES AREA COUNSELING & RECOVERY AGENCY

Self-medication - using illicit or prescription drugs to address emotional and mental health challenges without the guidance of a professional – is common among people dealing with significant stress, and is especially likely for people who experienced neglect, abuse or other major trauma when they were young. Before a child's brain is fully developed, Adverse Childhood Experiences (ACEs) actually damage the regions that are used to control impulses and make good decisions. Such trauma can make an individual more likely to abuse drugs and alcohol later in life.³²

In addition, self-medication can be considered an extreme form of self-reliance. Notably, the Dick Van Dyke ATC's website explains how its treatment "focuses on issues of hostility and

resentment toward authority and self-reliance to the neglect of support-seeking."

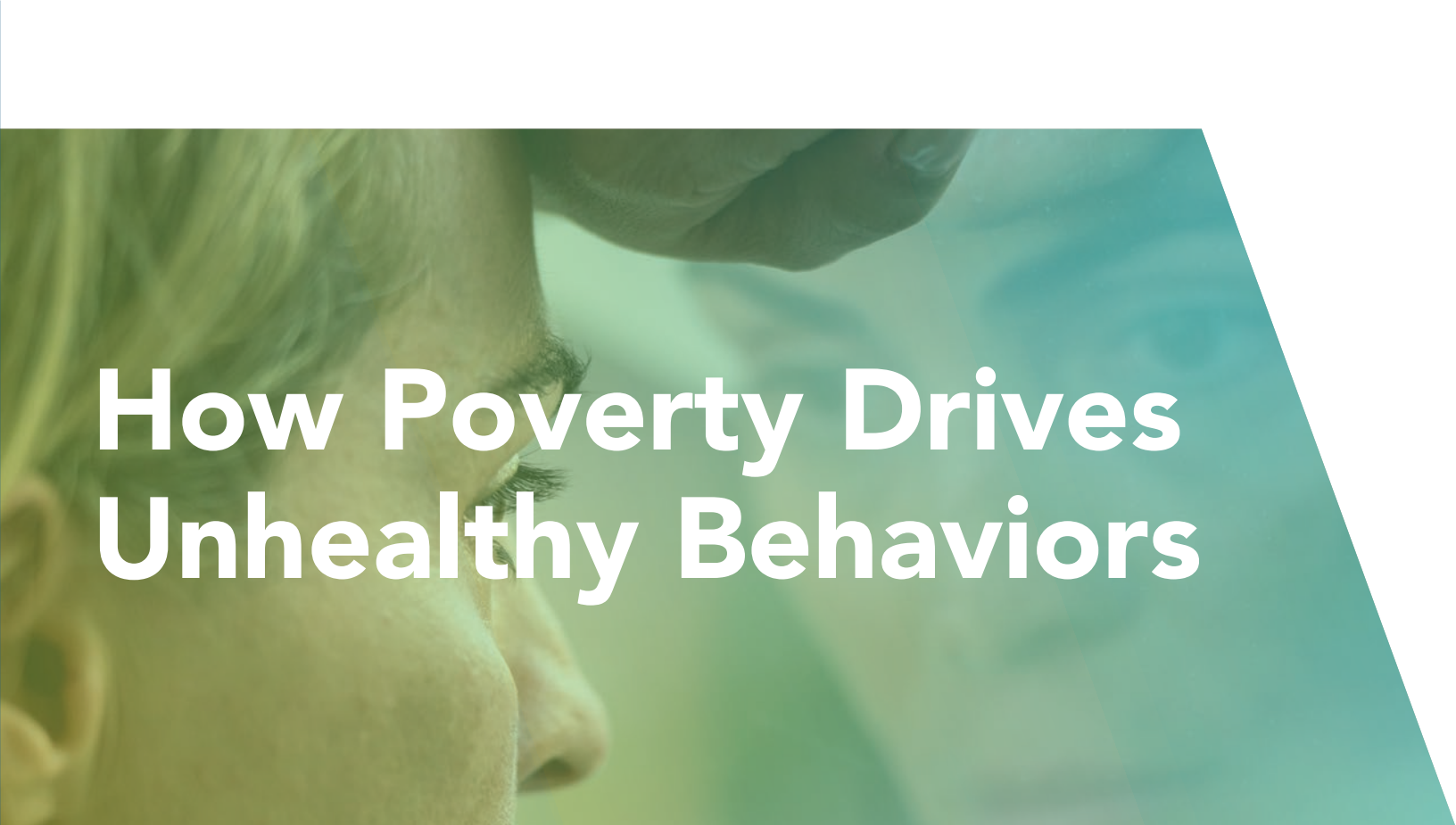
Drugs and alcohol soothe the stress and mental weight of being poor, and also appease some of the physical challenges of poverty. As Guy Morse, Pauly's peer support manager explains, "When you're hungry and you're dying for food, you drink and the hunger stops. You use and the hunger stops."

Today, Pauly is proud to be almost one year into his recovery, and credits the comprehensive approach Finger Lakes

Area Counseling & Recovery Agency delivers. In addition to addiction treatment, the program has provided stable housing and has taught him coping skills to help him handle stress.

"When you have nothing and get offered a program, they help you get off substances, they feed and house you, they point you in the right direction and help you help yourself," he says. "This isn't just about being clean, it's about mentally getting out of my own way."

"I'm reaching out to new guys, they see and hear how I came from nothing but I'm plugging away at the 12 Steps. I've been graced to have a bunch of God moments. Being sober helps you connect with the God moments, see them, and not be too inebriated not to recognize them."



How Poverty Drives Unhealthy Behaviors



People who face the cognitive overload and toxic stress of poverty are more likely to engage in risky and unhealthy behaviors. They understand the potential health ramifications of these choices, but sometimes turn to coping mechanisms which can provide at least temporary relief from the strain of everyday life. Taken in this context, these behaviors can be understood as a natural response to the overwhelming realities of poverty.

It is striking that despite a great reduction in the prevalence of smoking over the past few decades, 36% of adults in the Finger Lakes region with household incomes under \$20,000 smoke regularly. This is dramatically higher than the 10% smoking rate among those in high income households (\$75,000 and above).³³ When asked why they smoke, low income residents showed a clear pattern of need for stress relief:³⁴

- "Smoking is coping for me." (White woman; Nunda, Livingston County)
- "I am stressed and smoke as a way to calm down." (Black man; Greece, Monroe County)
- "I smoke more the more stress I am feeling. It gives me a few minutes to think and calm myself before dealing with things." (White woman; Alpine, Schuyler County)

"I smoke. It's expensive. It's also the best option. You see, I am always, always exhausted. It's a stimulant. When I am too tired to walk one more step, I can smoke and go for another hour. When I am enraged and beaten down and incapable of accomplishing one more thing, I can smoke and I feel a little better, just for a minute. It is the only relaxation I am allowed. It is not a good decision, but it is the only one that I have access to. It is the only thing I have found that keeps me from collapsing or exploding...

"Poverty is bleak and cuts off your long-term brain... It does not matter what will happen in a month. Whatever happens in a month is probably going to be just about as indifferent as whatever happened today or last week. None of it matters. We don't plan long-term because if we do we'll just get our hearts broken. It's best not to hope. You just take what you can get as you spot it."

— LINDA TIRADO, *HAND TO MOUTH: LIVING IN BOOTSTRAP AMERICA*

- "Stress, pain, caring about my problems, help." (White man; Montour Falls, Schuyler County)
- "I believe my stress is what keeps me smoking." (Latina woman; Rochester, Monroe County)

Addictions counselor Guy Morse affirms this idea that short-term, survivalist thinking drives a reliance on drugs and alcohol. "Addiction itself wants a quick fix. The challenge is encouraging healthier coping skills."

"Fear and desperation not only bring people to addiction, but they are ultimately what bring folks to recovery," he says. "And if these fears are more prevalent in lower-economic families, it's because they're already starting there."

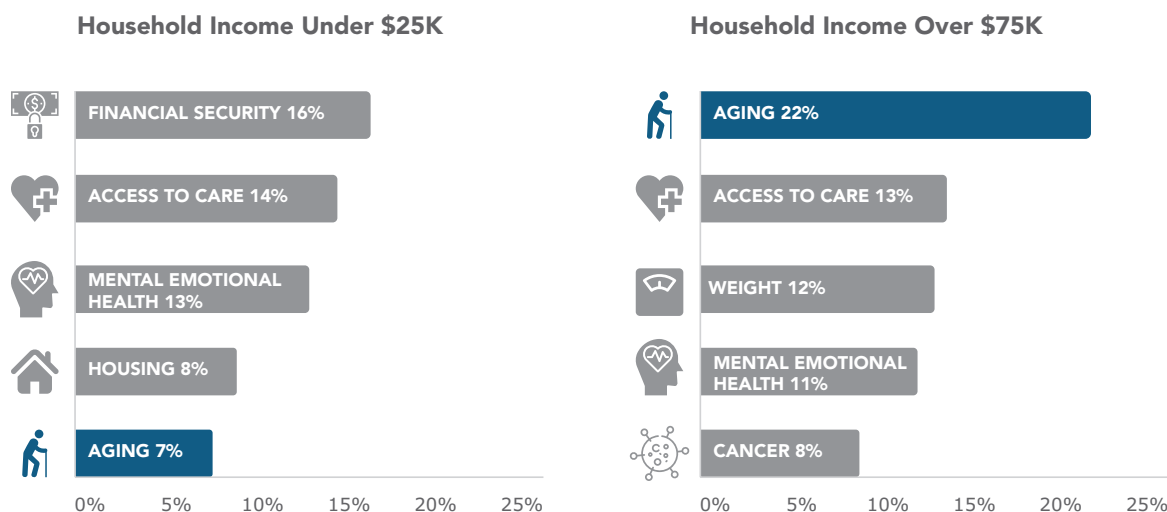
Research also suggests that the day-to-day demands of living with inadequate

resources overshadows longer-term concerns. As Christine Wagner, Special Advisor at the St. Joseph's Neighborhood Center, notes, "It's habits you gain from your elders. You scrimp by the best you can and there's no opportunity to budget. Basically, your world view is very short-term: today is Monday, how am I going to feed my kids on Friday. Life is short-term focused."

Regional survey data illustrates how this mindset translates to health. Residents were asked to identify their biggest concern about their own health and well-being. Among high-income 50- to 65-year old residents, the top concern was the impact of aging on their health. However, among residents with the lowest household incomes (under \$25,000 per year) in the same age cohort, aging ranked below more immediate basic concerns like financial security and housing.³⁵

Longer-term Concerns Like Aging Are Eclipsed by More Immediate Needs of Lower-income Population

Biggest Concern About One's Own Health & Wellbeing



Source: My Health Story survey 2018; Analysis by Common Ground Health incorporates weighting to reflect demographics of Finger Lakes region

Even when people want to make healthier choices for the long-term, the conditions of poverty conspire to make such goals very difficult. Common Ground Health's *My Health Story* survey showed that people with low

times as likely to say their eating habits were fair or poor. Why? More than 60% said that buying healthy food is too expensive, and 35% indicated that transportation to buy healthy food is always or often a difficult challenge.³⁶

36% of adults in the Finger Lakes region with household incomes under \$20,000 smoke regularly.

household incomes (under \$25,000) were as likely as those with highest incomes (over \$75,000) to say that eating healthy was important to them. But when asked to describe their actual eating habits, lower-income respondents were more than 2.5

available to them." Many of the patients she works with shop at convenience stores that lack fresh fruits and vegetables, "because that's where they can get to, and what they can afford."

As Jordan Health Center's Andrea Clarke says, "People have a hard time eating properly, but they're trying to make the best choices with the options

Limited Access to Care



In Common Ground Health's 2018 *My Health Story* survey, 28% of Finger Lakes residents with income under \$25,000 did not get needed medical care at some point in the prior 12 months, compared with only 8% of people with incomes of \$75,000 or higher.³⁷

And insurance doesn't solve the problem of access. Even among the low-income population that has health insurance, 27% didn't get needed care.

"When we talk about access, this is where people can lose a little perspective on the complexity of people's lives," said Natalie Whaley, MD, MPH, with UR Medicine's department of obstetrics and gynecology. "Access isn't just about insurance coverage. You're talking about a patient population that doesn't have a car and who doesn't send their kids to day care, so they have to take all their

kids on the bus with them to the visit. Or they work full-time in a fast-food restaurant or another environment where they don't get a day off to go to the doctor. They have to choose to make less money that week because they had to cancel shifts to go to the doctor. If you're living paycheck to paycheck, you're not going to make that decision. It's hard to really envision the reality of not having the ability to go to the dentist or the doctor because of these life circumstances."

"Most poor people pick the provider they can get to," Finger Lakes Area Counseling and

Recovery Agency's Guy Morse says. "Not necessarily the best for their specific situation, just the closest."

"And keeping a provider turns out to be as difficult as finding one," he continues.

"With some doctors, if a person misses an appointment, they aren't able to get another one for a month. And sometimes, if they miss two appointments, they just get dropped and have to find a new provider."

People who struggle financially often find themselves unable to meet what may be perceived as basic expectations of the fast-moving and fault-intolerant business of health care.

"I call it 'pass the buck health care,'" Jordan Health's Andrea Clarke says. "We end up leaving patients out in the cold. Patients feel mistreated, get frustrated, then don't follow directions or just don't come in. Then they end up worse off and needing more help."

Sr. Christine Wagner agrees, "This isn't all on the patient, it's on the health care community. There is a lack of a comprehensive approach and communication to address all the services that are needed."

When people don't (or can't) work within the structure of the system, they miss the outcomes that the health care system is designed to create: longer and healthier lives. In the Finger Lakes, this reality translates to a significant increase in health care emergencies – many preventable – among the poor.

In the Finger Lakes, residents of poor communities are 4.6 times more likely to end up in the hospital, experience more than 10 times the rate of preventable dental emergencies, visit the emergency department 9.7 times more often, and end up being admitted for preventable issues related to diabetes 5.8 times more often.³⁸

"People may or may not have health insurance," Sr. Wagner says. "But physical and mental health conditions go unattended because people can't afford to do anything until they end up in our ER. They are so normalized to not getting help, not being taken seriously, even if there's a place to help them they don't believe it until they get desperate."

"People give themselves short shrift because that's what they've always had."

"I call it 'pass the buck health care.' We end up leaving patients out in the cold. Patients feel mistreated, get frustrated, then don't follow directions or just don't come in. Then they end up worse off and needing more help."

— ANDREA CLARK, COMMUNITY HEALTH ADVOCATE,
ANTHONY JORDAN HEALTH CENTER

Premature Birth



The number-one cause of infant mortality in Monroe County is premature birth, which is significantly more common among expectant mothers in the region's poorest communities.³⁹

Preterm birth rate is an important health indicator not only because premature birth is predictive of a wide range of risks to the child's immediate and long-term health, but also because it is a reflection of the health challenges faced by the mother.

"[Low income mothers'] lives are complicated in ways that are hard to enumerate," says UR Medicine's Natalie Whaley, MD, MPH. "They have all of these other competing demands.

When we see these women, even if we see them for their whole pregnancy, we only get to see the outside layer. Who knows what else is going on."

There are many factors that contribute to the higher risk of premature birth, including the mother's mental and physical health, access to early and regular prenatal care, unplanned pregnancy, teen pregnancy, and use of cigarettes, alcohol and drugs. And all these

Premature Birth Rates Are Much Higher for Mothers in Areas with Low Socioeconomic Status

% of Births Delivered Preterm



Source: New York State Vital Statistics Data; ZIP-level analysis by Common Ground Health. Finger Lakes region 2012-2014. Premature birth = prior to 37 weeks gestation.

factors are more prevalent among the low-income population.

A regional analysis of the impact of depression and anxiety shows that mothers on Medicaid are more likely to be diagnosed with these mental health conditions, and those conditions are more likely to have a larger impact on their likelihood to deliver before full-term. Women on Medicaid are 48% more likely to be diagnosed with depression or anxiety in the two years prior to delivery than women with commercial insurance. Additionally, the data shows that the increased risk of preterm birth related to those mental health conditions is larger for the Medicaid cohort. Among women on Medicaid, those diagnosed with depression or anxiety had a 44% higher likelihood of delivering preterm, compared to only a 27% increased likelihood when those conditions were present in commercially insured women.⁴⁰

The reason for this larger impact may be the confluence of multiple risk factors.

“There’s a real lack of access to mental health services and therapy to lower-income women in general and pregnant women in particular,”

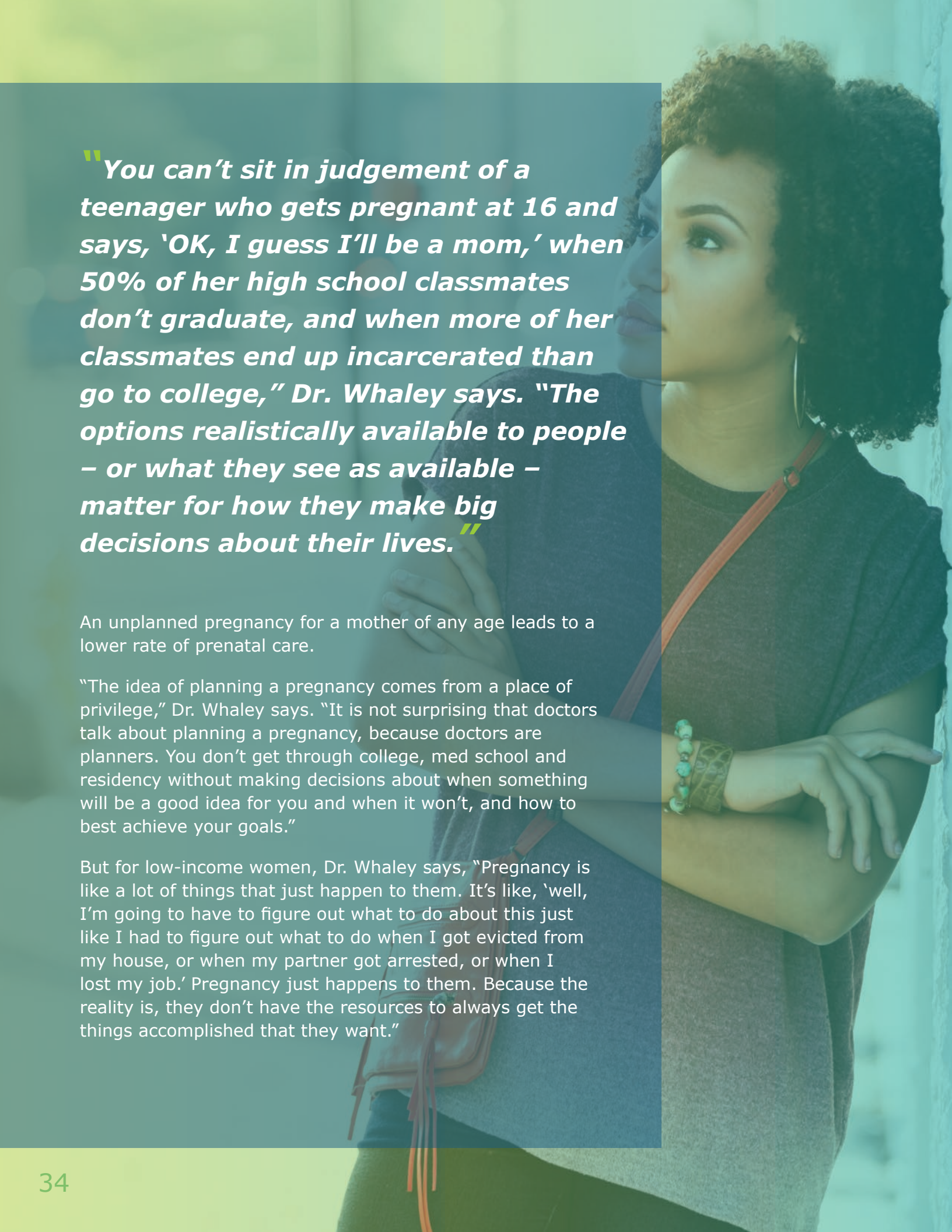
says Dr. Whaley. “If they have a primary care doctor managing their depression, anxiety or mood disorder, when they conceive a pregnancy the provider says, ‘I don’t feel comfortable continuing you on these medications.’ Then they’re sort of stranded without the medications that have kept them stable.”

Monroe County data show a significant disparity in the rates of access to prenatal care. Within the ZIP codes of Rochester with particularly high rates of poverty, 69% of mothers entered into prenatal care within the first three months of pregnancy. This is much lower than the 86% of mothers in the areas of the county outside of the city. Again, a confluence of factors helps to explain this disparity.⁴¹

While teen pregnancy rates have fallen significantly in the prior 10 years, in 2015 the rate in urban low-income ZIP codes in Rochester was nearly 10 times the rate in the suburbs. And only 56% of those teen mothers accessed prenatal care within the first three months.⁴²

Among women on Medicaid, those diagnosed with depression or anxiety had a 44% higher likelihood of delivering preterm, compared to only a 27% increased likelihood when those conditions were present in commercially insured women.





"You can't sit in judgement of a teenager who gets pregnant at 16 and says, 'OK, I guess I'll be a mom,' when 50% of her high school classmates don't graduate, and when more of her classmates end up incarcerated than go to college," Dr. Whaley says. "The options realistically available to people – or what they see as available – matter for how they make big decisions about their lives."

An unplanned pregnancy for a mother of any age leads to a lower rate of prenatal care.

"The idea of planning a pregnancy comes from a place of privilege," Dr. Whaley says. "It is not surprising that doctors talk about planning a pregnancy, because doctors are planners. You don't get through college, med school and residency without making decisions about when something will be a good idea for you and when it won't, and how to best achieve your goals."

But for low-income women, Dr. Whaley says, "Pregnancy is like a lot of things that just happen to them. It's like, 'well, I'm going to have to figure out what to do about this just like I had to figure out what to do when I got evicted from my house, or when my partner got arrested, or when I lost my job.' Pregnancy just happens to them. Because the reality is, they don't have the resources to always get the things accomplished that they want."



Place Matters



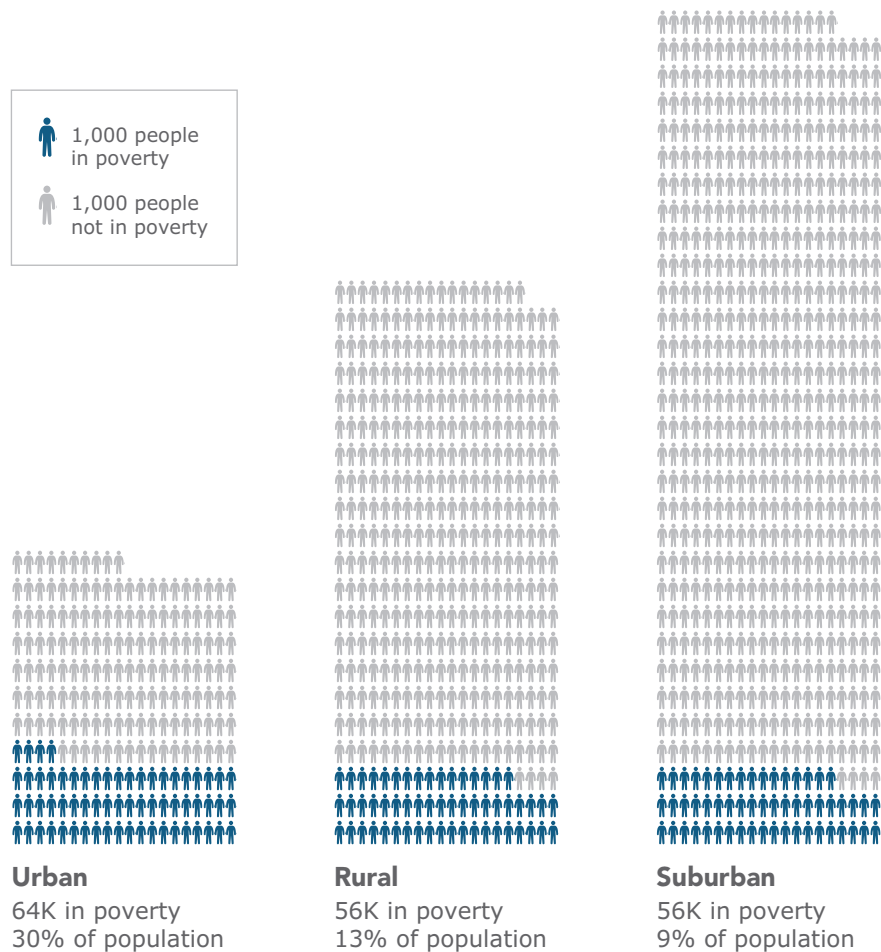
Within the Finger Lakes region, similar numbers of people in poverty live in urban, rural and suburban communities. However, the concentration of poverty is higher in rural and especially urban areas.⁴³

Exacerbating this higher concentration of poverty, residents in urban and rural communities face distinct obstacles and conditions that further complicate the health challenges they face.

In urban neighborhoods, a higher concentration of tobacco outlets, liquor stores, fast food restaurants and convenience shops makes unhealthy behaviors an easy choice. For example, an analysis of tobacco vendor locations across the Finger Lakes region showed that the number of tobacco vendors per capita in urban areas is more than double (2.3 times) the concentration in the suburbs.⁴⁴

An abundance of corner stores and fast food outlets combined with comparatively few full-service grocery stores creates “food swamps,” where unhealthy food is much more accessible than healthy options. A 2017 study by the Rudd Center for Food Policy and Obesity determined that living in a “food swamp” is a stronger predictor of obesity than living in a “food desert,” which is defined solely by limited access to fresh produce and other nutritious foods.⁴⁵

Similar Numbers of People in Poverty Are Living in Our Region's Urban, Rural and Suburban Areas



Source: US Census Bureau; American Community Survey, 2017 American Community Survey 5-Year Estimates, Table S1701.

Additionally, some city residents' reliance on public transportation can make it more difficult and much more time-consuming to access healthy food and medical care. Transportation challenges were the second-most common reason that urban residents did not get needed medical care, according to the *My Health Story* survey.⁴⁶

High rates of violent crime are a significant public health issue in some urban areas including Rochester. The direct effects are measurable in injuries from assault and in

deaths from homicide – the third largest cause of urban premature death in the Finger Lakes region.⁴⁷ The indirect effect of urban residents avoiding outdoor physical activity because their neighborhood is unsafe is also real. This is a particular problem for children, since outdoor play is important for their physical, social-emotional and cognitive health.

All things considered, data consistently confirm that health outcomes are significantly worse for urban residents than for those living

in rural and suburban areas. However, rural communities also have distinct challenges that exacerbate health outcomes.

One key challenge in many rural areas is the limited availability of doctors and health care facilities. Most rural parts of the Finger Lakes region are designated as Health Professional Shortage Areas for both primary care and mental health by the Health Resources and Services Administration.⁴⁸ And specialists are even less likely to be found outside the more populated cities. Indeed, recent survey data shows that among people who went without needed medical care in the prior year, those in rural areas were far more likely to say the reason was, “I couldn’t get an appointment for a long time.”⁴⁹

Even when provider appointments are available, the medical facilities may not be located conveniently nearby and public transportation is typically unavailable in



other. The risk of running into friends, family members and neighbors on the way to drug treatment or HIV testing can keep rural residents from actively managing their health concerns. Likewise, patients in smaller communities may be discouraged from attending to mental health, substance abuse, sexual health, pregnancy and even chronic illnesses due to personal relationships with health care providers and others working in those facilities.⁵⁰

An abundance of corner stores and fast food outlets combined with comparatively few full-service grocery stores creates “food swamps”.

rural communities. This combination leaves residents not only needing reliable transportation, but also requiring significant time off from work to make it to medical appointments. Those with chronic conditions that require multiple health care visits often find this challenge insurmountable.

In addition, stigma is a significant barrier discouraging rural residents from seeking care. Although individuals in rural areas may be dispersed, there is little anonymity. Ensuring privacy around sensitive medical issues is difficult when everyone knows each

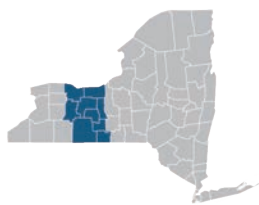
Similar to the limited availability of nearby medical care, some rural areas lack convenient options for fresh produce and other nutritious food. The time and fuel cost to access grocery stores and food pantries can be prohibitive for those who are

food-insecure in rural areas. The proliferation of dollar stores has compounded the problem, by making less healthy food more easily and cheaply available, and making it harder for grocery stores to generate enough business to stay open.

It is striking that while some geographically specific challenges are distinct, low income populations in both urban and rural areas face similar results – less access to the resources needed to stay healthy.



A Springboard to Action



The number-one health concern in the Finger Lakes region is poverty. Through primary data, secondary research and first-person accounts, this report demonstrates an undeniable truth: to improve health in the Finger Lakes, we must address the ways poverty undermines health and well-being.

Moving forward requires that we come together as a community to untangle the web of structural barriers to wellness, and eventually, eliminate the influence that poverty has on health outcomes for everyone living in our region.

The complexity of this task requires unparalleled collaboration across professions, backgrounds, geographies and perspectives. The causes of health disparities are deeply rooted in complex and longstanding issues including the physical and policy structures we've built as a community and as a country. So it should be no surprise that most

of the changes needed to weave health into the fabric of our lives lie outside of the health care system.

Community wide responses to address the social determinants of health are not beyond our grasp. Our region has a proud history of focusing on population health, with an unusually strong tradition of collaboration across the health care ecosystem.

In recent decades, community coalitions have also achieved significant public health victories by working together to tackle problems from many angles. From 2000-

***"Social policy is health policy.
Economic policy is health policy.
Education policy is health policy."***

— DAVID WILLIAMS, CHAIR, DEPARTMENT OF SOCIAL AND BEHAVIORAL SCIENCES,
HARVARD T.H. CHAN SCHOOL OF PUBLIC HEALTH

2016, the nationally recognized Coalition to Prevent Lead Poisoning helped reduce Rochester's alarmingly high rates of lead poisoning among school children by 85%.⁵¹ And in less than ten years, the High Blood Pressure Collaborative leveraged a combination of clinical and community-based initiatives to reduce the rate of adults with dangerously high blood pressure by 41% across the Finger Lakes region. This region consistently proves its ability to successfully address difficult health issues.⁵²

Alongside these health-oriented initiatives, increased attention and efforts have been dedicated to addressing the high rates of poverty in the region. In 2015, the Finger Lakes region began to dive deep into the issue of poverty with the formation of

the Rochester-Monroe Anti-Poverty Initiative (RMAPI). A year later, New York State launched the broader Empire State Poverty Reduction Initiative (ESPRI), to encourage RMAPI-modeled activities in 15 other cities across New York including Elmira.

***"As much as we all talk about poverty,
as much as we all talk about health,
we've kept them completely apart."***

— WADE S. NORWOOD, CEO, COMMON GROUND HEALTH

While such initiatives around population health and poverty are important, now is the time to bring these conversations together. Poverty is a major driver of health, and poor health – both physical and mental – is a large contributor to poverty.

As Wade Norwood, Common Ground's chief executive officer, points out, "As much as we all talk about poverty, as much as we all talk about health, we've kept them completely apart."

These issues do not exist in isolation. To truly achieve equity for all people living in our community, we cannot pretend that poverty has no impact on health. We can also no longer ignore that health impacts a person's ability to move beyond poverty. These interlinked issues require a new approach, one guided by our community's history in collaboration and grounded in the reality of the data and stories in this report.

A century ago, George Eastman harnessed the power of the Eastman Kodak Company to improve community health by investing in transformative initiatives. Asked why he underwrote dental clinics, the astute entrepreneur pointed to the connection between health and opportunity: "I get more results for my money than in any other philanthropic scheme. It is a medical fact that children can have a better chance in life with better looks, better health and more vigor if the teeth, nose, throat and mouth are taken proper care of at the crucial time of childhood."⁵³

Fifty years later, Kodak leadership brought this community's decision makers together to plan for health care needs and ensure that all residents would have access to affordable, quality care. Today, that legacy of community collaboration has resulted in some of the highest quality, lowest cost health care in the country.⁵⁴

But as this report has documented, not all residents benefit fully from our laudable resources. To achieve true equity in health outcomes, our commitment to working

together must be renewed and expanded beyond the health care system. The solutions to improved health demand that our community work in new ways, with new partners and meaningful engagement of community members.

We can build on Eastman's understanding of the value of community health. Although we no longer rely on a single company to drive health improvement in our region, we can accomplish even more today by bringing all sectors together—education, government, health care, faith institutions, business and others.

A long, healthy and happier life is possible in our region, because this is the life that affluent populations already enjoy. Our challenge is to make this opportunity accessible to all residents.

***Our region's children deserve
no matter what neighborhood
By working together, we can***

A man and a young child are walking away from the camera on a paved path that curves through a lush, green wooded area. The man, on the left, is wearing a dark polo shirt with light-colored horizontal stripes, khaki shorts, and a tan baseball cap with a "Titleist" logo. He is holding the hand of a young child on the right. The child is wearing a blue tank top, red shorts, and dark sandals. The path is bordered by a metal guardrail on the left and dense foliage on the right. The scene is bathed in soft, natural light, suggesting a sunny day. A semi-transparent dark blue banner is overlaid across the middle of the image, containing white text.

*ve an equal opportunity to enjoy a long and healthy life
ood they are raised in or their parents' finances.
n ensure they do.*

Photo by Amanda Rappleye, courtesy of Schuyler County Public Health.

Notes

* The regional economic cost of health inequities was estimated using the framework published in the 2009 report, *The Economic Burden of Health Inequalities in the United States*.⁵⁵ The same methodology was used to develop an updated national analysis published in 2018, *The Business Case for Racial Equity*.⁵⁶ The framework considers three components of economic cost: direct medical costs of health inequalities; lower worker productivity due to illness; and costs of premature deaths. These analyses were focused on racial inequities at a national level. Common Ground Health adapted the framework and analyses to develop a regional cost estimate that reflects the economic burden of both socioeconomic and racial health inequities.

† Years of Potential Life Lost (YPLL) is a widely used measure to assess the rate of premature mortality. YPLL places a larger weight on the deaths of younger people, in contrast with overall mortality statistics which are dominated by deaths of the elderly. The YPLL rates in Common Ground Health's analyses are derived using 75 years of age as the baseline. Therefore, a death at age 65 has a YPLL of 10, whereas a death at age 35 has a YPLL of 40. Rates are calculated per 100,000 population, and are age- and sex-adjusted to account for differences in population distribution.

‡ The Socioeconomic Status (SES) index ranking was developed by Common Ground Health and calculated using a variety of socioeconomic indicators from the American Community Survey including average income, poverty rates, education levels, housing value, and homeownership. Each ZIP code is assigned an SES index ranking from 1 to 5. The lower SES ZIP codes tend to have lower average income, higher poverty rates, lower prevalence of college degrees, etc.

§ Common Ground Health is continuing its work in partnership with the African American Health Coalition and Latino Health Coalition to understand and address racial and ethnic health inequities in the Finger Lakes region. Updated versions of their respective health disparity reports *What's Goin' On?* and *Nuestra Salud* – will be published in 2020.

^ Though often quoted as "Of all forms of inequity, injustice in health is the most shocking and inhumane," contemporaneous accounts report Dr. King using the word inhuman. For more details, see: <https://quoteinvestigator.com/2015/10/22/mlk-health/#note-12311-8>.

Sources

¹NYSDOH Vital Statistics 2013-2015 except opioid overdose data for 2017 from New York State County Opioid Quarterly Report, October 2018, NYSDOH. Age-sex adjusted analysis by Common Ground Health. Excess mortality calculated based on difference between each population's actual age-sex adjusted rate of mortality and the baseline rate (White SES 4-5 population).

²*My Health Story* survey 2018. Analysis by Common Ground Health. Excess diabetes cases calculated based on difference between each population's actual prevalence rate of diabetes and the baseline rate (White SES 4-5 population).

³Poverty data: US Census Bureau; American Community Survey, 2017 American Community Survey 5-Year Estimates, Table S1701. Life Expectancy data: Arias E, Escobedo LA, Kennedy J, Fu C, Cisewski J. U.S. small-area life expectancy estimates project: Methodology and results summary. National Center for Health Statistics. Vital Health Stat 2(181). 2018. Analysis by Common Ground Health.

⁴US Census Bureau; American Community Survey, 2017 American Community Survey 5-Year Estimates, Table S1701. Analysis by Common Ground Health.

⁵NYSDOH Statewide Planning and Research Cooperative System Outpatient dataset 2014-2016. Age-sex adjusted analysis by Common Ground Health. Excess ED charges calculated based on difference between each population's actual age-sex adjusted ED charge rate and the baseline rate (White SES 4-5 population).

⁶NYSDOH Vital Statistics 2013-2015. Age-sex adjusted analysis by Common Ground Health.

⁷NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016. Analysis by Common Ground Health.

⁸*My Health Story* survey 2018. Analysis by Common Ground Health.

⁹*My Health Story* survey 2018. Analysis by Common Ground Health.

¹⁰Housing code violation data: City of Rochester Certificate of Occupancy records 2008-2013. ED visit data: NYSDOH Statewide Planning and Research Cooperative System Outpatient dataset. Analysis by Common Ground Health.

¹¹*My Health Story* survey 2018. Analysis by Common Ground Health.

¹²Herbert CE, McCue DT, Sanchez-Moyano R. Is Homeownership Still an Effective Means of Building Wealth for Low-income and Minority Households? (Was it Ever?). Harvard University, Joint Center for Housing Studies. 2013 Sept.

¹³A.G. Schneiderman Secures Agreement With Five Star Bank To End Racially Discriminatory Mortgage Lending Practices In Rochester. Retrieved from <https://ag.ny.gov/press-release/ag-schneiderman-secures-agreement-five-star-bank-end-racially-discriminatory-mortgage>.

¹⁴Governor Cuomo and Legislative Leaders Announce FY 2020 Enacted Budget Includes Measure Prohibiting Discrimination Against Tenants Based on Source of Income. New York State. 2019 Apr 26. Retrieved from <https://www.governor.ny.gov/news/governor-cuomo-and-legislative-leaders-announce-fy-2020-enacted-budget-includes-measure>.

¹⁵US Census Bureau; American Community Survey, 2017 American Community Survey 5-Year Estimates, Table S1701. Analysis by Common Ground Health.

¹⁶Pager D, Shepherd H. The Sociology of Discrimination: Racial Discrimination in Employment, Housing, Credit, and Consumer Markets. *Annu Rev Sociol.* 2008; 34:181-209.

¹⁷Chetty R, Hendren N, Jones MR, Porter SR. Race and Economic Opportunity in the United States: An Intergenerational Perspective. National Bureau of Economic Research. Working paper no. 24441. 2018 March.

¹⁸Duru OK, Harawa NT, Kermah D, Norris KC. Allostatic Load Burden and Racial Disparities in Mortality. *J Natl Med Assoc.* 2012 Jan-Feb; 104 (1-2):89-95.

¹⁹Geronimus A, Hicken M, Keene D, Bound J. “Weathering” and Age Patterns of Allostatic Load Scores Among Blacks and Whites in the United States. *Am J Public Health.* 2006 May; 96(5): 826–833.

²⁰*Discrimination, Race and Health: An Expose on the Social Climate in Rochester, New York 2013.* Dr. Amina Alio in partnership with the African American Coalition.

²¹NYSDOH Vital Statistics 2014-2016. Age-sex adjusted analysis by Common Ground Health.

²²NYSDOH Vital Statistics 2014-2016. Age-sex adjusted analysis by Common Ground Health.

²³Mani A, Mullainathan S, Shafir E, Zhao J. Poverty Impedes Cognitive Function. *Science.* 2013 Aug 30; 341(6149): 976-980.

²⁴Mani A, Mullainathan S, Shafir E, Zhao J. Poverty Impedes Cognitive Function. *Science.* 2013 Aug 30; 341(6149): 976-980.

²⁵Fact Sheet: Health Disparities and Stress. American Psychological Association. Retrieved from <https://www.apa.org/topics/health-disparities/fact-sheet-stress>.

²⁶Hughes, K., Bellis, M., et.al. The effect of multiple adverse childhood experiences on health: a

systematic review and meta-analysis. *Lancet Public Health.* 2017 Aug; 2(8): e356-e366.

²⁷McEwen, C., McEwen, B. Social Structure, Adversity, Toxic Stress, and Intergenerational Poverty: An Early Childhood Model. *Annu Rev Sociol.* 2017; 43: 445-472.

²⁸Nurius P, Green S, Logan-Greene P, Borja S. Life Course Pathways of Adverse Childhood Experiences Toward Adult Psychological Well-Being: A Stress Process Analysis. *Child Abuse Negl.* 2015 July; 45: 143–153.

²⁹*My Health Story survey* 2018. Analysis by Common Ground Health.

³⁰Graham C. The rich even have a better kind of stress than the poor. The Brookings Institution. 2016 Feb 10. Retrieved from <https://www.brookings.edu/research/the-rich-even-have-a-better-kind-of-stress-than-the-poor>.

³¹New York State Department of Health Vital Statistics 2010-2015; analysis by Common Ground Health.

³²Are you self-medicating? American Addiction Centers. 2019 Jul 22. Retrieved from <https://americanaddictioncenters.org/adult-addiction-treatment-programs/self-medicating>.

³³NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health.

³⁴*My Health Story survey* 2018. Analysis by Common Ground Health.

³⁵*My Health Story survey* 2018. Analysis by Common Ground Health.

³⁶*My Health Story survey* 2018. Analysis by Common Ground Health.

³⁷*My Health Story survey* 2018. Analysis by Common Ground Health.

³⁸NYSDOH Statewide Planning and Research Cooperative System Outpatient dataset 2014-2016. Age-sex adjusted analysis by Common Ground Health.

³⁹NYSDOH Vital Statistics 2012-2014. ZIP-level analysis by Common Ground Health.

⁴⁰Common Ground Health Multi-Payer Claims database. Analysis of single live-births from October 2015 – December 2016 by Common Ground Health.

⁴¹NYSDOH Vital Statistics 2013-2015. Analysis by the Monroe County Department of Public Health and Common Ground Health.

⁴²NYSDOH Vital Statistics 2015. Analysis by the Monroe County Department of Public Health and Common Ground Health.

⁴³US Census Bureau; American Community Survey, 2017 American Community Survey 5-Year Estimates, Table S1701. Analysis by Common Ground Health.

⁴⁴Active Retail Tobacco Vendors. Health Data NY. Data retrieved from <https://health.data.ny.gov/Health/Active-Retail-Tobacco-Vendors/9ma3-vsuk/> data on 3/30/2018. Analysis by Common Ground Health.

⁴⁵Cooksey-Stowers K, Schwartz MB, Brownell KD. Food swamps predict obesity rates better than food deserts in the United States. *Int. J. Environ. Res. Public Health*. 2017 Nov 14. 14(11):1366.

⁴⁶*My Health Story* survey 2018. Analysis by Common Ground Health.

⁴⁷NYSDOH Vital Statistics 2013-2015. Age-sex adjusted analysis by Common Ground Health.

⁴⁸Health Professional Shortage Areas. Health Resources and Services Administration Bureau of Health Workforce. HPSA Find online tool accessed on February 2, 2018.

⁴⁹*My Health Story* survey 2018. Analysis by Common Ground Health.

⁵⁰Healthcare access in rural communities. Rural Health Information Hub. Retrieved from <https://www.ruralhealthinfo.org/topics/healthcare-access>.

⁵¹Riley D. County lead poisoning diagnoses down 85 percent. *Democrat & Chronicle*. 2015 June 18. Retrieved from <https://www.democratandchronicle.com/story/news/2015/06/18/rochester-monroe-county-childhood-lead-poisoning-coalition-diagnoses-drop-decade/28930353/>.

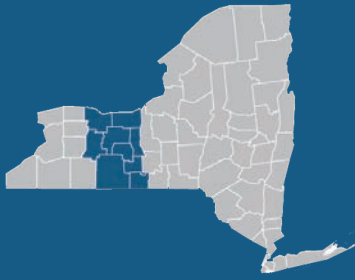
⁵²High Blood Pressure Collaborative Registry data. Analysis by Common Ground Health.

⁵³George Eastman. Kodak. Retrieved from <https://www.kodak.com/corp/aboutus/heritage/georgeeastman/default.htm>.

⁵⁴The Experts Were Wrong About the Best Places for Better and Cheaper Health Care. *New York Times*. 2015 Dec. 15. Retrieved from <https://www.nytimes.com/interactive/2015/12/15/upshot/the-best-places-for-better-cheaper-health-care-arent-what-experts-thought.html?searchResultPosition=2>.

⁵⁵LaViest TA, Gaskin DJ, Richard P. The Economic Burden of Health Inequalities in the United States. Joint Center for Political and Economic Studies. 2009 Sept.

⁵⁶Turner A. The Business Case for Racial Equity: A Strategy for Growth. W.K.Kellogg Foundation. 2018.



About Common Ground Health

Founded in 1974, Common Ground Health is the health planning organization for the nine-county Finger Lakes region. We bring together health care, education, business, government and other sectors to find common ground on health issues. Learn more about our community tables, our data resources and our work improving population health at www.CommonGroundHealth.org.



1150 University Avenue
Rochester NY 14607
585.224.3101
www.CommonGroundHealth.org