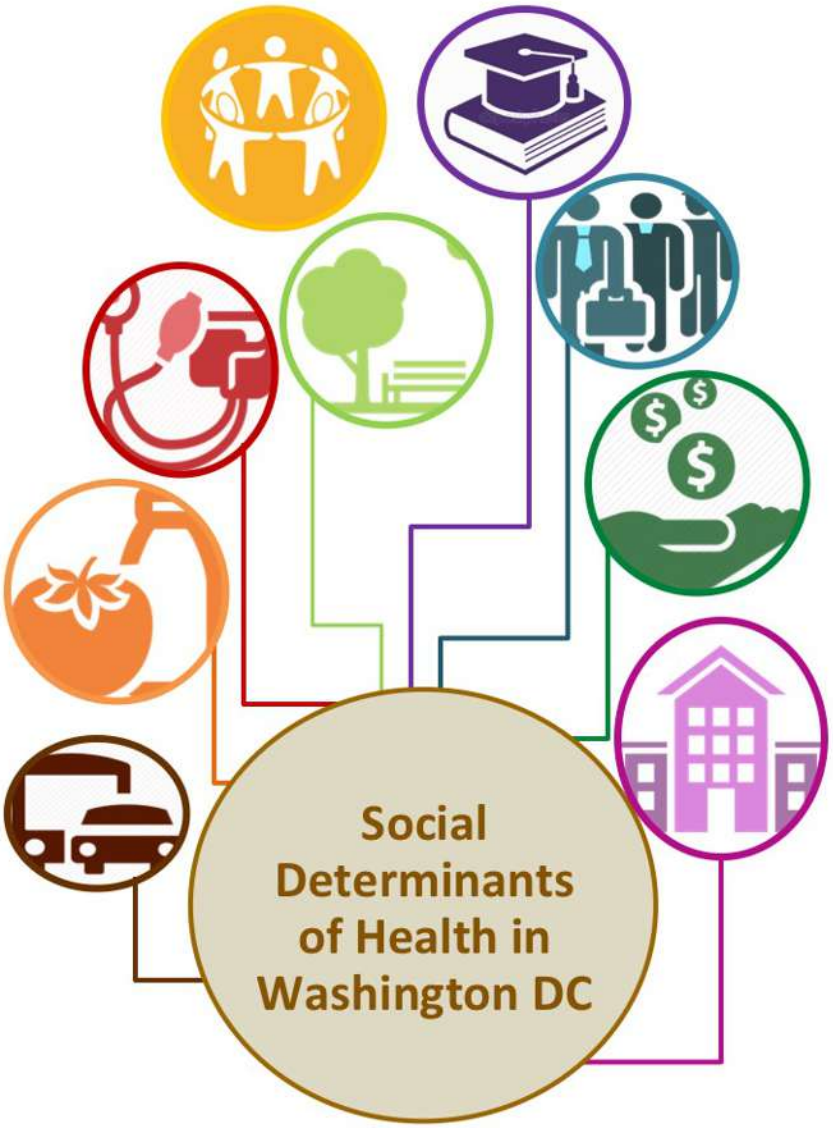
Health Equity Summary Report:
District of Columbia 2018



The Social & Structural Determinants of Health

Office of Health Equity, District of Columbia, Department of Health

DC HEALTH GOVERNMENT OF THE DISTRICT OF COLUMBIA MURIEL BOWSER, MAYOR

DC | HEALTH

GOVERNMENT OF THE DISTRICT OF COLUMBIA
MURIEL BOWSER, MAYOR

Government of the District of Columbia
Department of Health
Office of the Director

Dear Residents and Partners,

I am pleased to share with you the inaugural Health Equity Report for the District of Columbia 2018. This report provides a baseline assessment of the social and structural determinants of health in the District, and is intended to inform and reframe the discussion of how to improve the health and wellbeing of our residents beyond the traditional limits of access to healthcare and insurance. We will use this report as the starting point for new conversations and strategic actions that aim to engage a broad spectrum of residents, neighborhoods and partners from government and the private sector that represent the whole community, all of whom are essential to achieving tangible changes in policies and practices that impact health and equity.

Evidence shows that just 20 percent of a community's health outcomes are driven by clinical care, with social and economic factors, genetics and behavior accounting for the remaining 80 percent. Although many of our residents and neighborhoods enjoy exceptional health, we know that others, particularly people of color, are being left behind. The same residents and neighborhoods experiencing disproportionately poor health outcomes also generally fare worse when measured by any of the nine key drivers of opportunities for health that frame this report: education, employment, income, housing, transportation, food environment, medical care, outdoor environment, and community safety.

It is important to note that the baseline data and outcomes presented in the report are from 2011-2015 but reflect a larger historical context going back many decades – even centuries. While we celebrate progress in the District, we know that there is still much work to do. Transformational change will require honest conversations, with sustained efforts to overcome persistent structural inequity.

Focusing on the social determinants of health is one of DC Health's five strategic priorities. Improving opportunities for health and proactively pursuing health equity is essential to achieving Mayor Bowser's vision of all District residents having a fair shot at a healthy life regardless of race, age, ethnicity, sexual orientation, gender identity, neighborhood, ZIP code, or level of education or income.

We hope this report will be a powerful tool for identifying and pursuing opportunities to improve health across the District. Fortunately, under the leadership of Mayor Bowser, agencies throughout the government are applying an equity lens to their work in the District; as a result, we are ever more effective in our collective efforts.

Sincerely,

LaQuandra S. Nesbitt

LaQuandra S. Nesbitt, MD MPH
Director

Recent Key Driver Investments

Sample Highlights 2015 - 2018

EDUCATION	• $1.34 billion commitment over 6 years for continued modernization of DCPS elementary, middle, and high schools. • Reevaluating high school graduation standards, a first in DC education reform history. • $12.5 million in affordable, high-quality childcare to prepare our youngest learners for success. • Introduced Kids Ride Free Program, which allows students to ride free within the District on Metrobus, the DC Circulator, and Metrorail to get to school and school-related activities. • $7.4 million to provide better school-based health coverage, and expand mental health services in DC Schools.
EMPLOYMENT	• The Workforce Development Program creates new pathways to the middle class through high-paying, high-demand careers in fields such as information technology and infrastructure. • The new Office of East of the River Coordination will elevate the work and progress begun by the Office of Deputy Mayor for Greater Economic Opportunity, which has helped bring unemployment rates down 29% in Ward 7 and 28% in Ward 8. • Created the $1.5 million Inclusive Innovation Fund to support underrepresented entrepreneurs, including people of color, women, LGBTQ residents and individuals with disabilities. • Invigorated monitoring and enforcement of agreements to hire local DC workers.
INCOME	• District's Living Wage Act increased the minimum wage to $12.50 per hour in January 2018 and will increase it to $14.50 per hour in 2019 and to $15 per hour by 2020. • Opened the DC Infrastructure Academy in Ward 8 to create a pipeline to in-demand jobs within rapidly-growing sectors, with an average hourly wage of $48.75. • 42,300 new jobs created in DC since January 2015.
HOUSING	• Affordable housing investments through DC's Housing Production Trust Fund totaled more than $471 million between 2015-2018, delivering 5,800 affordable housing units since 2015 and benefiting approximately 12,700 residents. • Conceptualized and developed the Homeward DC transformative initiative, an 8-ward strategic approach to end homelessness. Includes more than $30 million in new and recurring investments and has contributed to a 40% decline in the number of families experiencing homelessness in the District. Closed outdated facilities such as DC General Hospital, replacing them with smaller, service-enriched and community-based short-term housing programs throughout the District. • FY18 and FY19 budgets invest more than $1 billion to make the District more affordable for residents in all 8 wards; this includes the Parks at Walter Reed, a 100% affordable housing development that will consist of 77 units for previously homeless veterans. • Increased funding dedicated to the Home Purchase Assistance Program, which provides up to $84,000 for low and moderate income residents to help them buy first homes; and expanded the down payment assistance program through the Employer Assisted Housing Program from $10,000 to $20,000.
TRANSPORTATON	• Secured an additional $178 million in dedicated funding per year for Metro as part of a regional fiscal solution to getting WMATA back to a state of good repair. • DC named a "Gold Bicycle Friendly Community" by the League of American Bicyclists and retained its Gold Status Walk-Friendly City standing as designated by the Walk Friendly Communities organization. • New miles of bike trails opened along the Anacostia River, and numerous Capital Bikeshare stations opened in Wards 7 and 8, providing more affordable, healthy transportation options.

	• The DC Department of Transportation improved more than 520 alleyways through AlleyPalooza, an initiative launched in 2015 to promote alley repair and reconstruction. • 65% of DC neighborhoods are walkable and about 58% of commuter trips are by bike, walking and public transit. The goal in SustainableDC is to increase this to 75% by 2032.
FOOD ENVIRONMENT	• Distributed $12 million in healthful food access benefits to women, children and families through programs such as the Special Supplemental Nutrition Program for Women, Infants and Children (WIC), Joyful Food Markets, and Produce Plus. • Expanded lactation support across the District through breastfeeding peer counselors. • Launched the Neighborhood Prosperity Fund, awarding $3 million to support two grocery options in mixed-used development projects in Wards 7 and 8. The fund also supports a broader effort to fill gaps in the non-residential parts of mixed used projects in neighborhoods where unemployment is 10% or greater.
MEDICAL CARE	• 97% of District residents have health insurance coverage, which puts Washington, DC among the best in the country for coverage, and 76% of residents receive preventative care thanks to improved access to health services. • Approximately 2,000 residents aged 60 and older use the District's six wellness centers for a variety of programs, including fitness, nutrition counseling and social activities. • $16.9 million invested in DC's senior wellness centers across the city, including a new Ward 8 wellness center; and expanded Model Cities and Congress Heights wellness centers. • Invested $300 million to support a new state-of-the-art hospital at St. Elizabeths, towards the goal of a sustainable and efficient solution that ensures that residents in every ward have access to high quality and affordable health care options. • Reduction in new HIV diagnoses, and progress towards ending the HIV epidemic in DC by increasing knowledge of HIV status, treatment, and viral suppression.
OUTDOOR ENVIRONMENT	• $296 million planned investments in parks and recreation facilities over the next 6 years, including $4.7 million for educational and recreational improvements on Kingman & Heritage islands located in the Anacostia River, building upon the activities and investments associated with the 2018 Year of the Anacostia. • Based on multiple factors, the District's spending plan for the Volkswagen Settlement Fund of $ 8.1 million prioritizes projects that improve air quality in Wards 7, Ward 8, and Ward 5, where it is likely to have the greatest impact on health and wellbeing. • "Bag Law" and "Foam Ban" reduced use of plastic bags among 80% of residents; 72% fewer bags found in trash cleanups; and 92% business compliance with the foam ban. • DC Government is 100% powered by renewable energy, and is on-track to derive at least 100% of entire city's electricity from renewable sources by 2032. • The Solar for All program aims to half the electricity bills of 10,000 low income residents.
COMMUNITY SAFETY	• Launched the Safer Stronger DC Office of Neighborhood Safety and Engagement, facilitating community-oriented, public health approach to violence prevention. • Over 12,000 security cameras have been installed on homes, businesses and churches funded through the Private Security Camera Incentive Program. • New MPD initiatives dedicated to earning community trust, while changing and saving lives. • More than 50,000 DC residents and visitors were trained in Hands-Only CPR through the Hands on Hearts program. • Strong re-integration and job training programs for returning citizens, such as Project Empowerment, and Aspire to Entrepreneurship through the Department of Small and Local Business Development, help re-build community, find jobs, and combat recidivism. • The re-accreditation of the Department of Forensic Sciences Lab helps police and prosecutors identify and convict perpetrators of crimes.

Acknowledgements

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Summary Report

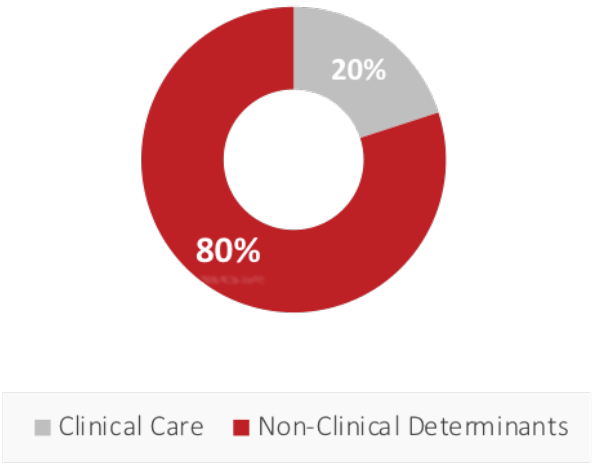
Purpose

The **Health Equity Report for the District of Columbia (DC HER) 2018**[1] provides a baseline assessment of health equity and opportunities for health in Washington DC. Using a social and structural determinants of health approach, population health data on the leading causes of death and projected life expectancy at birth was employed in conjunction with social and economic data and geographic information systems (GIS) tools and methods to develop a snapshot of differential opportunities for health across the city. While a high-level summary for each of the eight wards is included in the main report, emphasis was placed on highlighting the health and socio-demographic profile for the city to 51-statistical neighborhoods around which the analysis focused.

Overarching Goals

- Develop a baseline assessment of social determinants of health in the District of Columbia
- Inform the narrative regarding improving opportunities for health and achieving health equity
- Engage a broad spectrum of the community in essential multi-sectorial solution development

What Drives Health?[2]



Health Equity 101: Six (6) Key Insights

- Health is more than healthcare[3]
- Health inequities are neither natural nor inevitable[3]
- Your zip-code may be more important than your genetic code for health[4]
- The choices we make are shaped by the choices we have[3]
- Structural racism acts as a force in the distribution of opportunities for health[5]
- All policy is health policy[6]

Social Determinants of Health

Evidence shows that overall, clinical care drives only 20% of population health outcomes, with the remaining 80% generated by non-clinical determinants. This inaugural **Health Equity Report for the District of Columbia (DC HER) 2018** utilized an overarching framework on the social determinants of health consistent with the County Health Rankings Model (2014)[2] upon which the diagram above is based. It is further informed by the six evidence-based Health Equity insights from public health literature and practice as shown.

Opportunities for Health: Nine Key Drivers

Community health is explored within the **Health Equity Report for the District of Columbia (DC HER) 2018** through the lens of nine key drivers as listed, with a chapter devoted to each, as summarized below. The focus on these primary social determinants should not be construed as the only topics relevant to health equity in the District. In this **DC HER 2018 Summary Report**, a high-level overview is presented for each driver, including one map, with the goal of crystalizing major issues and connecting branches that inform the health equity conversation. It is anticipated that over time the conversations surrounding these topic areas will be expanded in response to community priorities.

Nine Key Drivers:

	1. Education		2. Employment
	3. Income		4. Housing
	5. Transportation		6. Food Environment
	7. Medical Care		8. Outdoor Environment
	9. Community Safety		

Population Data and Data Sources: The report includes data from the US Census and District of Columbia Department of Health (DC Health), including Vital Statistics and the Behavioral Risk Factor Surveillance System (BRFSS), plus additional data from the DC Office of Planning State Data Center. Data are organized by social, economic, demographic, and health outcome factors

including race, ethnicity, education, and income to illustrate the relationship of social determinants and health outcomes. *(see appendix for noted on how to read report maps)*

Data Organization and Visualization: Proximal Neighborhood Groups (PNGs; also referred to as statistical neighborhoods or neighborhoods) are utilized for analytical reliability because they help connect US Census social determinants and population health outcome data to local places and people. Maps of the 51-statistical PNGs are used throughout the main report to display population-level data. Each has been assigned a number (1 through 51), but has also been named for convenience based on "proximity of place" *(see **Figure 1** for map of all the PNGs used)*. It is important to know that the PNG names being used are distinguishing labels only, are not representative of official neighborhood boundaries, and do not capture the official or lived reality of how residents themselves define their neighborhoods.

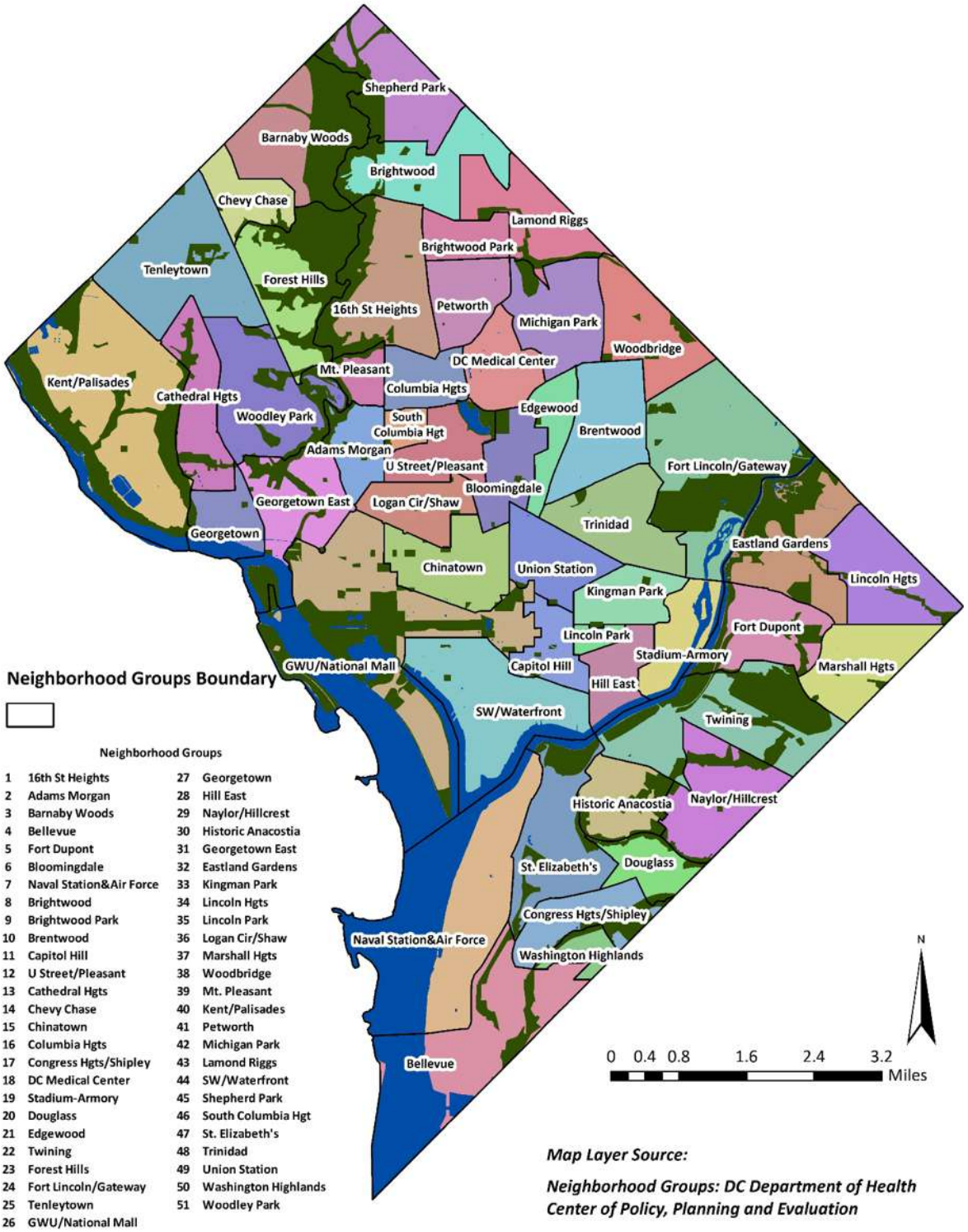
Community Health Drivers: Summary

Disaggregating and mapping the data to the 51-statistical neighborhood level reveals a patterning of outcomes to a more granular scale. For each of the nine drivers, the data present a picture of significant differences across the 51-statistical neighborhoods that align with disparities in health outcomes, including life expectancy, which differs by 21 years between the two ends of the spectrum (**Figure 2**). Life expectancy estimates are used as a key overarching health outcome, underscoring differential opportunities for health in the District.

Proximal Neighborhood Groups & Ward Overlays: Names & Numbers

Figure 1: Statistical PNG Reference Names and Numbers (DC HER 2018)

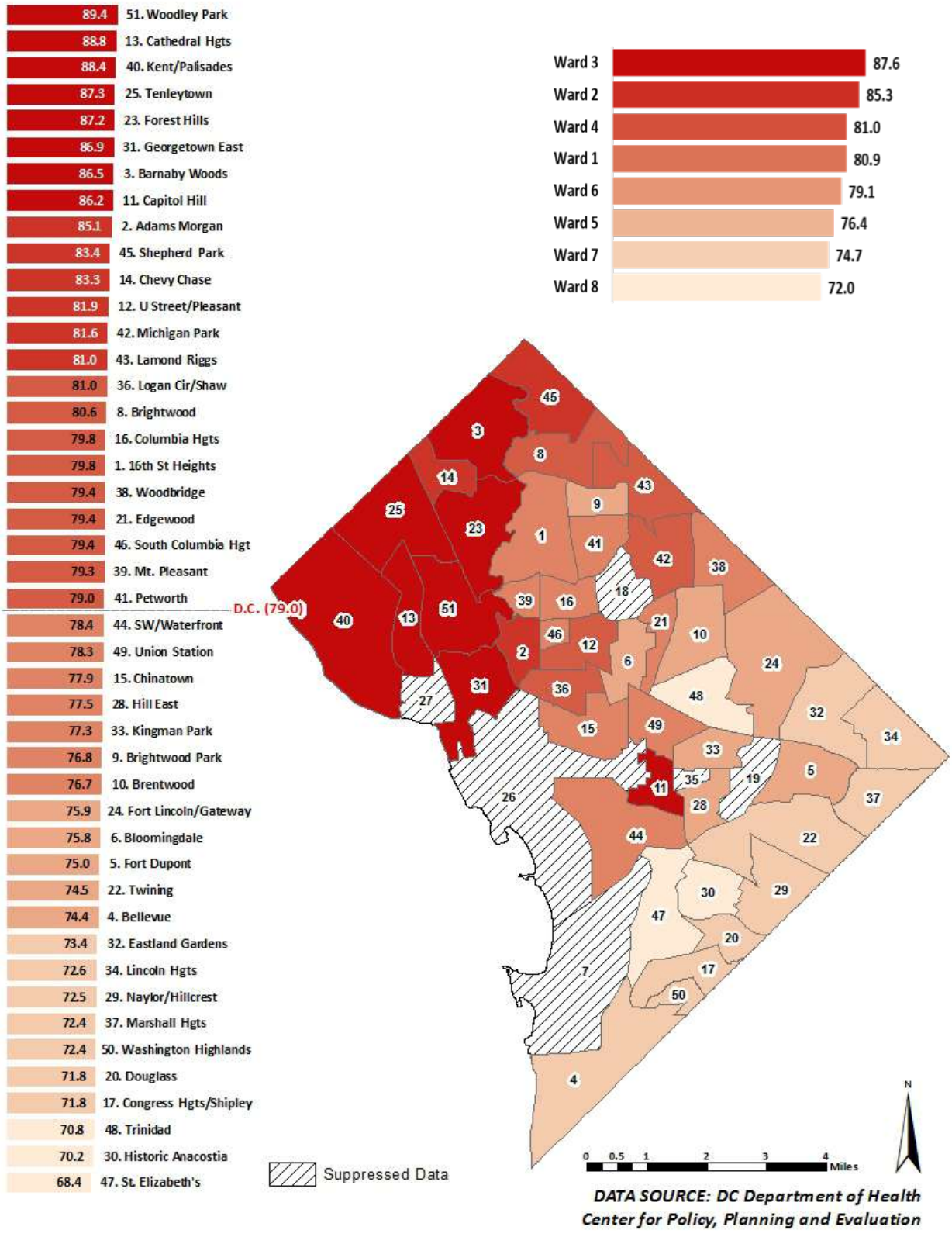
DISTRICT OF COLUMBIA
(PROXIMAL) NEIGHBORHOOD GROUPS



POPULATION HEALTH OUTCOMES by Neighborhood Group

Figure 2: Life Expectancy at Birth (2011-2015) Years

LIFE EXPECTANCY AT BIRTH (2011-2015)



Driver 1: Education

High educational attainment is one of the positive attributes of the District, with 54.6% of residents having earned a bachelor's degree or higher, compared with a US rate of 29.8%. Visualization of educational attainment at the neighborhood level shows differences in the percentage and geographic distribution of residents with a bachelor's degree or higher (not shown). Differences in the percentage and geographic distribution of residents 25 years and older without a high school diploma and living in poverty are also evident at the statistical neighborhood level (**Figure 3**), where the District rate (35%), is higher than the US rate of 27.5%. There is limited overlap in the residential proximity of these two groups of residents at either end of the educational attainment continuum, as well as differential life expectancy of the neighborhoods in which they are concentrated.

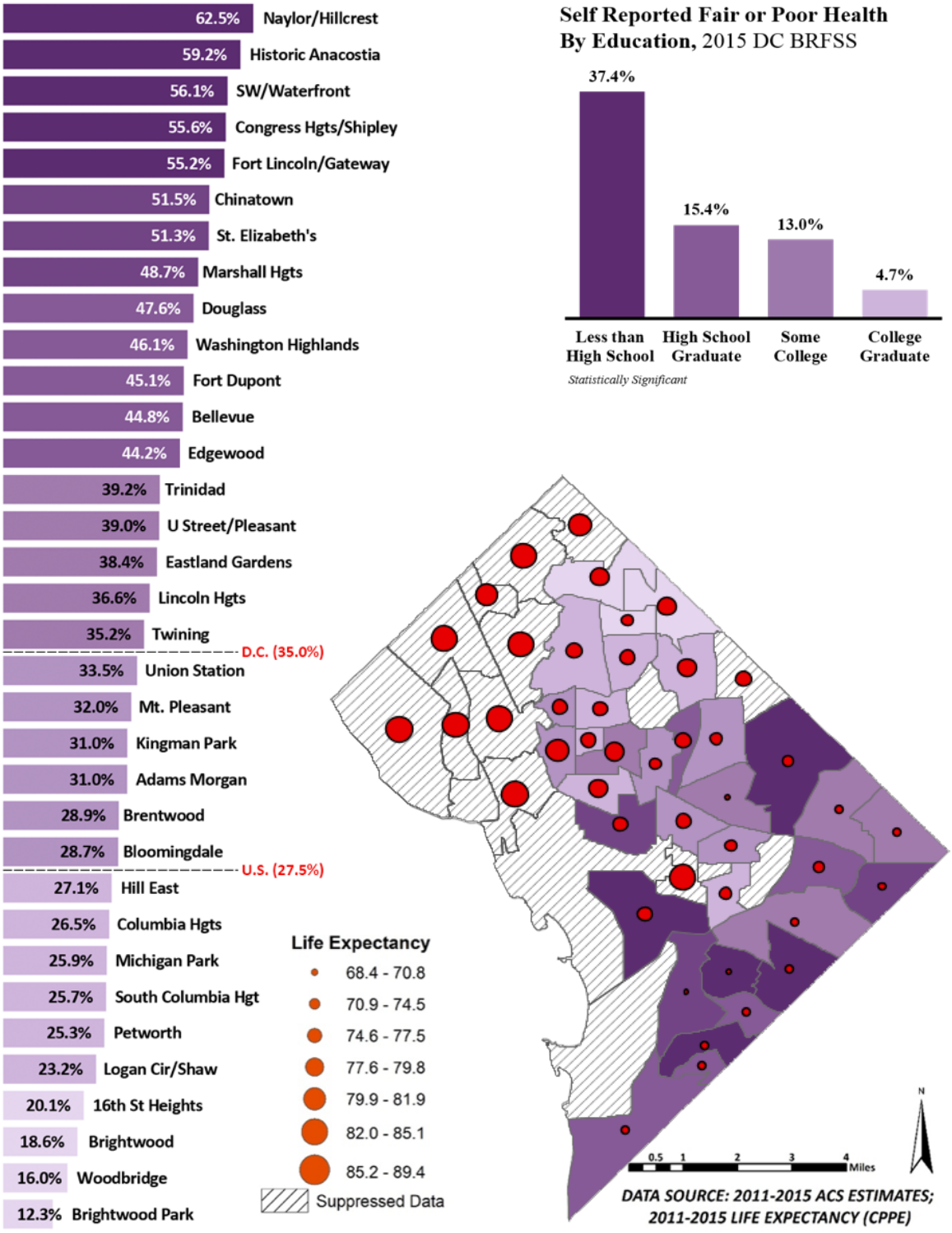
Data on student performance in District Public and Charter Schools also indicate a high degree of variability in performance of individual public and charter schools. There are persistent performance gaps by race and ethnicity (2000 to 2015), including a widening gap over the same period by gender, which negatively impacts male students. All underscore a picture of differential educational opportunities, depending on the high school attended. The 2016 adjusted cohort graduation rate data reveal racial and ethnic differences. White students had a 91.4% graduation rate, compared with African-American students (67.7%), and Latino students (69.2%) (OSSE, 2016b).[7]

Low educational attainment correlates with risk for living in poverty as well as with higher rates of fair or poor health, including higher prevalence and poorer outcomes for a range of health conditions including stroke, heart disease, and diabetes. Data for the District of Columbia in 2015 showed that of adults without a high school diploma, 35% were in fair/poor health (**Figure 3-inset**), a statistically significant difference compared to how those with higher educational attainment rate their health. For those who had graduated from high school, the proportion in fair/poor health was 15.4%, higher still than those with some college (13%) or for college graduates (4.7%). High school graduation is not only a prerequisite to college, but college graduates can expect to live at least five years longer than individuals who did not finish high school (RWJF, 2009).[8]

EDUCATION by Neighborhood Group and Life Expectancy

Figure 3: Adults Without High School Diploma and Living in Poverty

PERCENTAGE OF ADULTS (25+) WITH LESS THAN HIGH SCHOOL DIPLOMA LIVING IN POVERTY



Driver 2: Employment

A good job is more than just a paycheck. Job quality includes not only earned income, but also the availability of employer-supported or provided benefits, such as health insurance, paid leave, or retirement contributions. Data from the United States Department of Labor, Bureau of Labor Statistics (BLS) show that there is a close relationship between higher incomes and more benefits. The reverse is also true, with lower pay linked to fewer benefits as well as lower utilization rates. An estimated 7% of US workers are considered **working poor**, that is, they work at least 27 weeks in the year but still live in poverty. However, more than half of this group (4% of US workers) actually work full time (BLS, 2016).[9]

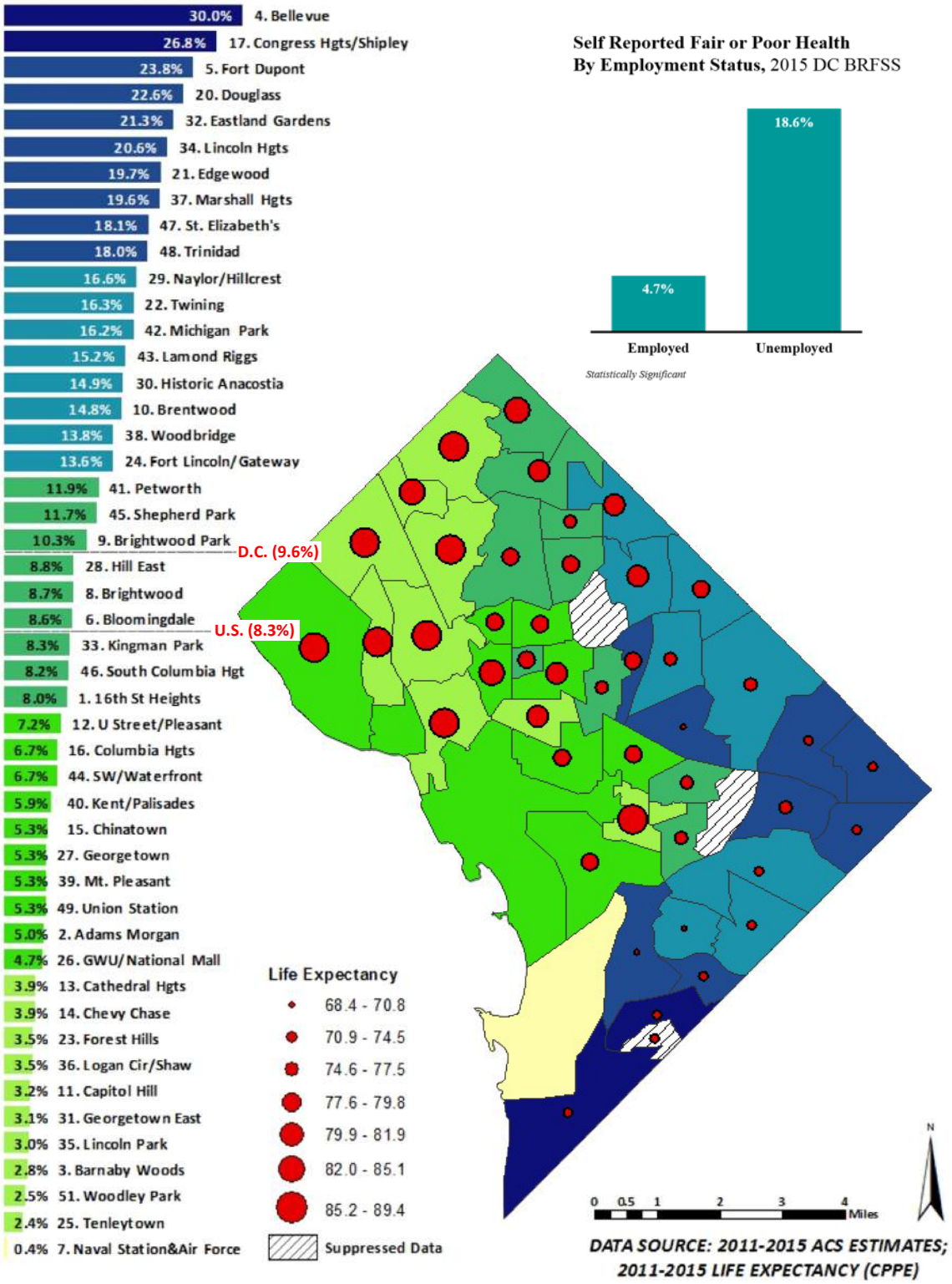
Visualization of adult employment and unemployment for the District at the statistical neighborhood level shows wide variation, with neighborhoods both well above and well below the local and national averages (**Figure 4**). The District's unemployment rate over the span of 2011–2015 was higher than the national rate (9.6% versus 8.3%, respectively). These averages, though, obscure the depth and concentrations across the District, where six neighborhoods in Wards 7 and 8 had unemployment rates in excess of 20%, and one neighborhood (Bellevue) had an unemployment rate of 30%. At the other end of the spectrum, unemployment in Wards 2 and 3 averaged just 3.7% for the same period—40% lower than the national average. Of residents reporting unemployment in the 2015 Behavioral Risk Factor Surveillance Survey (BRFSS), 18.6% reported their health status as fair/poor (**Figure 4-inset**). That number was 4.7% for those reporting that they were employed, greater than a threefold difference.

The importance of employment status to health is well documented. People who are employed have better health, and individuals and families supported by stable employment are better positioned to practice healthy behaviors consistently and use preventative medical services. The increased health risks of unemployment are well known, showing that people who are unemployed are 54% more likely to have fair/poor health, and 83% more likely to develop stress-related conditions and other diseases (RWJF, 2013).[10]

UNEMPLOYMENT by Neighborhood Group and Life Expectancy

Figure 4: Adult Unemployed Population

PERCENTAGE OF UNEMPLOYED POPULATION
(16 YEARS AND OVER OF CIVILIAN LABOR FORCE)



Driver 3: Income

Despite having one of the highest median household incomes in the nation at $70,848 for the District versus $53,889 nationally (US Census, 2011–2015), the District of Columbia's poverty rate, at 18% in 2016, was also one of the highest in the United States. Consequently, the District is also one of a handful of states with rates of income inequality above the national average (US Census, 2017).[11] Mapping of household incomes to the 51-statistical neighborhoods show that the highest neighborhood median household income in 2015—Barnaby Woods, at $200,031—was nearly eight times that of the lowest, St. Elizabeths, at $25,311 (not shown). Overall, an estimated 14.4% of District residents lived at or below $15,000 per year, higher than the national average of 12%, in 2015 inflation-adjusted dollars.

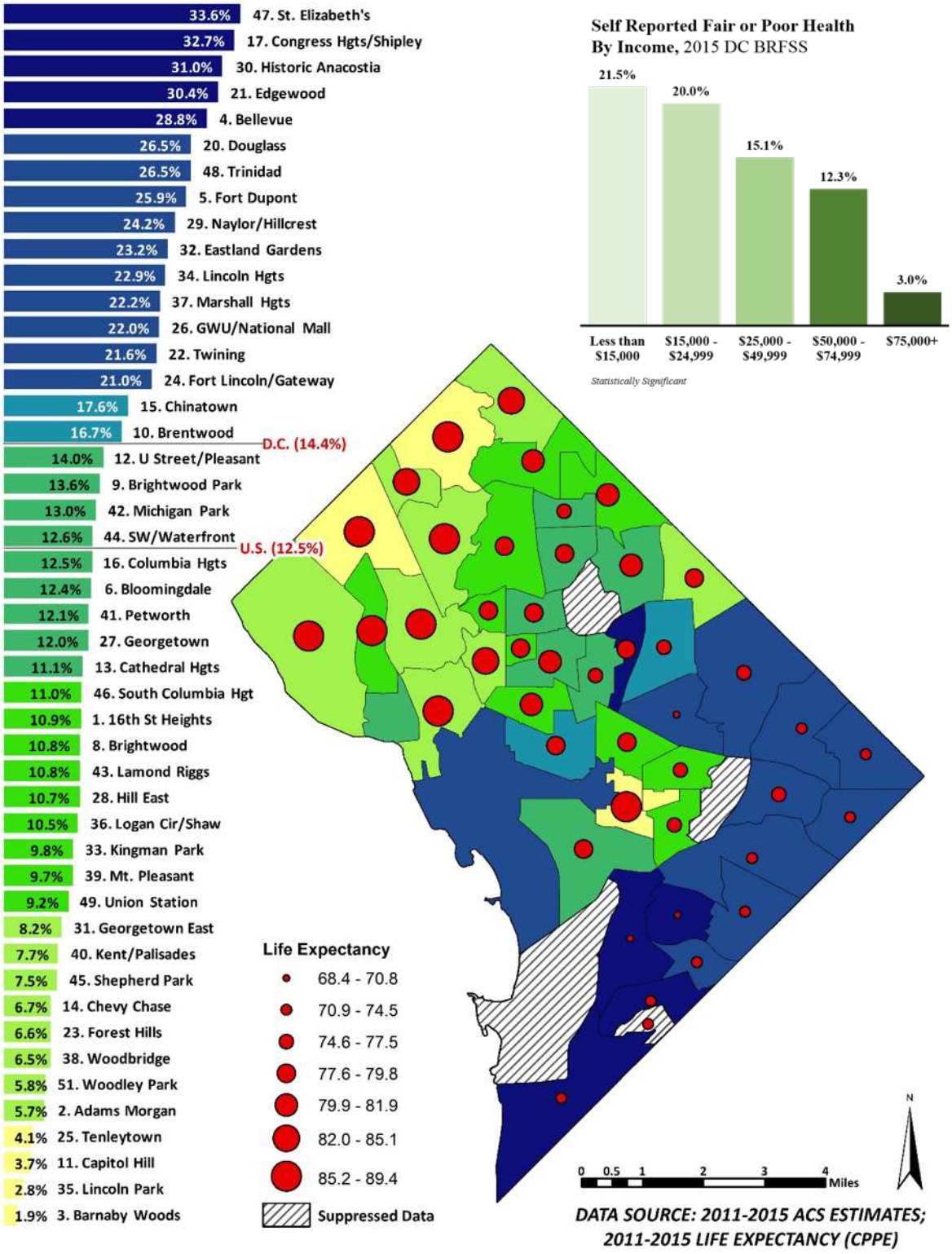
In 15 neighborhoods, there is a concentration of low incomes; their proportion make up more than one in five (20%) of all households, rising to a high of one in three (33%) in St. Elizabeths (**Figure 5**). This concentration of low incomes is correlated with the lowest life expectancy rates. Large gaps in household income by race and ethnicity are also evident, with the largest gaps between Black and White residents. In 2015, the median household income for Black households in the District was $40,677, barely over a third of that of White households at $115,890 (US Census, ACS 2015). The poverty rate for Black District residents, at 27% in 2015, was still above pre-recession levels seven years after the financial crisis (23% of Black residents lived in poverty in 2007). Within the District, 21% of adults earning $15,000 or less reported only fair/poor health, compared with only 3.0% of those earning $75,000 or more (**Figure 5-inset).**

These statistically significant differences in fair/poor health are not simply a rich-versus-poor dichotomy. In fact, at every step along the income scale, perceptible differences in reported health status are evident. These outcomes are consistent with evidence showing that higher incomes and social status are linked with better health. Research also shows that income inequality is linked with health, and that the greater the gap between the richest and poorest residents, the greater the differences in health outcomes. National data show significant gaps between low-income and high-income Americans on the likelihood of having a regular doctor's visit (64% versus 89%), and having a cholesterol check in the past five years (54% vs. 85%) (RWJF, 2013).[12] Other data show that for workers in the highest income quartile, 87% had access to paid sick leave, versus 41% in the lowest income quartile (BLS, 2017).[13]

INCOME by Neighborhood Group and Life Expectancy

Figure 5: Low Household Income (less than $15,000/year)

PERCENTAGE OF HOUSEHOLDS EARNING LESS THAN $15,000 (IN 2015 INFLATION-ADJUSTED DOLLARS)



Driver 4: Housing

A rule of thumb has it that across the United States, households spending more than 30% of gross income on housing are considered **cost-burdened**, and those spending more than 50% are considered severely cost-burdened. US Census selected housing characteristics for the District 2011–2015 show that 51% of households spent less than 30% on rent as a percentage of household income. Another 8.9% spent 30% to 34.9% of income on rent; and the remaining 39.8% spent 35% or more of household income on rent.[14] Mapping of housing cost-burden across the District's 51-statistical neighborhoods shows the percentage of households who spend gross rent as a percentage to household income (GRAPI) at or in excess of 35%. This visualization shows that while nearly 40% of District households meet this definition of cost burden; this is lower than the national average (42.7%) (**Figure 6**).

However, as shown (**Figure 6**), the occurrence of cost-burdened households (GRAPI equal to 35% or greater) differs in concentration across the District, ranging from 19.9% of households in Capitol Hill to a high of 59.6% in Historic Anacostia. The visualization shows generally higher concentrations to the south and east of the city, where, as shown earlier, incomes are lower. At the ward level, gross rents to household incomes were highest in Wards 7 and 8 at 49.0% and 52.8% of households respectively (2011–2015). These differentials are not inconsistent with national data, which show that while those in the bottom quartile of the income distribution spend in excess of 70% of household income on housing, those in the lower-middle quartile spend an average of 38%. In contrast, the percentages of US household income spent on housing fall to 20.8% and 9% for those in the upper-middle and upper quartile, respectively (RWJF, 2008).[15]

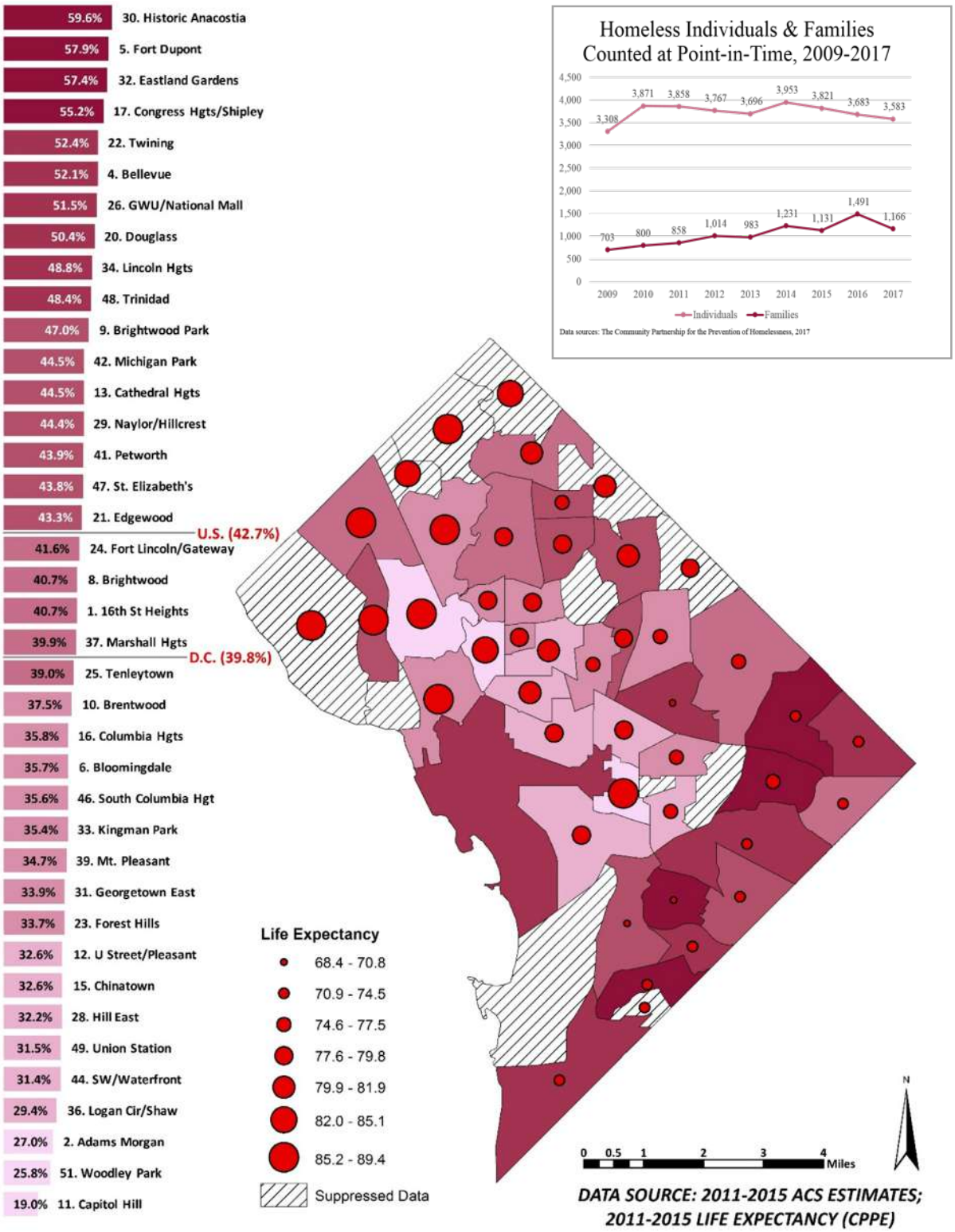
Housing affordability relative to income is critical to determining how much households have left over to meet other basic needs. Severely cost-burdened households endure frequent financial strain and must make difficult tradeoffs between essentials such as food, utilities, and medical bills. It is estimated that 14% of District households experience some level of food insecurity, and 10% worry about running out of food before getting enough money to purchase more (US Census (AHS, 2015), 2016T).[16] Additionally, while homelessness has declined nationally, it has risen in a number of major cities, including the District, which saw a 34.1% increase in homelessness between 2009 and 2016[17, 18, 19] (**Figure 6-inset**). These numbers have since gone down, but as shown, in 2017 there were 1,166 homeless families, including a total of 3,890 family members of parents and children, of which children make up nearly 60%. There were also 3,583 homeless single adult individuals in the District in January, 2017.[19, 20]

The overlay of life expectancy by neighborhood and the percentage of households spending more than 35% of income on housing in the District (**Figure 6**) underscore the correlation between high housing cost burden and its broader consequence, including links to health and life expectancy.

HOUSING COST by Neighborhood Group and Life Expectancy

Figure 6: Household Gross Rent 35% or More of Household Income

GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME (GRAPI) 35% PERCENT AND MORE



Driver 5: Transportation

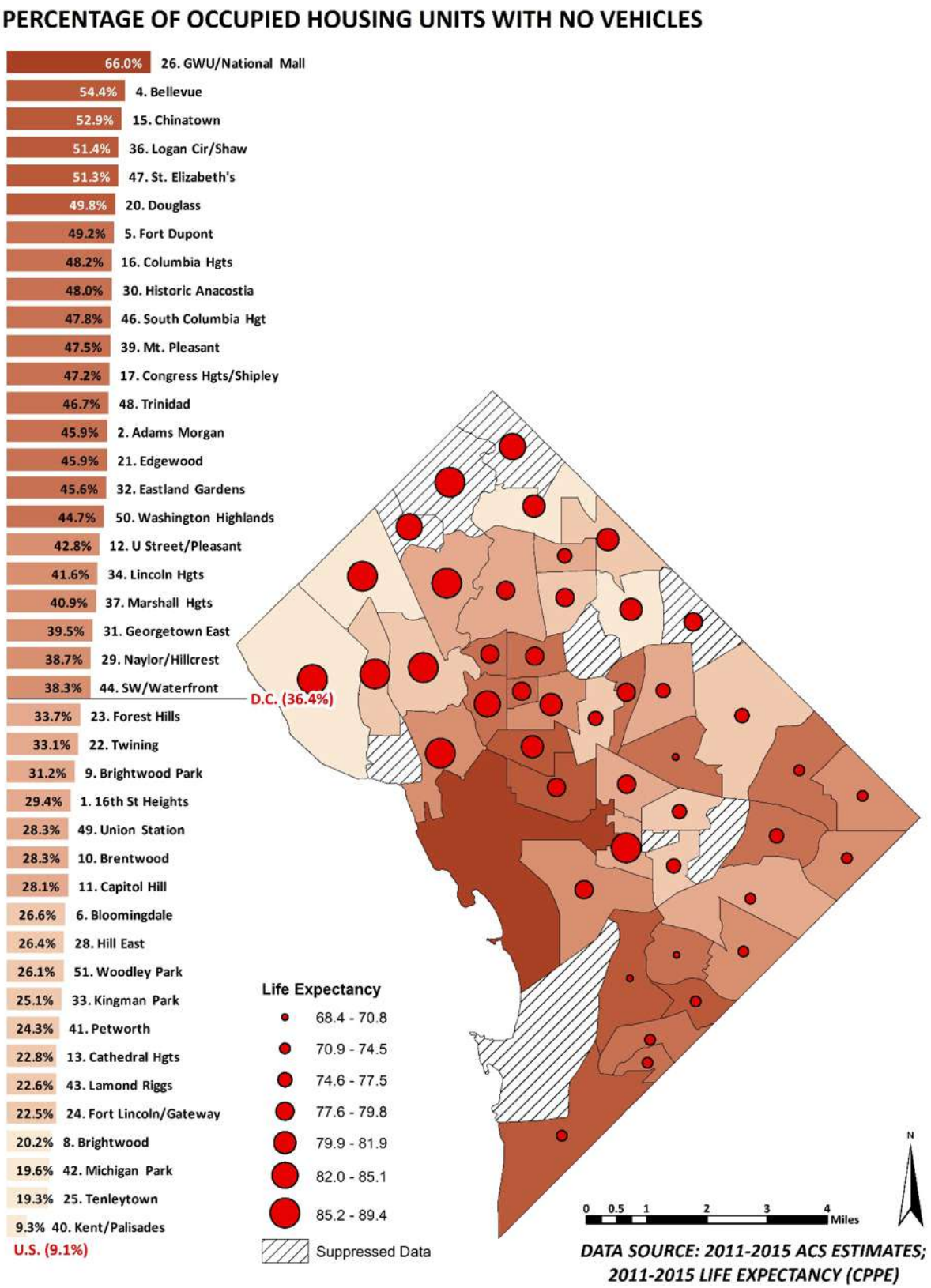
According to the US Department of Labor, Bureau of Labor Statistics, the average US resident spends 17% of annual income on transportation, the second-highest expenditure after housing, at 32% (BLS, 2017).[21] Poor access to public transportation is linked with decreased income and higher rates of unemployment, while decreased access to active transportation (e.g. walking and biking) is linked with decreased physical activity. Transportation is an economic necessity that should be planned with an eye to access, affordability, and active transportation alternatives. Transportation access is essential for connectivity to jobs, schools, daycare, and food, as well as medical care and health services essential to daily living and quality of life. Inadequate transportation limits opportunities available to individuals and to whole communities. The District is a relatively transit-rich environment, where a high proportion of households (36.4%), do not own a vehicle, compared with the national rate of 9.1% (ACS 2011–2015 Estimates).

While many households in the District may actively choose not to own a car, many simply cannot afford one. It is estimated that up to 60% of US households without a car are low-income and are highly reliant on public transportation. Despite the growth of new rideshare options, access gaps in public transportation remain in the District, especially further away from the center. Visualization of transportation options within the District, including Capital Bikeshare locations, bike lanes, and main transit lines (not shown), as well as the percentage of households with no vehicle to the 51-statistical neighborhood level (**Figure 7**) reveal geographic variability. Several neighborhoods, especially to the northwest, have very few households without a car. Toward the center of the city, there are relatively high concentrations of households without access to a car, but this is balanced by high levels of transit availability, including the highest rates of commuting by transit (47.8%) in Ward 1, as well as walking and other modes of commuting at their highest (38.6%) in Ward 2[22] (*See **Figure 1** for ward overlay*). Capital Bikeshare and bike lanes are also much more concentrated towards the city center, with a paucity of biking options beyond (not shown).

High concentrations of zero-vehicle or transit-dependent households are most common in neighborhoods to the south and east of the city, where households without access to a car exceed the District average in most neighborhoods (**Figure 7**). In several neighborhoods, particularly some within Wards 7 and 8, up to half of all households have no access to a vehicle. Rates of transit commuting in these two wards are high, in combination with relatively high rates of car commuting. With economic mobility linked with geographic mobility, opportunities for social and economic success as well as health itself can be dependent on transportation access, opportunities, and cost. The visualized overlay of life expectancy with zero-car households and their concentrations show a correlation (**Figure 7**).

TRANSPORTATION by Neighborhood Group and Life Expectancy

Figure 7: Zero-Car and Transit-Dependent Households



Driver 6: Food Environment

Food environments and opportunities for healthy food purchase differ across the District of Columbia. The mix of healthy options, from full-service grocery stores and supermarkets to farmers' markets, as well as healthy corner stores, varies at the neighborhood level. With a total of 45 full-service grocery stores in the District, the city has an overall grocery store density score of 0.069 (i.e. approx. 0.07 stores per 1,000 population), placing the District in the lowest quartile among states.[23] That said, because of the relatively small geographic size of the District, at 61 square miles, the large majority of residents live within one mile of a grocery store. Based on the USDA Food Environment Atlas, there have been some improvements in the District between 2010 and 2015. Overall, the number of residents living within **Low Income/Low Access (LILA)** areas, based on the one-mile or greater food desert threshold, declined by 25%, to a total of 12,688 (2.11% of the population) in 2015. Of these, about one-third are low-income; about 15% are seniors, and 10% are households without cars.[24]

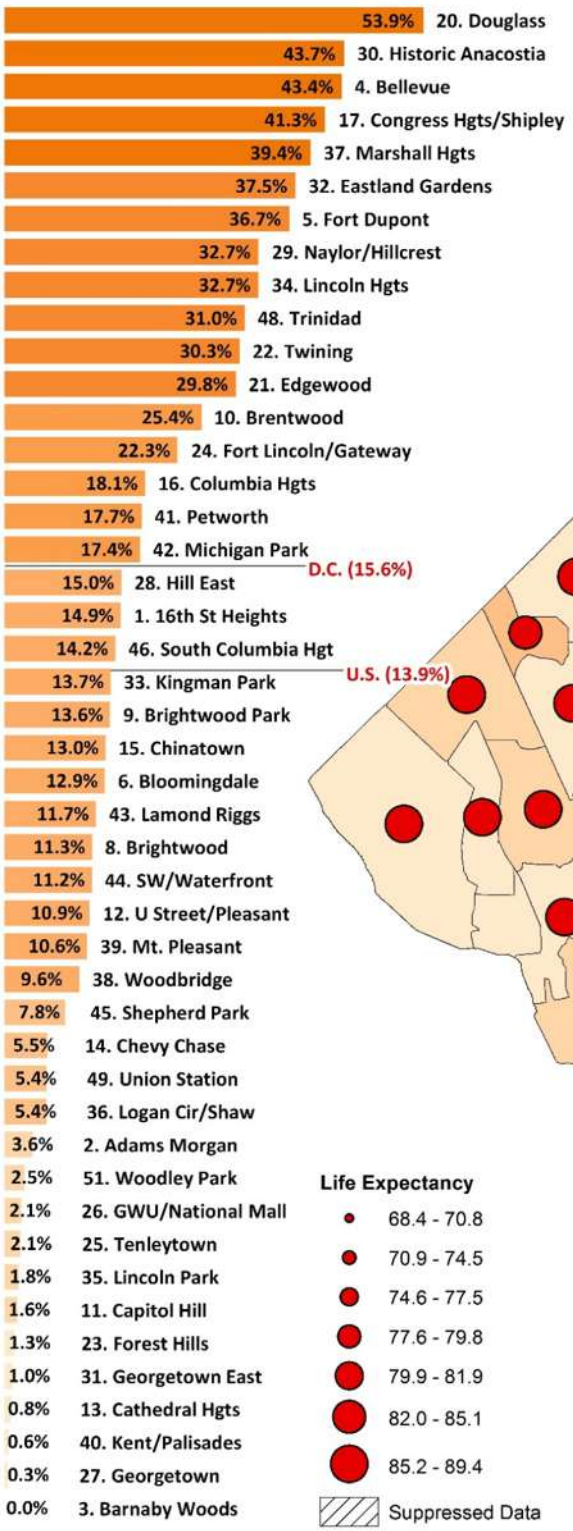
The District's total food environment includes not only access to full-service grocery stores, but also widespread potentially less healthy "food swamp" options including a far greater number of convenience stores (252 total) and liquor stores (231 total), together with several hundred carryout restaurants within the city. A measure of Relative Healthy Food Availability (RHFA) shows the proportion of grocery stores to convenience stores, mapped to the 51-statistical neighborhood level (not shown). Based on this measure, six neighborhoods (12%) had neither grocery nor convenience stores. A total of 17 neighborhoods (33%) had convenience stores only, with no grocery stores within their boundaries. Of the 28 neighborhoods (55%) that had both types of food retailers available, the percentage considered healthy (i.e. grocery stores) ranged from less than 20% healthy in 12 neighborhoods to 20% to 39% healthy in 8 neighborhoods. Only 4 neighborhoods had 40% to 50% of food retail options in the healthy range.

Food insecurity remains a major barrier to healthy eating in the District, with 11.4% of residents classified as food insecure from 2011–2016 and 4.0% classified as very low food security.[25] Nearly 16% of District households received public assistance income and/or Supplemental Nutrition Assistance Program (SNAP) benefits (**Figure 8**), underscoring its critical role in bridging food gaps. Life expectancy overlays shows correlations between highest SNAP use and lowest life expectancy by neighborhood. This is not to suggest that benefits have a perverse effect on life expectancy. Rather, it illustrates the impact of multiple confounding factors that residents in some neighborhoods face. Starting with high housing-cost burden, resource scarcity is accentuated in combination with costly transportation options, where just a few remaining dollars are available for necessities such as food.

FOOD ENVIRONMENT by Neighborhood Group and Life Expectancy

Figure 8: Households with Public Assistance or SNAP Benefits

PERCENTAGE OF HOUSEHOLDS WITH PUBLIC ASSISTANCE INCOME OR SNAP IN THE PAST 12 MONTHS



- DC's Food Insecurity prevalence 2011-2016, includes nearly 36,000 households — 11.4% of residents
- Overall prevalence of very-low food security in DC is significantly higher than the national average for some groups
  - 10% of Households with children Individuals living alone: men = 6.7%; women = 7.5%
  - Black Households – 9.7%
  - Hispanic Households – 5.8%
  - Low-income Households (185% of poverty) – 13%

(USDA 2017)[25]

Driver 7: Medical Care

The District of Columbia has long prioritized health insurance coverage to promote and protect the health of as many residents as possible, including the expansion of Medicaid, even prior to the introduction of the Affordable Care Act (ACA), and also introduced the DC Alliance program. Additional benefits of the ACA bolstered these efforts, bringing the estimate to 94.2% (2011–2015 ACS) of District residents with insurance coverage. Data mapping shows differing distributions of populations with any type of health insurance, those with public coverage (35.1%), and those without any health insurance (5.8%). Although those living without health insurance are a small group, doing so impacts different racial/ethnic resident groups differently. Nearly 1 in 7 Hispanic residents (13.5%) have no health insurance compared with 1 in 15 (11.8%) Black residents, and 1 in 30 (3.5%) White residents.[26]

Major investments over the past decade mean that primary care service supply and availability has expanded across the District, sufficient for the resident population. Some gaps persist, however, particularly in specialty services and urgent care.[27] However, even with the same access to care, implicit bias can negatively impact the care received, especially by people of color, immigrants, linguistic minorities, women, LGBTQ communities, and other historically disadvantaged populations.[28] Infant mortality is an important indicator of the health and well-being of a population. While the long-term trends in infant mortality are positive overall, persistent differences remain, with mortality rates three times higher for babies born to Black mothers than for their White counterparts. Differential health outcomes also persist across the life course. In 2015, while 19.5% of Black residents reported fair/poor health, this was significantly higher than that for White residents (3.9%), and double the 9.1% rate for other races/ethnicities as a group (BRFSS, 2015).

Since 2006, national data has shown that health literacy is an issue for all Americans. Regardless of income, race or ethnicity, and even though some groups are more impacted than others, more than 1 in 3 adults have limited health literacy. Few adults (12 %) are considered "proficient." Only 9% scored in the highest numeracy levels. Nearly 9 in 10 adults may lack the skills to manage their health and prevent disease; with consequences for how individuals and communities understand their health risks, the benefits available to them, the ways in which they access medical care, including the health behaviors they exhibit.[29, 30] Recognition of health literacy as a systems issue acknowledges the complexity of health information and the health care system itself, requiring increased focus on system-level changes, from individual providers, through to insurance companies. DC's health insurance–rich environment is ripe for application of universal-precaution best practices that assumes that everyone may have difficulty understanding and seeks to create an environment where all literacy levels can thrive.[31]

MEDICAL CARE by Neighborhood Group and Life Expectancy

Figure 9: Population with Health Insurance Coverage

PERCENTAGE OF POPULATION WITH HEALTH INSURANCE COVERAGE (CIVILIAN NONINSTITUTIONALIZED POPULATION)

98.5%	25. Tenleytown
98.0%	31. Georgetown East
98.0%	35. Lincoln Park
97.9%	27. Georgetown
97.7%	40. Kent/Palisades
97.5%	51. Woodley Park
97.1%	14. Chevy Chase
96.9%	28. Hill East
96.8%	24. Fort Lincoln/Gateway
96.6%	13. Cathedral Hgts
96.5%	26. GWU/National Mall
96.1%	11. Capitol Hill
95.7%	49. Union Station
95.7%	37. Marshall Hgts
95.5%	34. Lincoln Hgts
95.4%	2. Adams Morgan
95.3%	33. Kingman Park
95.2%	15. Chinatown
95.2%	23. Forest Hills
94.9%	10. Brentwood
94.9%	22. Twining
94.8%	17. Congress Hgts/Shipley
94.7%	47. St. Elizabeth's
94.6%	44. SW/Waterfront
94.6%	29. Naylor/Hillcrest
94.6%	12. U Street/Pleasant
94.5%	39. Mt. Pleasant
	D.C. (94.2%)
94.4%	5. Fort Dupont
94.2%	36. Logan Cir/Shaw
94.1%	6. Bloomingdale
94.0%	38. Woodbridge
94.0%	45. Shepherd Park
94.0%	30. Historic Anacostia
93.8%	20. Douglass
93.1%	32. Eastland Gardens
93.1%	4. Bellevue
92.7%	50. Washington Highlands
92.7%	3. Barnaby Woods
92.7%	43. Lamond Riggs
92.1%	46. South Columbia Hgt
91.2%	1. 16th St Heights
91.1%	21. Edgewood
90.8%	42. Michigan Park
90.6%	16. Columbia Hgts
89.3%	8. Brightwood
88.9%	41. Petworth
	U.S. (87.0%)
88.4%	48. Trinidad
84.7%	9. Brightwood Park

RESIDENTS WITHOUT HEALTH INSURANCE: 5.8%

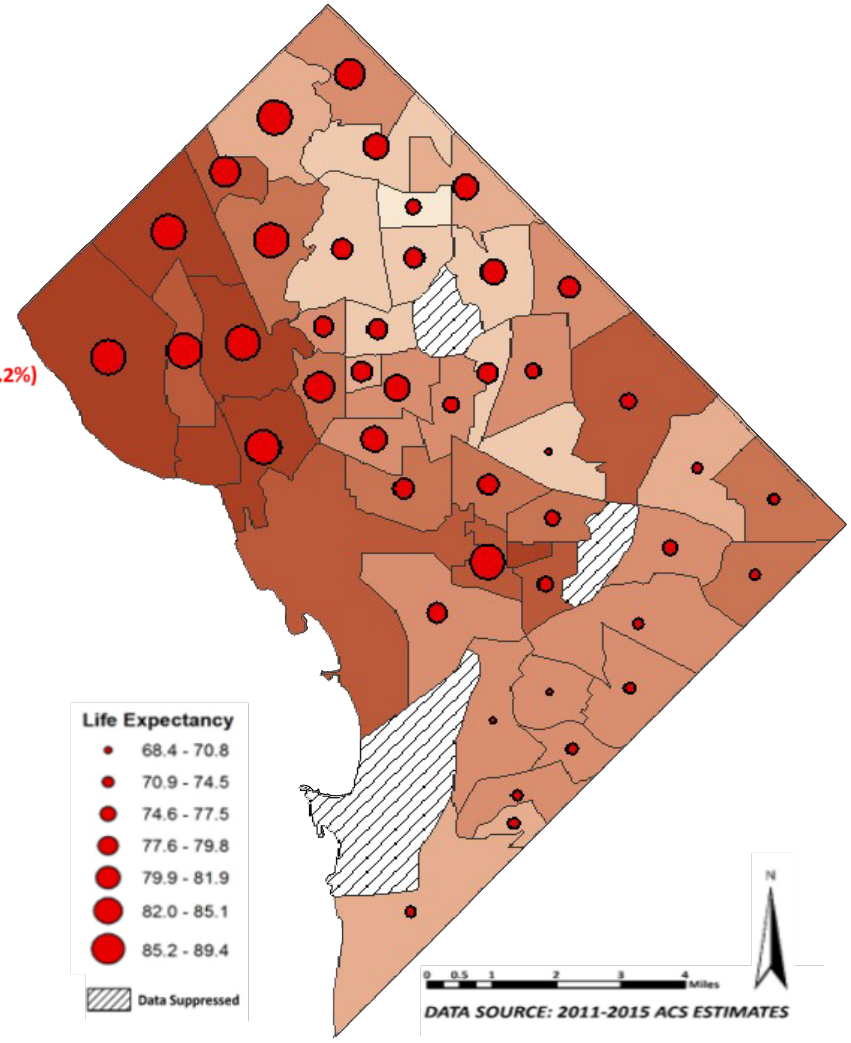
- White residents: 3.5%
- Black residents: 6.4%
- Hispanic residents: 13.5%

(ACS 2011–2015)

DC HAS 168 LANGUAGES AT HOME

- 17% of residents 5 years and older speak a language other than English at home

(US Census, ACS 2017)



Driver 8: Outdoor Environment

A detailed review of the evidence suggests that proximity to green space provides a tangible health benefit, that this benefit is particularly apparent among low-income residents, and that it is more pronounced with closer proximity to that space (BMJ 2014).[32] The District performs well overall, scoring the fourth-highest ParkScore of 100 cities sampled in 2017 (Trust for Public Land, 2017).[33] However, the data also show that residents who earn less than 75% of the median city income have reduced levels of park access. There are significant differences in physical activity levels by ward. In Ward 3, adults with no physical activity was lowest at 6%; compared with Wards 1 and 6 in the middle, with rates at 18% and 23%, respectively (**Figure 10**) (BRFSS, 2015). The highest rate of no physical activity was in Ward 8, at 38%. The District also lags behind the national average in percentage of residents reporting no physical activity—26.2% versus 19.4%, respectively (**Figure 10 inset**).

Asthma is a condition impacted by environmental pollutants from outdoor and indoor sources. Data available at the zip code–level show differences in rates of pediatric (age 2 to 17) asthma visits to hospital emergency departments (**Figure 11**). While this analysis is not available at the statistical neighborhood level, an overlay of PNG boundaries with life expectancies are shown for reference. Not shown are ward-level differences in adults reporting asthma, with the highest, at 23.4%, in Ward 8, followed by 15.3% for Ward 6, 11.7% for Ward 7, and 10.6% in Ward 3 (BRFSS, 2015).

Background work in developing the District's plan to adapt to climate change looked at the number of residents with higher vulnerability, using social and economic indicators, including age and rates of obesity and asthma. This analysis showed that vulnerability to climate change was not evenly distributed. Wards 7 and 8 had the highest concentrations of vulnerability, as well as a large elderly population. They were followed in order by Wards 5, 6, 1, and 4.[34]

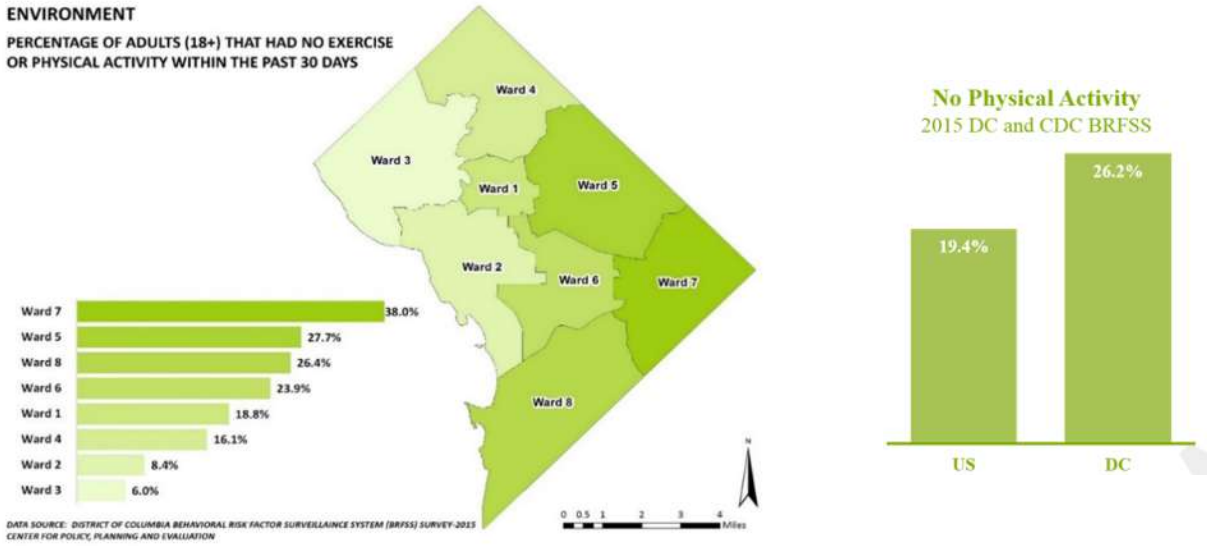


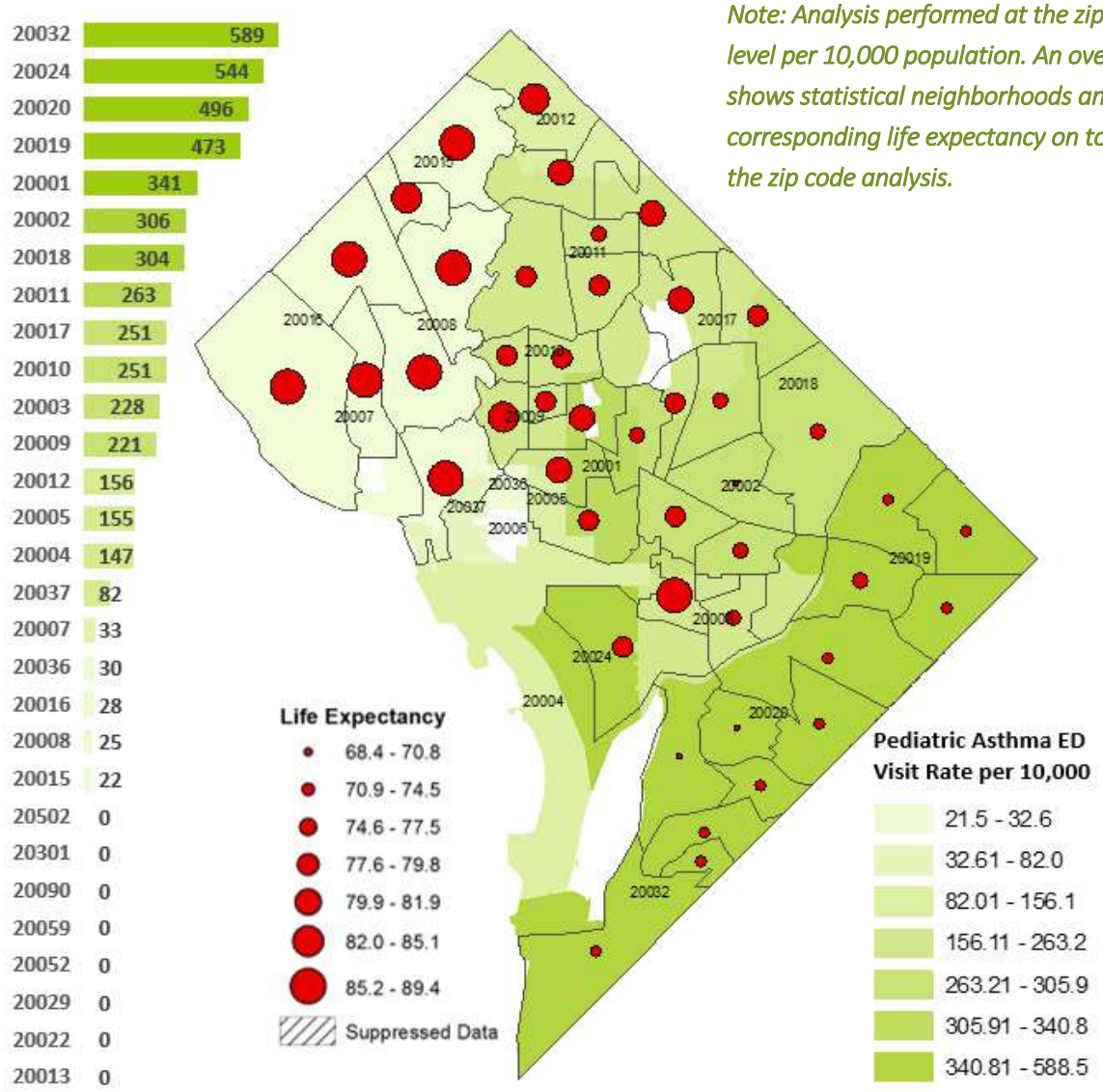
Figure 10: District Adult Physical Activity By Ward± BRFSS 2015
Source: DC Department of Health, Behavioral Risk Factor Surveillance System, 2015

OUTDOOR ENVIRONMENT by Zip Code and Life Expectancy

Figure 11: Pediatric (age 2 to 17) Asthma Emergency Room Visits, 2014-2016

RATE PER 10,000 PEDIATRIC (AGE 2-17) ASTHMA EMERGENCY ROOM VISITS

Note: Analysis performed at the zip code level per 10,000 population. An overlay shows statistical neighborhoods and corresponding life expectancy on top of the zip code analysis.



Data Source: Hospital Discharge Data 2014 – 2016, DC Hospital Association
Data Analysis: Center for Policy, Planning and Evaluation, DC Department of Health

Driver 9: Community Safety

Community safety is a broad category of public health consideration, encompassing falls and injuries; transportation and motor vehicle accidents; unintentional poisoning and overdose; and violence, including both homicide and suicide. The District compares favorably to the national average in some of these areas, such as unintentional injuries, with the District's rate of transportation-related deaths half that of the national average. Of the 718 violent deaths in the District from 2011 to 2015, 74% were homicides and 26% were suicides. Between 2009 and 2013, the District ranked first in the nation in firearms deaths. In 2011–2015, the rate was 13.3 per 100,000 population for mortality due to injury in the District involving a firearm, compared with 10.7 for the nation as a whole. Mortality due to homicide was 16.0 per 100,000 in the District, three times the national rate of 5.2. Of all homicide deaths in the District, over 70% were people ages 16 to 39 years, and 81% were Black males (DOH CPPE, 2017).[35]

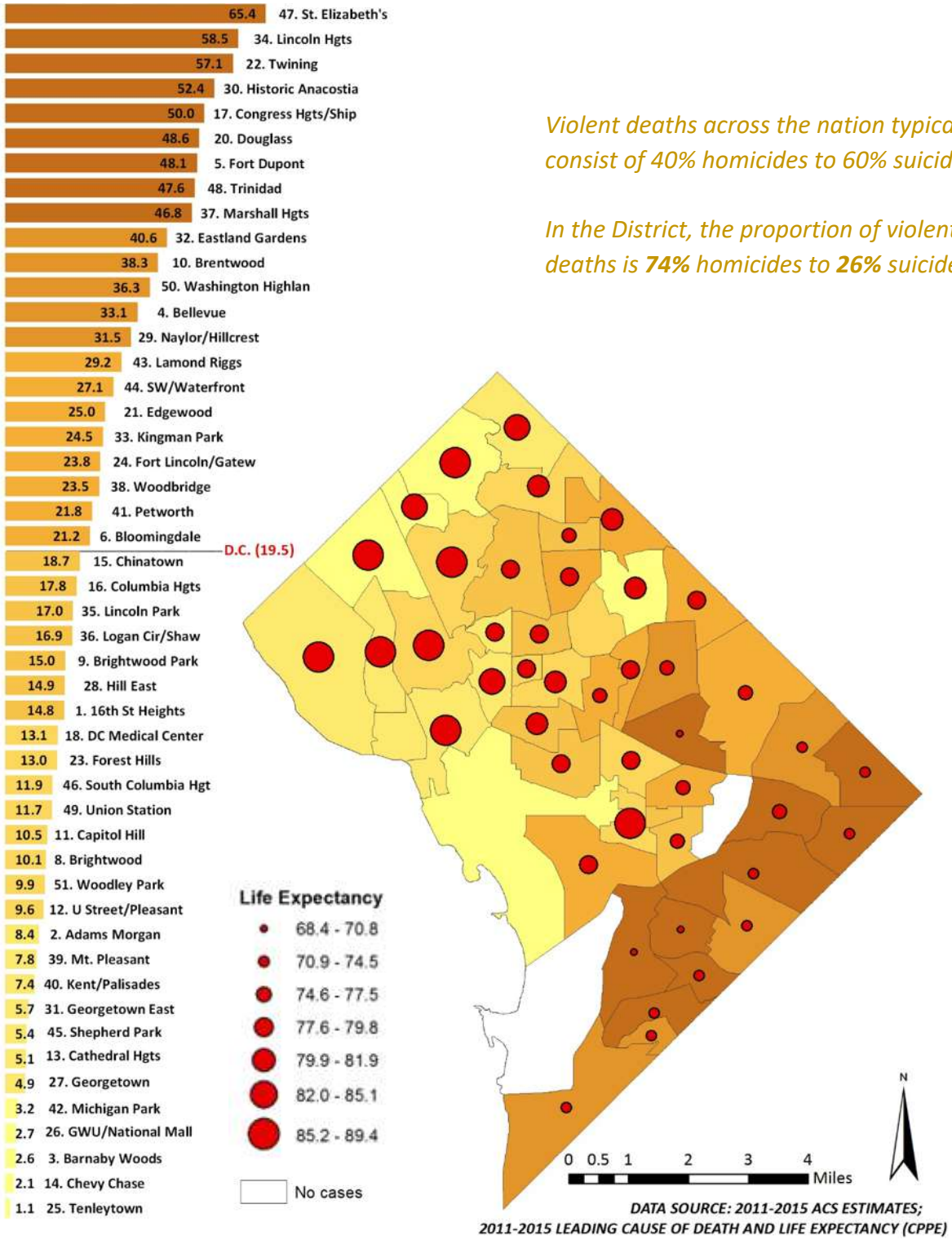
The opioid epidemic has resulted in a threefold increase in opioid-related deaths nationally, but it has manifested differently in the District. The age distribution of opioid overdose deaths in the District compared to nationally shows lower rates in the District across all age groups, with the exception of the 55-years-and-older age range. Nationally, only 19% of opioid deaths are in this age group, compared with 45% in the District. The population most affected by opioid overdose deaths in the District compared to that of the nation by race and ethnicity also contrasts sharply. Nationally, 84% deaths are to Non-Hispanic Whites; within the District, 84% of deaths are to Non-Hispanic Blacks/African Americans. In the District, Hispanics also make up a lower share of opioid overdose deaths, compared to the national average. This demographic age and race differential, in combination with gender differences, results in black men over 40 as the most highly impacted by the epidemic in the District (DOH CPPE, 2017).[36]

Mapping and visualization of crime incidence data (not shown) show higher concentrations of crime towards the center of the city. In contrast, the visualization of age-adjusted violent deaths (**Figure 12**), shows a different geographic distribution, more concentrated toward the south and east of the city. The overlay of life expectancy, and low life expectancy in particular, is more closely correlated with the violent deaths than with crime rates alone (as measured by the number of incidents). Research shows that factors such as lack of jobs, racial and economic segregation, and concentrated poverty negatively impact neighborhood quality, community safety, and quality of life.[37] Cumulatively, these increase the likelihood of violence, including the effects of community and historical trauma. In contrast, the evidence shows that healthy communities—those that have positive attributes and alternatives, such as quality schools, economic opportunities, clean and well-designed physical environments, and structured activities that young people find meaningful, have prosocial benefits that create conditions improving community safety and protecting against violence.[38]

COMMUNITY SAFETY by Neighborhood Group and Life Expectancy

Figure 12: Violent Death Rates per 100,000, Combined Homicide and Suicide

AGE-ADJUSTED VIOLENT DEATH RATE, 2011-2015
(DISTRICT RESIDENTS)



Violent deaths across the nation typically consist of 40% homicides to 60% suicides

*In the District, the proportion of violent deaths is **74%** homicides to **26%** suicides*

DATA SOURCE: 2011-2015 ACS ESTIMATES;
2011-2015 LEADING CAUSE OF DEATH AND LIFE EXPECTANCY (CPPE)

Opportunities for Health in DC: Interrelated Pathways

Interrelated Pathways: Where You Live and How Long You Live

Data presented throughout the body of the **Health Equity Report for the District of Columbia (DC HER) 2018** show that while the overall health of District residents has improved during the past decade, health disparities and inequities—as measured by almost any indicator—are evident by race, income, and geography across the District of Columbia. Infant mortality, which is the death of a baby before his or her first birthday, is an important indicator of the health and well-being of a population. Infant mortality in the District has declined, with the rate per 1,000 live births falling overall, from 13.6 in 2005 to 7.1 in 2016. While all groups saw a decrease, the rate for babies born to Black mothers remains well above the District average, and is still three times that of their White peers (DOH CPPE, 2018).[39]

Differential health outcomes also persist across the life course, as evidenced by self-reported fair or poor health by race and gender. While 3.9% of White residents fall into this category, nearly 1 in 5 Black residents (19.5%) report fair/poor health, which is over twice that of all other races, at 9.1% (**Figure 13**, BRFSS, 2015). Data and mapping of resident demographics across multiple indicators have shown residential patterning by race and ethnicity as well as by socioeconomic status, creating racially/ethnically and economically segregated communities within the District (DC HER 2018).[40]

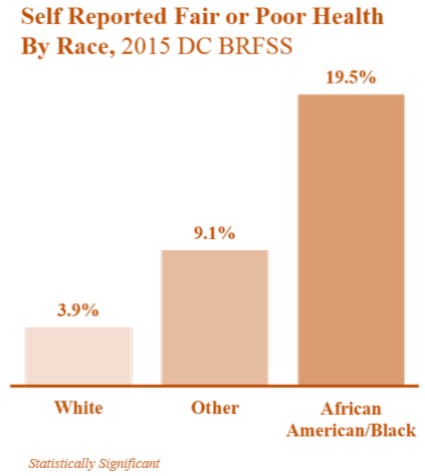


Figure 13: Adult Fair and Poor Health by Race, Ethnicity and Gender, DC BRFSS 2015

Source: DC Health, BRFSS Surveillance System

Figure 14 shows race and ethnicity percentages by neighborhood group. Each of the four maps show the percentage of White, Black, Hispanic, and Asian population distributions across DC. As with this visual representation, the District's Racial Dissimilarity Index Score of 70.9 for the five-year period 2011 to 2015 confirms that the city continues to be highly segregated. Theoretically, 70% of White residents would have to move to achieve complete White/Black integration; or 59% would have to move to gain complete White/non-White integration by race and ethnicity.[41]

Differential life expectancy at birth across the 51-statistical neighborhoods show a 21-year gap between the longest (89.4 years) and shortest (68.4 years) estimated length of life (**Figure 2**). Life expectancy was overlaid with outcome measures across the full range of nine key drivers, from education to community safety. Visualizing the correlation between the different socio-demographic levels of statistical neighborhoods with life expectancy, underscores the similarity of outcomes distributions, as well as large gaps, across all of the determinants.

Life expectancy data also aligns with income levels, poverty concentrations and racial segregation. This is consistent with the finding that racial segregation explains 70% of observed difference in life expectancy. Racial segregation together with economic segregation explain 76% of the observed differences (CPPE, 2014).[42]

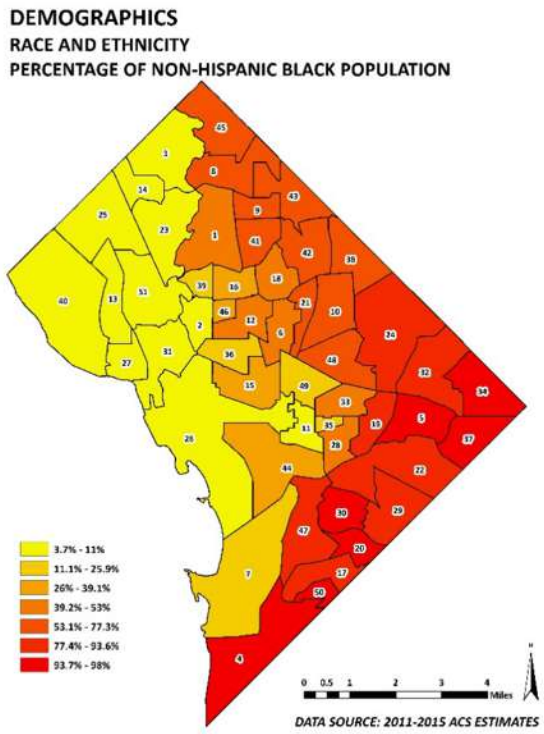
Racial and Economic Segregation:

In making the ***Business Case for Racial Equity (2013)***, a group of health equity researchers, drawing on the ever expanding body of knowledge that demonstrates how racism in the US has left a legacy of inequities across the full spectrum of social determinants, identified impacts across education, employment, income, wealth, housing, as well as health. While noting that significant progress has been made in eliminating legal discrimination and its overt expressions, disparities by race and ethnicity remain imbedded in societal institutions that connect these structural barriers in contemporary context and "place" (Turner et al., 2013).

RACE AND ETHNICITY by Neighborhood Group

Figure 14: Percentage of Non-Hispanic White; Black; Hispanic and Asian Populations (Maps 1-4 Clockwise)

1.



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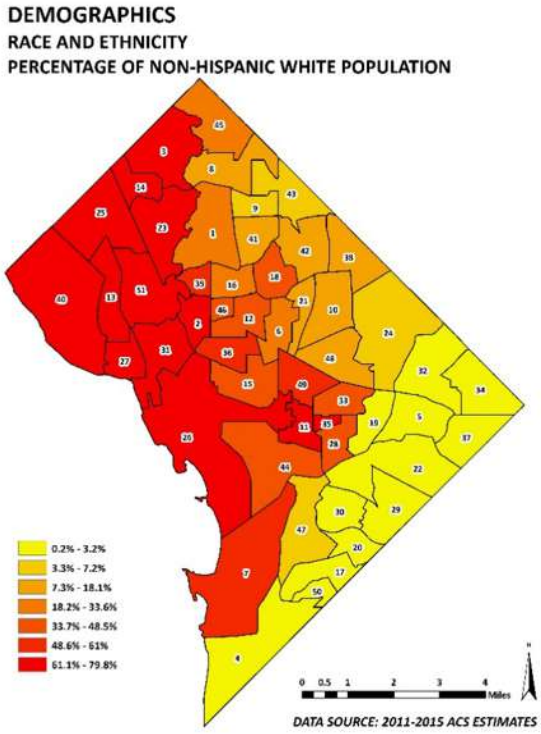

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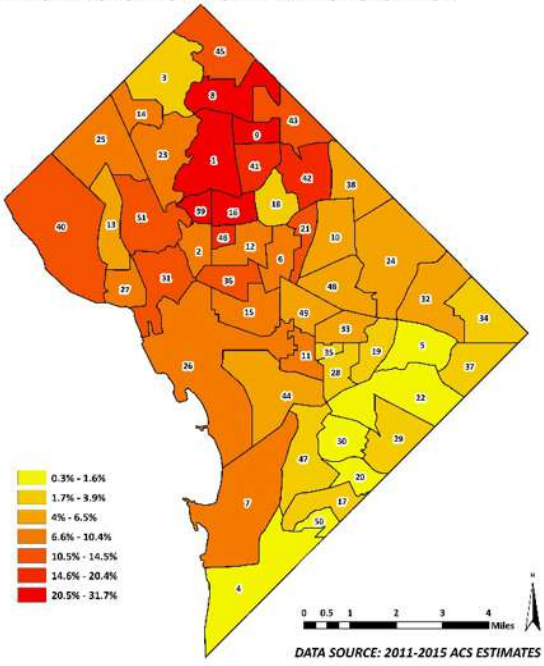

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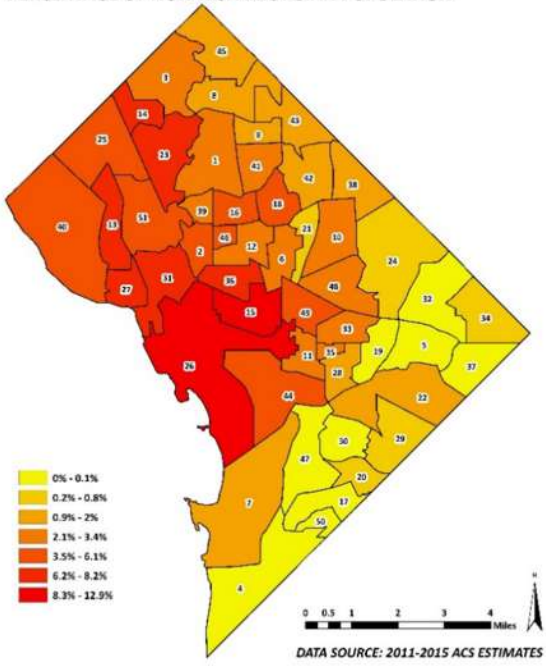
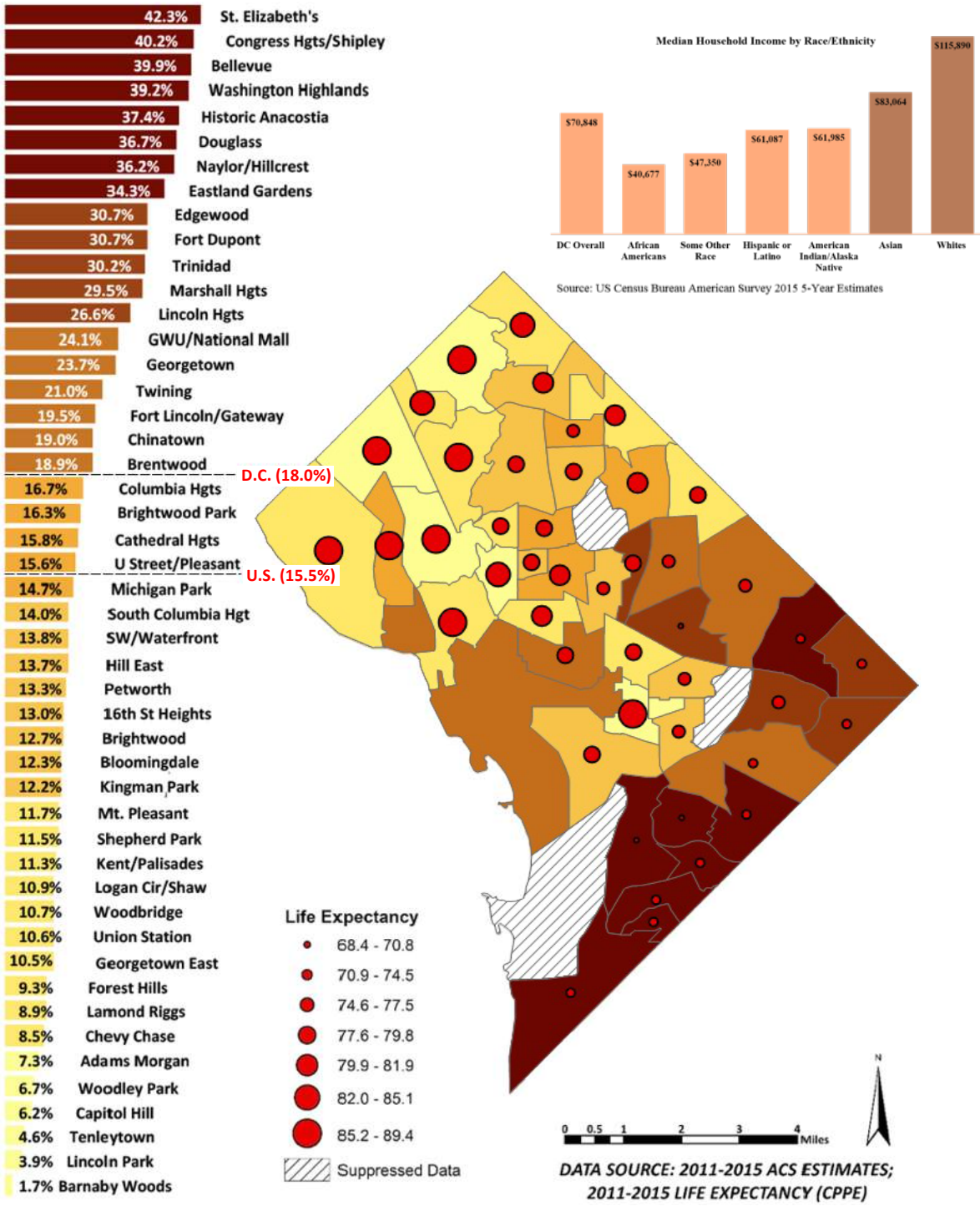


OPPORTUNITIES FOR HEALTH IN DC by Neighborhood Group

Figure 15: Population in Poverty and Life Expectancy

PERCENTAGE OF TOTAL POPULATION IN POVERTY



Connecting the dots are critical, lest the persistently inequitable outcomes be mistaken as either natural or inevitable; the result of the 'invisible hand' of the market, acting on a level opportunity playing field (see also, Smedley et al., 2002[44] and LaVeist et al., 2011[45]). To be clear, Turner et al. (2013) noted that: "Opportunities that were denied racial and ethnic minorities at critical points in the nation's history have led to the disadvantaged circumstances that too many children of color are born into today" (p. 3).

This speaks not only to the relevance of race and ethnicity to the equity conversation, but more explicitly to the importance of paying attention to the intersections among the nine key drivers of opportunity to health. While poverty *per se* was not specifically examined as one of the key drivers, it provides a useful neighborhood context summary measure of social and economic segregation. The nine key drivers were explored individually as an important means of unpacking underlying root causes. They share interconnected pathways, however, with notable intersections and correlations. As a consequence, the lived reality for District residents, in the neighborhoods where they live, learn, work, play, and age, is one where the drivers work together in multiple ways with compounding effect, including those of economic segregation and the concentration of poverty (**Figure 15**).

The visualization of population in poverty to the 51-statistical neighborhood level overlaid with life expectancy levels (**Figure 15**) is illustrative of the close correlation of socio-demographic status and length of life in the District. It also shows the correlation between where you live (place), and how long you live (life expectancy). Where individuals and families live, however, is not a simple reflection of individual choice or preference. It is the complex outcome of social, economic, and market forces, which include less visible but real and persistent structural ramifications such as historic and contemporary racial, economic, and residential segregation. Because poverty is a common effect of cumulative disadvantage, with multiple inequities acting on the same people and communities at the same time, it serves in effect, as a useful proxy indicator and summary measure of differential opportunities for health.

Differential Opportunities for Health in DC

Illustrative of differential opportunities for health in the District is the Selected Indicator Summary (**Table 1**) below. It shows a sample of indicator data, including one for each of eight key drivers. Note that the outdoor environment is omitted, because a comparable metric is not available to the statistical neighborhood level. Organized by 45 statistical neighborhoods (*Six omitted, per **Figure 2**, have life expectancy data suppressed*), and ranked by life expectancy at birth, the percentage of residents living in poverty is also included for reference. Color-coding highlights indicators that scored in the top 10 in green; and those in the bottom 10 in red. At a glance, it is clear that green dominates the upper region of the table, where the key drivers of opportunities for health are highest and clustered, and life expectancy is highest. Similarly, red is clustered at the bottom, where the key drivers of opportunities for health are low and life expectancy is lowest. This demonstrates interconnected pathways and the strength of cumulative impacts of opportunities for health along a continuum—both positive and negative.

Table 1: Differential Opportunities for Health – Sample Indicator Summary (1 of 2)

Table 1: Differential Opportunities for Health in DC

Selected Indicator Summary*

Notes: **Ranked by Life Expectancy at Birth for 45 Statistical Neighborhoods with available data (6 omitted = suppressed data)*

Opportunity Measure Selected Indicator: Score in Top 10 Score in Bottom 10

Education | Employment | Income | Housing | Transportation | Food Environment | Medical Care | Community Safety

Statistical Neighborhoods **Ranked by Life Expectancy at Birth*	Life Expectancy at Birth (2011-2015)	Residents *(25 years or older)* with high school diploma or higher (2011-2015) (%)	Residents *(16 years or older)* Unemp-loyed (2011-2015) (%)	Median Household Income (2011-2015) (%)	Household Gross Rent 35% or more of Income (2011-2015) (%)	Household Without a Car/Transit Dependent (%)	Household Receiving Public Assistance Income or SNAP *(past 12 months)* (%)	Population with Public Insurance Coverage (%)	Age-adjusted Violent Deaths Rate - per 100,000 population (2011-2015)	Residents Living in Poverty (2011-2015) (%)
1. Woodley Park	89.4 years	97.8%	2.5%	$139,744	25.8%	26.1%	2.5%	16.4%	9.9	6.6%
2. Cathedral Heights	88.8 years	96.8%	3.9%	$90,124	44.5%	22.8%	0.8%	15.8%	5.1	15.8%
3. Kent /Palisades	88.4 years	97.9%	5.9%	$161,252	*Data Supp.*	9.3%	0.6%	17.4%	7.4	9.3%
4. Tenleytown	87.3 years	98.7%	2.4%	$136,641	39.0%	19.3%	2.1%	18.5%	1.1	4.5%
5. Forest Hills	87.2 years	99.1%	3.5%	$113,269	33.7%	33.7%	1.3%	17.9%	13.0	9.2%
6. Georgetown East	86.9 years	98.9%	3.1%	$132,021	33.9%	39.5%	1.0%	13.2%	5.7	10.3%
7. Barnaby Woods	86.5 years	98.9%	2.8%	$200,031	*Data Supp.*	*Data Supp.*	0.0%	16.0%	2.6	1.7%
8. Capitol Hil	86.2 years	98.1%	3.2%	$121,668	19.0%	28.1%	1.6%	13.7%	10.5	5.7%
9. Adams Morgan	85.1 years	95.9%	5.0%	$96,194	27.0%	45.9%	3.6%	15.2%	8.4	7.2%
10. Shepherd Park	83.4 years	93.2%	11.7%	$102,053	*Data Supp.*	*Data Supp.*	7.8%	35.9%	5.4	11.0%
11. Chevy Chase	83.3 years	94.1%	3.9%	$115,697	*Data Supp.*	*Data Supp.*	5.5%	18.7%	2.1	8.5%
12. U Street/Pleasant	81.9 years	88.9%	7.2%	$94,614	32.6%	42.8%	10.9%	20.0%	9.6	12.0%
13. Michigan Park	81.6 years	85.8%	16.2%	$57,943	44.5%	19.6%	17.4%	37.9%	3.2	12.3%
14. Lamond Riggs	81.0 years	89.2%	15.2%	$67,745	*Data Supp.*	22.6%	11.7%	46.1%	29.2	8.9%
15. Logan Circle/Shaw	81.0 years	90.7%	3.5%	$94,043	29.4%	51.4%	5.4%	18.5%	16.9	10.9%
16. Brightwood	80.6 years	84.3%	8.7%	$66,395	40.7%	20.2%	11.3%	40.8%	10.1	12.7%
17. Columbia Heights	79.8 years	79.4%	6.7%	$70,554	35.8%	48.2%	18.1%	38.8%	17.8	16.7%

Table 1: Differential Opportunities for Health – Sample Indicator Summary (2 of 2)

18. 16th St. Heights	79.8 years	82.8%	8.0%	$75,848	40.7%	29.4%	14.9%	35.9%	14.8	12.9%
19. Woodbridge	79.4 years	92.7%	13.8%	$85,947	*Data Supp.*	*Data Supp.*	9.6%	36.3%	23.5	10.5%
20. Edgewood	79.4 years	83.8%	19.7%	$41,171	43.4%	45.9%	29.8%	47.0%	25.0	29.1%
21. S. Columbia Hgts.	79.4 years	89.8%	8.2%	$82,241	35.6%	47.8%	14.2%	31.2%	11.9	13.5%
22. Mt. Pleasant	79.3 years	89.4%	5.3%	$71,837	34.7%	47.5%	10.6%	23.5%	7.8	11.5%
23. Petworth	79.0 years	86.3%	11.9%	$77,020	43.9%	24.3%	17.7%	36.4%	21.8	13.2%
24. SW/Waterfront	78.4 years	93.5%	6.7%	$76,429	31.4%	38.3%	11.2%	29.0%	27.1	13.5%
25. Union Station	78.3 years	94.5%	5.3%	$110,907	31.5%	28.3%	5.4%	14.6%	11.7	10.4%
26. Chinatown	77.9 years	88.8%	5.3%	$82,789	32.6%	52.9%	13.0%	33.1%	18.7	18.3%
27. Hill East	77.5 years	91.7%	8.8%	$92,617	32.2%	26.4%	15.0%	31.8%	14.9	13.6%
28. Kingman Park	77.3 years	91.7%	8.3%	$91,073	35.4%	25.1%	13.7%	28.3%	24.5	12.2%
29. Brightwood Park	76.8 years	86.7%	10.3%	$61,476	*Data Supp.*	31.2%	13.6%	41.5%	15.0	16.3%
30. Brentwood	76.7 years	86.9%	14.8%	$61,739	37.5%	28.3%	25.4%	48.5%	38.3	18.7%
31. Fort Lincoln/Gateway	75.9 years	81.3%	13.6%	$51,454	41.6%	22.5%	22.3%	52.4%	23.8	19.0%
32. Bloomingdale	75.8 years	90.9%	8.6%	$87,146	35.7%	26.6%	12.9%	24.3%	21.2	12.3%
33. Fort Dupont	75.0 years	81.6%	23.8%	$35,545	57.9%	49.2%	36.7%	64.6%	48.1	30.6%
34. Twining	74.5 years	87.8%	16.3%	$47,486	52.4%	33.1%	30.3%	55.7%	57.1	20.9%
35. Bellevue	74.4 years	82.9%	30.0%	$32,562	52.1%	54.4%	43.4%	67.7%	33.1	39.6%
36. Eastland Gardens	73.4 years	79.4%	21.3%	$31,333	57.4%	45.6%	37.5%	66.0%	40.6	34.1%
37. Lincoln Heights	72.6 years	80.7%	20.6%	$36,577	48.8%	41.6%	32.7%	63.5%	58.5	26.2%
38. Naylor/Hillcrest	72.5 years	84.1%	16.6%	$37,771	44.4%	38.7%	32.7%	57.8%	31.5	34.5%
39. Marshall Heights	72.4 years	84.4%	19.6%	$43,043	39.9%	40.9%	39.4%	58.7%	46.8	29.2%
40. Washington Highlands	72.4 years	*Data Supp.*	*Data Supp.*	$28,468	*Data Supp.*	44.7%	*Data Supp.*	*Data Supp.*	36.3	38.7%
41. Douglass	71.8 years	81.7%	22.6%	$31,319	50.4%	49.8%	53.9%	67.4%	48.6	36.7%
42. Congress Heights/Shipley	71.8 years	82.4%	26.8%	$28,711	55.2%	47.2%	41.3%	62.3%	50.0	39.4%
43. Trinidad	70.8 years	79.9%	18.0%	$36,655	48.4%	46.7%	31.0%	50.9%	47.6	28.5%
44. Historic Anacostia	70.2 years	83.2%	14.9%	$28,790	59.6%	48.0%	43.7%	61.7%	52.4	37.3%
45. St. Elizabeth's	68.4 years	*Data Supp.*	18.1%	$25,311	43.8%	51.3%	*Data Supp.*	70.1%	65.4	40.2%
District of Columbia	**79.0 years**	**89.3%**	**9.6%**	**$70,848**	**39.8%**	**36.4%**	**15.6%**	**35.1%**	**19.5**	**18.0%**
United States	**78.8 years**	**86.7%**	**8.3%**	**$53,889**	**42.7%**	**9.0%**	**13.9%**	**32.1%**	**na.**	**15.5%**

CONCLUSION: Leveraging the Key Drivers to Promote Opportunities for Health

Opportunities for health are created primarily outside of the health care and traditional public health systems. Differential opportunities for health are the result of a much broader spectrum of societal structural and institutional norms, laws, policies, and practices. None is permanent, nor set in stone. With political will, all are amenable to change.

Because of their individual impact, but especially given their interconnectedness, the nine key drivers provide the main framework that collectively engineer how health is created outside of traditional health care and public health. Together, they illustrate the importance of *social and structural determinants,* which, intentionally or otherwise, produce persistently inequitable health outcomes. Overall, as a result of the interplay of multiple socio-demographic contextual factors, including the District's historic and contemporary segregated residential geography, years of life expectancy vary across the District's 51-statistical neighborhoods by 21 years. As shown, this patterning is repeated across all the social determinants of health, underscoring differential opportunities for health by income and place, as well as by race, as a root cause of inequities.

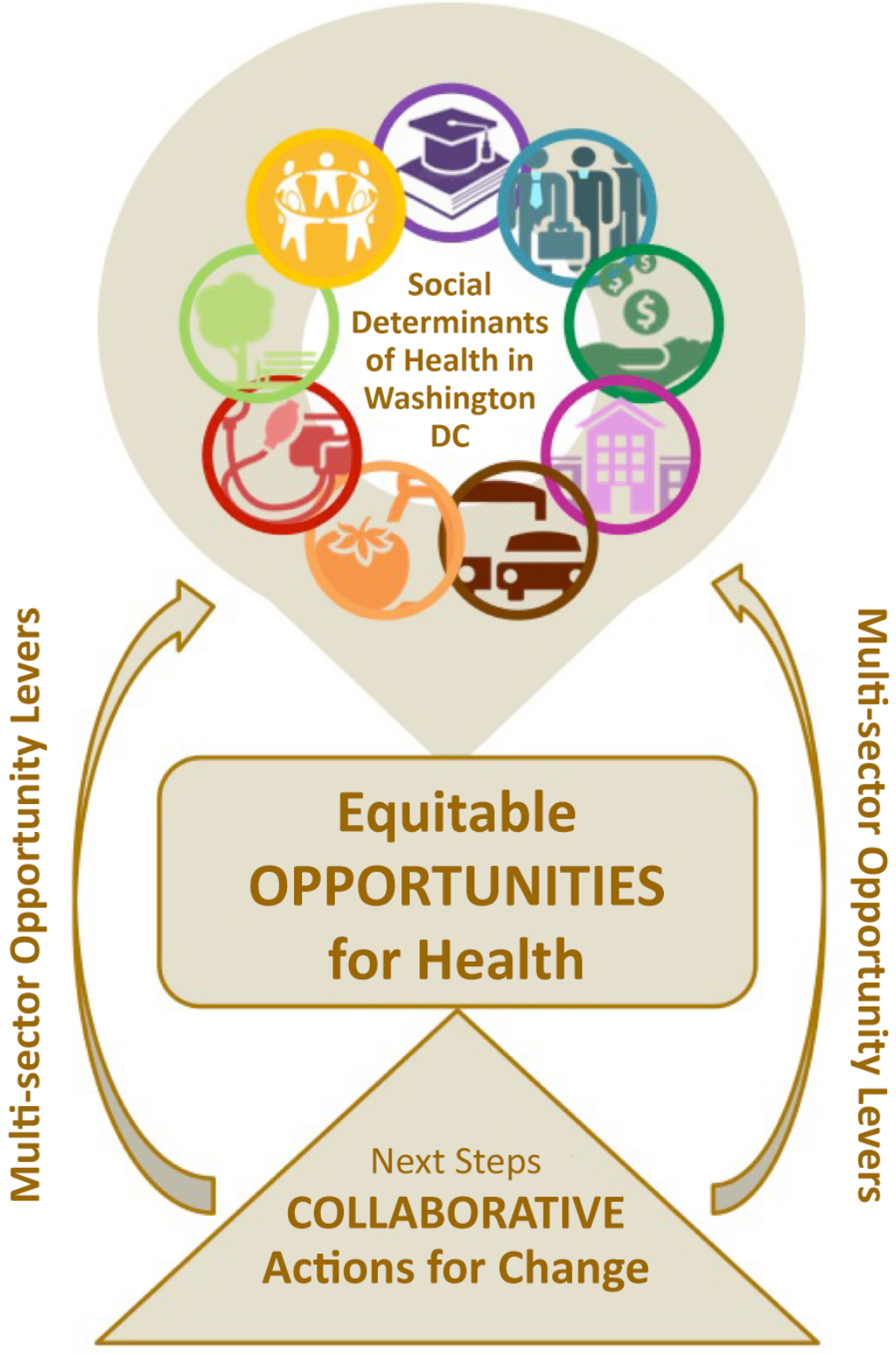
Equitable community health improvements will not be achieved by the health care system or public health working in a vacuum. Because 80% of community health outcomes are created outside of the traditional health care system, a multifaceted Health-In-All-Policies approach (APHA, 2013)[46] (CDC, n.d.)[47] is essential to improving the health of all District residents, including achieving health equity. The data and visualizations presented show the interconnectedness of things. They underscore the importance of working within and across all sectors, in simultaneous and complementary ways, to improve opportunities for health and achieve health equity. This is consistent with the Social Determinants of Health Strategy (SDH-I) in the DC Healthy People 2020 Framework (2016)[48], which recommends: "Increase multi-sector public, private, and non-profit partnerships to further population health improvement through a coordinated focus on the social determinants of health and health equity."

Finally, it should be noted that this report is a conversation starter. It must lead to collaborative action for change. The compelling advantage of promoting health equity by tackling underlying socioeconomic inequities across the key drivers of opportunities for health is that the benefits of building a **healthy community**[49] extend well beyond health. As an example, one model describes a healthy community as follows:

> *A healthy community is one that strives to meet the basic needs of all residents; it is guided by health equity principles in decision making; it empowers organizations and individuals through collaboration, [and] civic and cultural engagement for the creation of safe and sustainable environments. Vibrant, livable, and inclusive communities provide ample choices and opportunities to thrive economically, environmentally and culturally, but must begin with health.* [49]

Leveraging the Key Drivers Towards Equitable Opportunities

Figure 16: Collaborative Actions For Change/Multi-Sector Opportunity Levers



Looking Ahead: Collaborative Actions for Change

Equity-informed collaborative actions for change must be cognizant of how historical and contemporary policies, programs, and practices, including laws, produce inequities in health outcomes. Proactive multi-sector solutions are essential to meaningful transformational change. A conceptual framework for leveraging the key drivers towards equitable opportunities for health is presented in **Figure 16.**

We must break out of silos, deploying the following collaborative actions for change*:
**These actions are based on a subset selected from Prevention Institute (2016)*[50]

- ✓ Recognize that eliminating inequities provides a huge opportunity to invest in community. Inequity is not acceptable, and everyone stands to gain by eliminating inequity.
- ✓ Develop a multifaceted Health-In-All-Policies approach, in order to improve the health of all District residents, including achieving health equity.
    - Work across multiple sectors of government and society to make necessary structural changes. Such work should be in partnership with the community in pursuit of a more equitable society.
    - Understand and account for the historical forces that have left a legacy of racism and segregation, as well as structural and institutional factors that perpetuate persistent inequities. The only way to truly discard this legacy is to craft a new one, built on a shared vision for equity.
    - Adopt an overall approach that recognizes the cumulative impact of multiple stressors and focuses on changing community conditions, not on blaming individuals or groups for their disadvantaged status.
    - Acknowledge the cumulative impact of stressful experiences and environments. For some families, poverty lasts a lifetime and even crosses generations, leaving family members with few opportunities to make healthful decisions. This includes continued exposure to racism and discrimination that may in and of itself exert a great toll both on physical and mental health.
- ✓ Develop equity goals and measure and monitor the impact of social policy on health to ensure goals and improved outcomes are being accomplished. Monitor changes in health equity over time and place to help identify the impact of adverse policies and practices.

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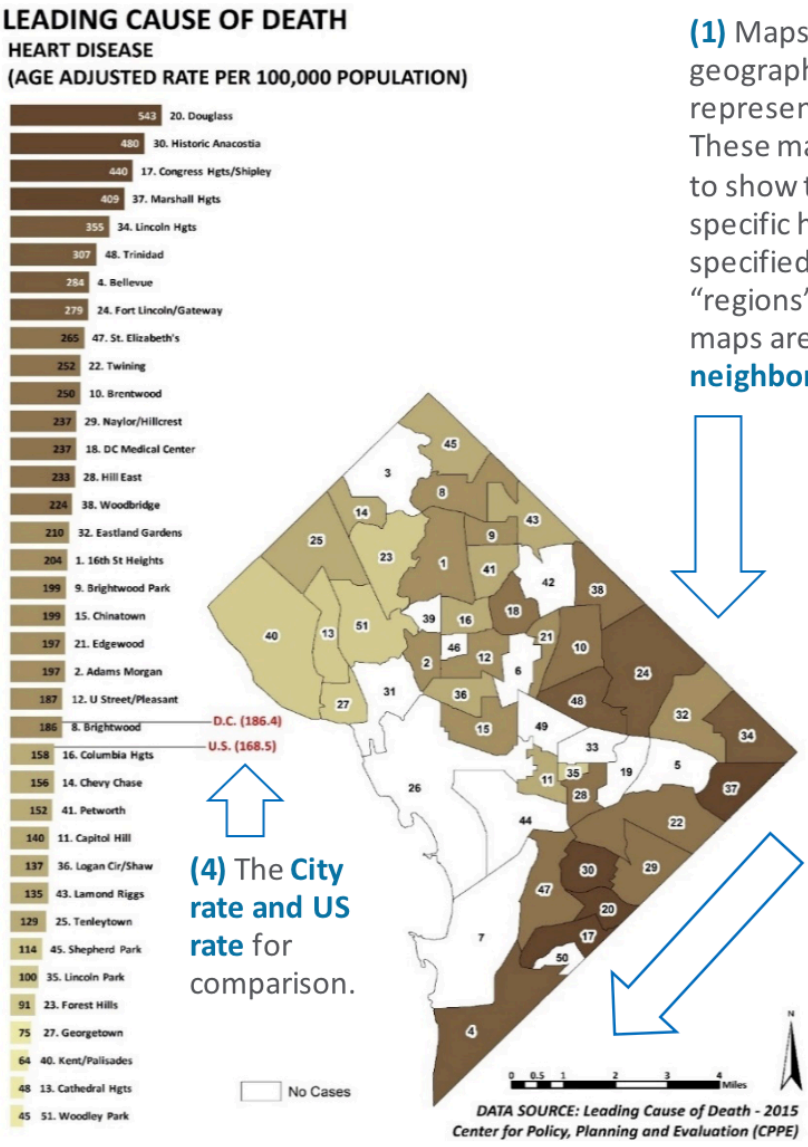
Guide to Reading the Health Equity Report Maps

Appendix: How to Read Report Maps

The following is a brief description of the different components of the maps appearing in this volume.

Note: Thematic maps are not analyzed for differences of statistical significance, and provide visually comparisons only. Caution should be applied with interpretation of thematic maps. Data has been suppressed due to high margin of error values (greater than .10)

(2) The **title/subtitles** of the maps detail the specific topic being shown.



(1) Maps provide geographical representation of data. These maps are produced to show the gradation of specific health topics by specified region. The "regions" defined in the maps are either **neighborhoods** or **wards**.

(3) The **legend** shows the numeric values graphed on the map. These numbers can be rates or percentages.

The legend may also indicate if there is suppressed data or no cases.

For example, in this map, there are age-adjusted rates on the vertical bars, names of neighborhoods, corresponding color code and an indication of some neighborhoods with no cases.

(4) The **City rate and US rate** for comparison.

(6) The **scale** provides a comparable measure of the size of the image. The **north arrow** provides direction.

(5) The **data source** for the map is detailed here.