



**Partners for a Healthier  
Community, Inc.**



# Springfield Health Equity Report

Looking at Health through Race and Ethnicity

October 2014



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**About Partners for a Healthier Community:**

Partners for a Healthier Community (PHC) is a 501(c)(3) non-profit organization based out of Springfield, MA whose mission is to build measurably healthy communities with equitable opportunities and resources for all through civic leadership, collaborative partnerships, and policy advocacy. PHC is committed to improving the public's health by fostering innovation, leveraging resources, and building partnerships across sectors, including government agencies, communities, the health care delivery system, media, and academia.

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## Acknowledgements

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Partners for a Healthier Community Board Research and Evaluation Committee

Figure 1: Dahlgren G, Whitehead M (1993). Tackling inequalities in health: what can we learn from what has been tried? Working paper prepared for the King's Fund International Seminar on Tackling Inequalities in Health, September 1993, Ditchley Park, Oxfordshire. London, King's Fund, accessible in: Dahlgren G, Whitehead M. (2007) European strategies for tackling social inequities in health: Levelling up Part 2. Copenhagen: WHO Regional office for Europe: [http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0018/103824/E89384.pdf](http://www.euro.who.int/__data/assets/pdf_file/0018/103824/E89384.pdf)

Figure 2: University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps 2014. <http://www.countyhealthrankings.org>

Figure 3: City of Portland Office of Equity and Human Rights, <https://www.portlandoregon.gov/oehr/article/449547>

Figures 4, 5, 9: Jane Garb, Biostatistician, Baystate Health Epidemiology and Biostatistics Research Core.

Figure 8: 8 Kirwan Institute Center for the Study of Race and Ethnicity, [http://kirwaninstitute.osu.edu/reports/2009/01\\_2009\\_GeographyofOpportunityMassachusetts.pdf](http://kirwaninstitute.osu.edu/reports/2009/01_2009_GeographyofOpportunityMassachusetts.pdf)

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### **Health Equity Solutions Planning:**

PHC will be convening a process in early 2015 to discuss this report and solutions to improving health equity in Springfield and the region. To learn more and participate in this process, sign up at [www.partnersforahealthiercommunity.org/health-equity](http://www.partnersforahealthiercommunity.org/health-equity)

## Letter from the Executive Director

Dear Colleagues:

I am pleased to present Partners for a Healthier Community's (PHC) first health equity report. This report focuses on racial and ethnic health equity as part of PHC's strategic goal to "Advance Racial Justice."

Partners for a Healthier Community was established in 1996 as a non-profit public health organization. Our mission is "to build measurably healthy communities with equitable opportunities and resources for all through civic leadership, collaborative partnerships, and policy advocacy." PHC recently became a member organization of the National Network of Public Health Institutes (NNPHI), as PHC's work reflects the Public Health Institute model of promoting multi-sector activities to improve public health and health care structures, systems, and outcomes.

PHC is known for its capacity to bring people together and support cross-sector strategic partnerships; create and advocate healthy public policy; and advance new designs for population-based public health and health care delivery systems. As part of our recent strategic planning process, we took into account feedback from many of you about the need for accessible community data. This report is reflective of that request. It also reflects the development of our new focus area, again, based on what we heard as a need from the community - Community Research and Evaluation.

This Health Equity Report provides data on racial and ethnic disparities in health and provides context for some of the observed inequities. As you will see, too many of our community members of color are experiencing disproportionately poor health. Racial and ethnic disparities in health must be understood within the structural, social, and cultural contexts of people's lives, including the effects of structural racism on all people regardless of skin color. According to the World Health Organization, the resolution of these health disparities is to be found in social justice actions. "Social justice is a matter of life and death. It affects the way people live, their consequent chance of illness, and their risk of premature death."

The goal of this report is to promote a dialogue about the racial and ethnic health inequities that exist, why they exist, and challenge us to think and act on solutions. It supports current and ongoing initiatives to address racial and ethnic health inequities, including anti-racism dialogue occurring among several groups in the Pioneer Valley and among Springfield residents. This report was also created to guide regional providers, community health practitioners and policymakers in examining and refreshing their understanding of race and ethnicity in health.

We invite you to join Partners for a Healthier Community in developing the requisite responses for eliminating racial and ethnic disparities in health in our region.

How does this report resonate with you? What did we miss? Please find the report at the following link: [www.partnersforahealthiercommunity.org/health-equity](http://www.partnersforahealthiercommunity.org/health-equity)

Sincerely,



Frank Robinson, Ph.D.  
Executive Director



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# Understanding Health Equity

## Why focus on Health Equity in Springfield?

Large differences in health exist in our society with low-income people, communities of color, and other vulnerable populations experiencing disproportionately poorer health. For example, national level data shows that people with higher income and higher levels of education generally have better health.<sup>1</sup> Similarly, health inequities occur for some communities of color, with some persisting even after taking into account socioeconomic status, likely due to racial discrimination among other factors.<sup>2</sup>

As you will see in the data presented in this report, large health inequities exist among Springfield residents when compared to the state as a whole. When examining through a lens of race and ethnicity, Springfield Black and Latino residents experience disproportionately poorer health outcomes.

To make strides toward reducing these large health disparities, it is important to understand the factors that contribute to them. The following sections provide an overview of the factors that contribute to health and the inequities that exist in Springfield. By understanding how these factors contribute to health, we - both as individuals and as a community - can more effectively address health disparities experienced by communities of color, low-income people, and other vulnerable populations (e.g. people with disabilities; gay, lesbian, transgender individuals).

## The Role of Social and Economic Factors in Determining Health

Numerous factors affect our health—everything from where we work and live to our level of education and our access to healthy food and water (see Figure 1). It is estimated that less than a third of our health can be accounted for by our biological make-up or genetics.<sup>3</sup>

**Our health is largely determined by the social, economic, cultural, and physical environments we live in.**

The County Health Rankings, published annually by the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, rank **social and economic** determinants of health as having the greatest impact (40%) among these modifiable health determinants, followed by health behaviors (30%), clinical care (20%), and the physical environment (10%) (Figure 2).<sup>4</sup>

Many of the health inequities experienced by communities of color, low-income people, and other vulnerable populations are due to inequities in these determinants. These inequities are often rooted in a history of discrimination at the individual, institutional, and structural levels. “Compared to white, middle and upper-income communities, they have less economic, educational, and housing opportunity, and they have less access to health care, healthy foods, transportation, and other essential goods and services.” Despite laws prohibiting overt discrimination, racism, classism and other forms of discrimination continue to exist as embedded societal and economic structures.

Racial residential segregation is an example of how a discriminatory policy continues to have negative effects even after the policy that created it is no longer in place. Harvard Professor Dr. David Williams describes racial residential segregation as one of the most damaging forms of racism on health in our society today. “The neighborhoods where minority children live have lower incomes, education, and home ownership rates and higher rates of poverty and unemployment compared with those where White children reside.” Restricted opportunity in these neighborhoods and differences in socioeconomic status affect health.<sup>6</sup>



**Figure 1: Determinants of Health**

Source: Dahlgren and Whitehead. 1993

## Equity in Health

**Health equity is an issue of justice.** It is about eliminating health differences that are “not only unnecessary and avoidable but, in addition, are considered unfair and unjust.”<sup>7</sup>

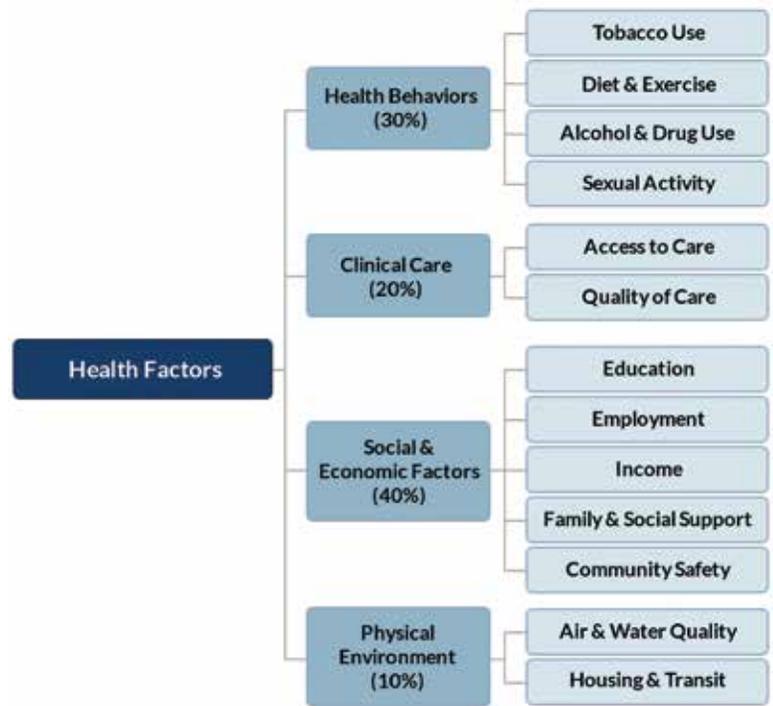
Equality means treating everyone the same. However, given the history of discrimination and unjust societal structures, a one-size-fits-all model to health will not eliminate these avoidable, unjust health disparities. Extra efforts must be made to “right” the injustices if we are to reduce the burden of poor health experienced by communities of color and other vulnerable communities. Figure 3 from the City of Portland’s Office of Equity and Human Rights illustrates how equity and not equality reaches the end goal of justice.

## Improving Health in Springfield through Opportunity

The Kirwan Institute Center for the Study of Race and Ethnicity has created an “Opportunity Communities” model that considers health within the context of the factors that are central to one’s life and community, including “housing, education, jobs, transportation, health, and engagement.”<sup>8</sup> In order to close the gap in health disparities, including those experienced by Springfield’s Black and Latino residents, the underlying social, economic, and physical environment must be considered so that we can create opportunities for people to live healthy lives. A full-scale supermarket located in a food desert (see page 11) is such an opportunity that would directly affect health by providing ready access to fresh fruits and vegetables. This would allow people to incorporate healthy eating into their daily life. Similarly, a well-designed environment with places to exercise can foster a sense of physical and social order, create a sense of ownership and safety among residents, and go a long way toward creating opportunities to address weight management and support chronic disease self-management. Opportunity for jobs and a living wage go hand-in-hand with healthy finances and a healthy lifestyle. As Springfield has been identified as a city with low levels of opportunity, which you will read later in this report (pg. 10), it is vital that we create opportunities such as these in Springfield.

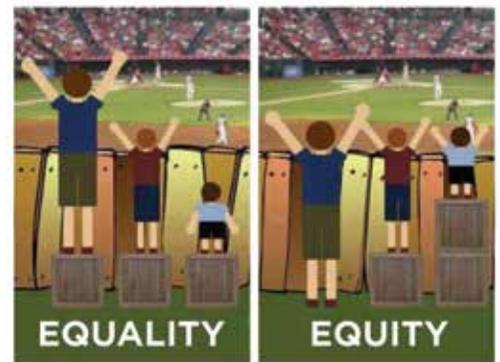
## Where Do We Go from Here?

The Kirwan Institute recommends “a fair investment in all people and neighborhoods to improve the life outcomes of all citizens.” Our hope is that the following information on health determinants and health status in Springfield will stimulate discussion about solutions that address root causes of health disparities and promote fair investments, so that we can address these factors that are vital to health. Please consider potential solutions as you read this report. Join us in learning, understanding, and finding solutions to improve health equity together.



**Figure 2: County Health Rankings Model – Health Factors**

Source: County Health Rankings



**Figure 3: Equality is Not the Same as Equity**

Source: Office of Equity and Human Rights, City of Portland

## Health Equity in Springfield through Race and Ethnicity

The following sections examine health equity in Springfield with a focus on race and ethnicity. Key factors that impact health in Springfield (health determinants) are discussed, followed by a description of health status. We recognize that many communities of color experience health inequities that are important to address. For the purposes of this report, we focus specifically on Blacks and Latinos because they are known to experience some of the largest racial and ethnic health disparities nationwide, they make up the majority of Springfield's population (62%), and data was limited for other racial/ethnic groups.

### Key Factors Impacting Health in Springfield

#### Springfield Overview

Springfield (pop. 153,557)(U.S. Census Bureau, American Community Survey [ACS], 2012) is the 3rd largest city in Massachusetts, the 4th largest city in New England, and the largest city in the Springfield Metropolitan Statistical Area (MSA)(pop. 658,657), which consists of Hampden, Hampshire, and Franklin counties. Springfield is nicknamed the City of Homes for its beautiful stock of Victorian homes, and the City of Firsts, as it is the birthplace for numerous innovations, including the first gasoline powered automobile and basketball. Once a thriving city with a strong manufacturing base driving the economy, Springfield experienced an economic decline in the 1960s due to the struggles of the manufacturing industry at a national level.<sup>9</sup> These economic challenges have continued into the present day. Numerous efforts are underway to revitalize the City and foster economic development.



**Figure 4: Springfield Neighborhoods**

Baystate Health Epidemiology and Biostatistics Research Core.  
Data Source: Pioneer Valley Planning Commission, City of Springfield

The City of Springfield consists of 17 neighborhoods (Figure 4). The neighborhoods of McKnight, Upper Hill, Bay, and Old Hill are often collectively referred to as Mason Square, and Brightwood and Memorial Square make up the North End.

#### Springfield Demographics

Springfield is a diverse, culturally rich, multi-ethnic city with people of color accounting for the majority (66%) of its population. Among people of color, an estimated 43% of Springfield's population is Latino, 19% is Black, and 2% is Asian (U.S. Census Bureau, ACS, 2012). Puerto Ricans make up the vast majority of the Latino population (82%). Among school-age children, children of color make up an even greater proportion of the population with 62% Latino, 20% Black, 3% Asian and only 12% of the population White (Massachusetts Dept of Elementary and Secondary Education, 2013-2014). Figure 5 illustrates the racial and ethnic make-up of Springfield neighborhoods using data from the City of Springfield's 2013 Impediments to Fair Housing Report.<sup>10</sup> The integration categories are based on a Pioneer Valley Planning Commission analysis of the integration of Springfield neighborhoods that was conducted using the Urban Institute's integration typology of neighborhoods. As can be seen, the majority of Springfield neighborhoods fall under the Urban Institute's category of "majority minority," indicating that 50-90% of the

population in these neighborhoods are people of color. Four neighborhoods were found to have populations consisting almost entirely of people of color and were designated “predominantly minority” (greater than 90% people of color) (Memorial Square, Brightwood, Old Hill, McKnight).

Springfield has a substantial immigrant and migrant population. An estimated 10% of Springfield’s population are foreign-born and 18% of the population are migrants from Puerto Rico (U.S. Census Bureau, ACS 2012). Among foreign-born residents, the largest immigrant group is Vietnamese, in addition to significant immigrant populations from Central and South America, Eastern Europe, and Eastern Africa.<sup>10</sup> As a result of this large immigrant and migrant population, 41% of the Springfield population speaks a language other than English, and 17% speak English “less than well,” with the majority of those facing language barriers being primarily Spanish speaking (81%) (U.S. Census Bureau, ACS 2012).

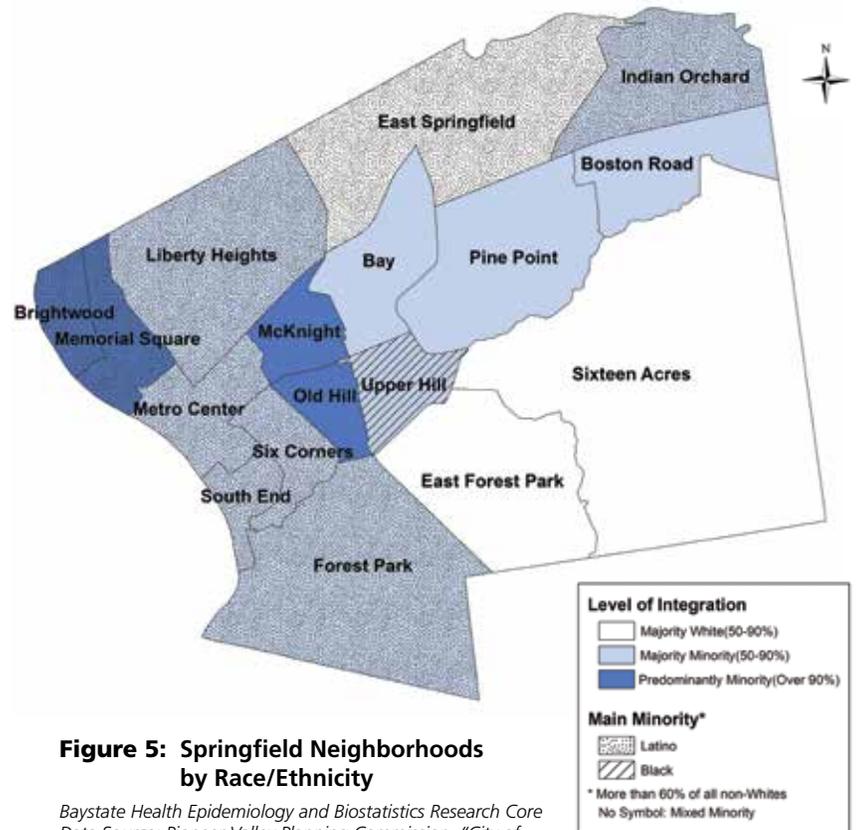
Springfield’s population is younger than that of the state with a median age of 33 years (Massachusetts median age=40 years) and 40% of the population is under the age of 25 (U.S. Census, ACS, 2012). This reflects the large number of families with children in the city.<sup>10</sup> The median age varies substantially in Springfield by race/ethnicity with the lowest median age found among Latinos, at 25 years, and the highest age found among Whites, at 45 years. This difference is reflective of age differences found in the state overall, though these differences are slightly less pronounced at the state level.

### **Factors that Affect the Health of Springfield Residents (Health Determinants)**

Springfield residents experience numerous inequities in factors that impact health. The following provides an overview of some of these factors.

#### **Income and Employment**

Income and wealth are among the strongest determinants of health.<sup>11</sup> A number of factors contribute to health inequities experienced by low-income individuals, including inadequate resources for basic needs that may affect health (e.g. housing, food, transportation, health care), increased likelihood of living in neighborhoods with little access to fresh fruits and vegetables (food deserts), few opportunities for physical activity, and the chronic stress of inadequate resources to support basic needs, among numerous others. Employment is an important factor that affects income and wealth inequities. Employment can affect health through income, but can also directly affect health as studies have shown that lack of job security and unemployment increase risk for mental health conditions (e.g. anxiety, depression), premature mortality, heart disease, and other health conditions.<sup>12</sup>

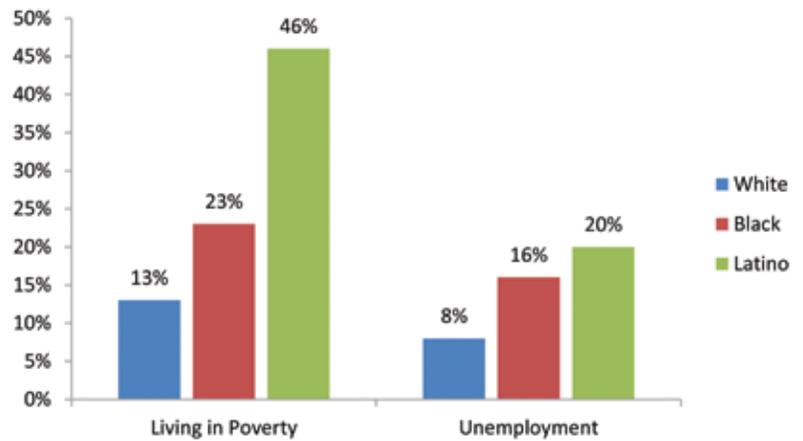


**Figure 5: Springfield Neighborhoods by Race/Ethnicity**

Baystate Health Epidemiology and Biostatistics Research Core  
Data Source: Pioneer Valley Planning Commission, “City of Springfield, Impediments to Fair Housing 2013”  
Note: Main minority is identified if a minority group comprises more than 60% of the non-White population within the neighborhood.

### Income and Employment in Springfield

Springfield households struggle economically with an estimated median household income of \$31,356 in 2012, which is less than half that of the state (\$65,339)(U.S. Census Bureau, ACS, 2012). Springfield experiences high unemployment with a rate of 11% in 2012, which was 64% higher than that of the state (U.S. Bureau of Labor Statistics, 2012). Approximately a third of Springfield residents have an income below the poverty line, with children particularly impacted with almost half (48%) living in poverty in 2012 (U.S. Census Bureau, ACS, 2012). Poverty rates are highest among Latinos, followed by Blacks (Figure 6). Lack of financial resources directly affects ability to access healthcare with an estimated 13% of Springfield residents unable to see a physician due to cost based on data from the Behavioral Risk Factor Surveillance Survey (BRFSS). This is almost double the percentage of people reporting inability to see a physician due to cost in the state overall (MDPH BRFSS, 2009-2011). Racial/ethnic inequities in unemployment also exist with Blacks and Latinos experiencing unemployment rates double or more than that of Whites (Figure 6) (U.S. Census Bureau, ACS, 2007-2011).



**Figure 6: Springfield Poverty and Unemployment Rates by Race/Ethnicity**

Source: U.S. Census Bureau, American Communities Survey, 2006-2010 (poverty) and 2007-2011 (unemployment).

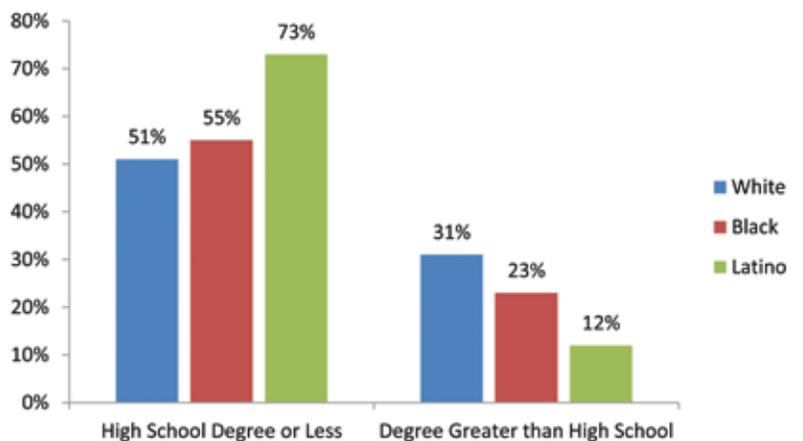
Note: Poverty indicates percent of all residents living in poverty.

### Education

Education is another strong social determinant of health. Education affects income and employment opportunities, and studies also suggest that education may independently affect health after taking into account income.<sup>13</sup>

#### Education Level in Springfield

Education levels are lower in Springfield as compared to the state overall. Among Springfield residents age 25 and older, 24% have a degree greater than high school, as compared to 47% for the state overall (U.S. Census Bureau, ACS, 2012). Among Springfield residents, 55% are estimated to have an education level of a high school diploma (or equivalent) or less, as compared to 36% for the state. Marked differences in education level exist by race/ethnicity in Springfield with Whites having the highest levels of education, followed by Blacks and then Latinos (Figure 7).



**Figure 7: Springfield Education Level by Race/Ethnicity, 2006-2010**

Source: U.S. Census Bureau, American Communities Survey, 2006-2010

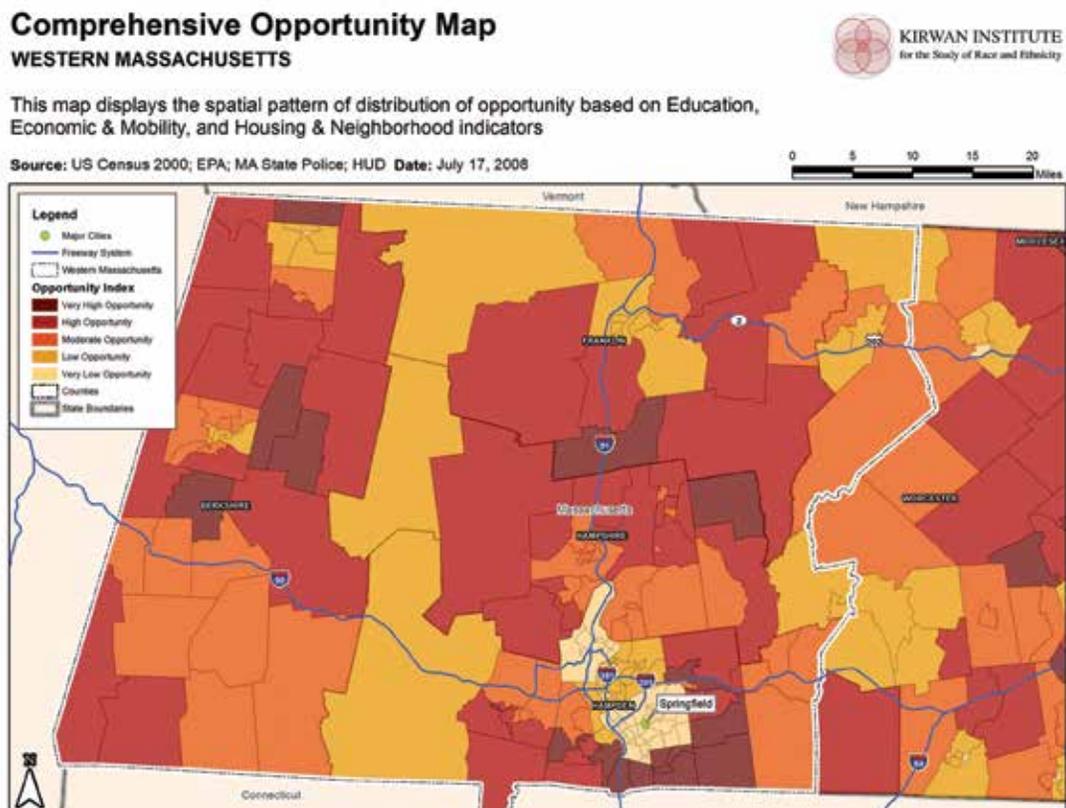
## Housing

Housing can directly and indirectly affect health in many ways. High housing costs can lead families to have to choose between housing or other basic needs. Homelessness and housing instability can affect physical and mental health. Housing conditions can also directly impact some health conditions, such as asthma. Asthma may be triggered by environmental housing conditions, including cigarette smoking. Smoke-free housing policies, which have been adopted in some multi-unit residences and rental units including those of the Springfield Housing Authority, prevent exposure to this environmental factor that impacts health. Unfortunately, adoption of these types of policies is voluntary and many rental property unit owners and multi-unit facilities do not have these policies in place.

Finally, as discussed in the introduction, where people live determines their access to resources and opportunities for good health. The Kirwan Institute Center for the Study of Race and Ethnicity describes “opportunity” as having access to quality education, a safe environment, and employment and wealth building opportunities.<sup>14</sup> Racial residential segregation, a form of institutional racism which continues to exist in many cities and locations throughout the U.S. today, directly affects opportunity for communities of color as these neighborhoods are often lower opportunity neighborhoods.<sup>6</sup>

### Housing Cost Burden in Springfield

Springfield residents struggle with housing costs related to income levels. In 2012, an estimated 51% of residents had a housing cost burden, defined as spending more than 30% of income on housing, which was 25% greater than that of the state overall (U.S. Census Bureau, ACS, 2012). When examining housing cost burden by race and ethnicity among Springfield residents, Latinos experience the greatest housing cost burden at 62%, followed by Blacks (55%) and Whites (42%)(U.S. Census Bureau, ACS 2006-2010).



**Figure 8: Kirwan Institute Opportunity Map of Western Massachusetts**

Source: Kirwan Institute, 2009

## Racial Segregation

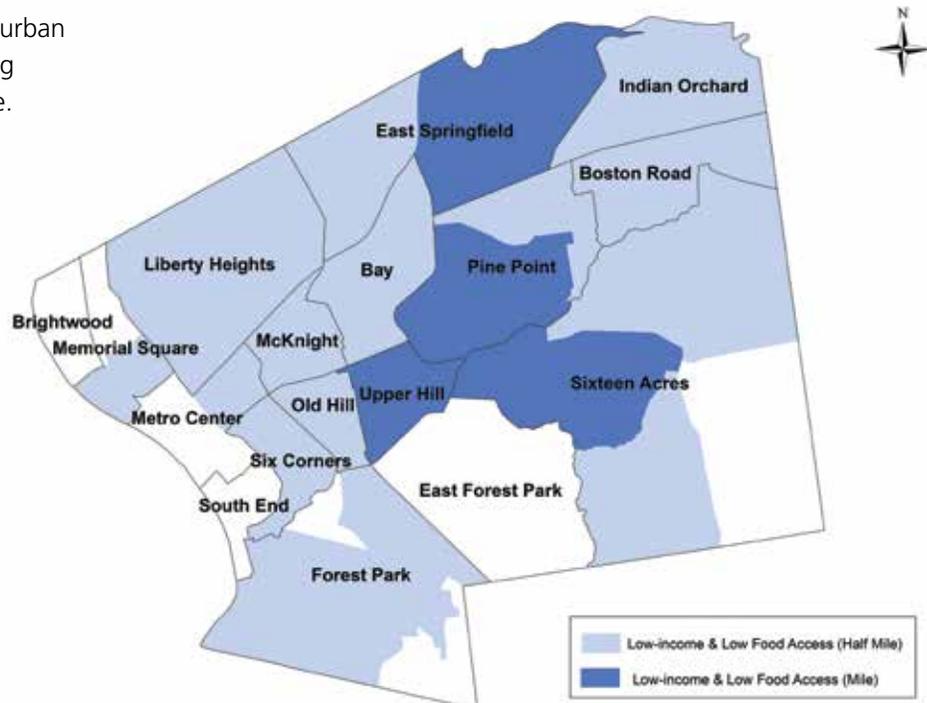
Springfield residents experience racial residential segregation. When considered in the regional context, almost all of the communities directly abutting Springfield are predominantly White (90% or more) and 3 of these communities have the highest median family incomes in the region (Longmeadow, East Longmeadow, Wilbraham).<sup>10</sup> Based on U.S. census data, the University of Michigan's Center for Population Studies ranked the Springfield Metropolitan Statistical Area as **the most segregated in the U.S. for Latino/Hispanics and 22nd in the country for Blacks** in their analysis of dissimilarity, which examines the degree to which people of color are distributed differently than Whites across census tracts.<sup>15</sup>

## Springfield Opportunity Level

As discussed previously in this report, social and economic inequities mean that there is less opportunity for communities of color and other vulnerable populations. The Kirwan Institute conducted opportunity mapping of Massachusetts and categorized levels of opportunity based on education, economic, and neighborhood/housing quality indicators. Figure 8 illustrates their results. As can be seen, Springfield was categorized as a very low opportunity community.<sup>14</sup>

## Food Access

Access to affordable, healthy food is an important determinant of health that contributes to health inequities. Studies have shown that low-income individuals are more likely to live in areas lacking grocery stores and general access to affordable healthy foods,<sup>16</sup> which are sometimes referred to as "food deserts." Figure 9 illustrates Springfield census tracts that are identified by the USDA as "food deserts." The USDA identifies food deserts as census tracts that have a significant low-income population with limited access to a grocery store, which in urban areas was originally defined as living a mile or more from a grocery store. They have expanded this original definition of limited access to include census tracts that are ½ mile from a grocery store, which is also illustrated in Figure 9.



**Figure 9: Springfield Food Deserts**

Baystate Health Epidemiology and Biostatistics Research Core

Data Source: USDA Economic Research Service-Food Access Research Atlas, 2010

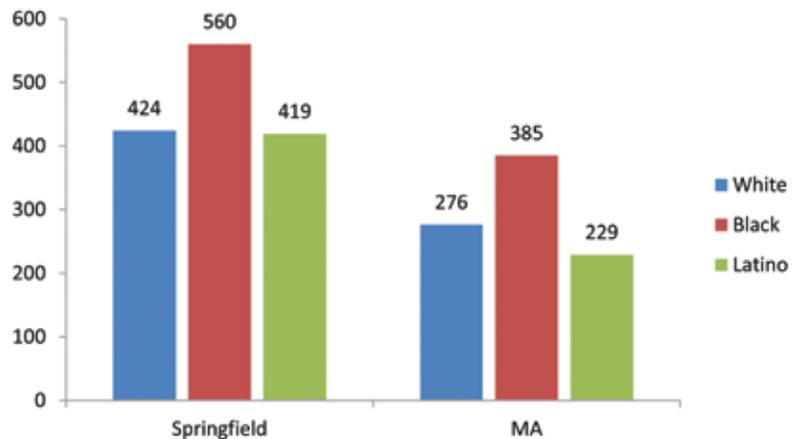
Note: Census tract is low-income if the poverty rate is greater than 20 percent; the tract's median family income is less than or equal to 80 percent of the State-wide median family income; or the tract is in a metropolitan area and has a median family income less than or equal to 80 percent of the metropolitan area's median family income. Low food access indicates the aggregate number of people in the census tract living more than a half mile or mile from a large grocery store is at least 500 or the percentage of people in the census tract with low access is at least 33 percent.

## Health Status in Springfield

Springfield residents experience numerous health inequities when compared to Massachusetts as a whole. Data from the Behavioral Risk Factor Surveillance Survey (BRFSS) estimates that almost two times as many Springfield residents rate their health as less than good (fair or poor) when compared to Massachusetts residents overall (MDPH, BRFSS 3-yr estimate, 2009-2011). Communities of color – particularly Latinos and Blacks – are often disproportionately impacted by these health inequities, and often to a greater extent than in the state overall. The following describes some of these health differences.

### Premature Mortality

The Massachusetts Department of Public Health (MDPH) describes premature mortality as the “best single measure of the health status of a population.”<sup>17</sup> It is a measure of deaths that are considered preventable.<sup>18</sup> With one of the highest premature mortality rates in Massachusetts in 2011, Springfield’s age-adjusted premature mortality rate was 41% higher than that of the state overall (393.6 vs. 278.2 per 100,000). In Springfield and the state as a whole, rates vary by race/ethnicity with Blacks experiencing the highest rates of premature mortality and Latinos experiencing rates comparable or slightly higher than Whites (MDPH, 2010 Mortality Dataset) (Figure 10).

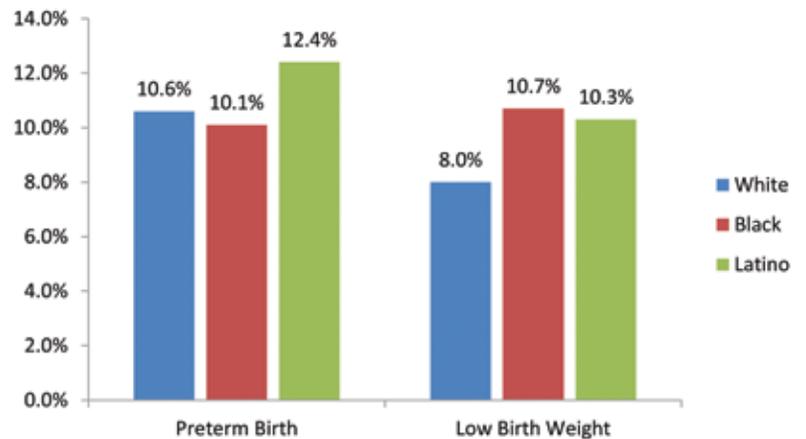


**Figure 10: Age-Adjusted Premature Mortality Rates by Race/Ethnicity, 2010 (per 100,000)**

Source: MDPH, Massachusetts Mortality (Vital Records) Dataset, 2010

### Pregnancy and Birth

Preterm birth (<37 weeks gestation) and low birth weight (<2,500 grams) are among the leading causes of infant mortality and morbidity in the United States and studies suggest that these birth outcomes may impact health throughout childhood and into adulthood.<sup>19,20,21</sup> Springfield has preterm birth (11.5%) and low birth weight (9.8%) rates 35% and 26% higher than that of the state, respectively (MDPH, Birth Dataset, 2010). Slight differences exist by race/ethnicity with Latinos experiencing higher rates of preterm births than Whites, and Latinos and Blacks experiencing higher rates of low birth weight (Figure 11). This may be a contributing factor to the high rates of infant mortality experienced in Springfield when compared to the state overall (9.2 vs.



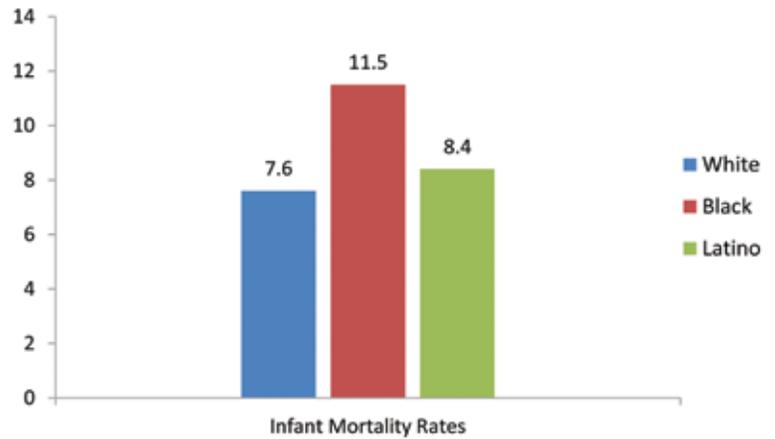
**Figure 11: Preterm Birth and Low Birth Weight in Springfield by Race/Ethnicity, 2010**

Source: MDPH Birth Dataset, 2010

4.4 per 1,000)(MDPH, Mortality Dataset, 2010). When examining infant mortality by race/ethnicity, Black infants experience the highest rates in Springfield (11.5 per 1,000) compared to Whites and Latinos (MDPH, Mortality Dataset, 2008-2010)(Figure 12).

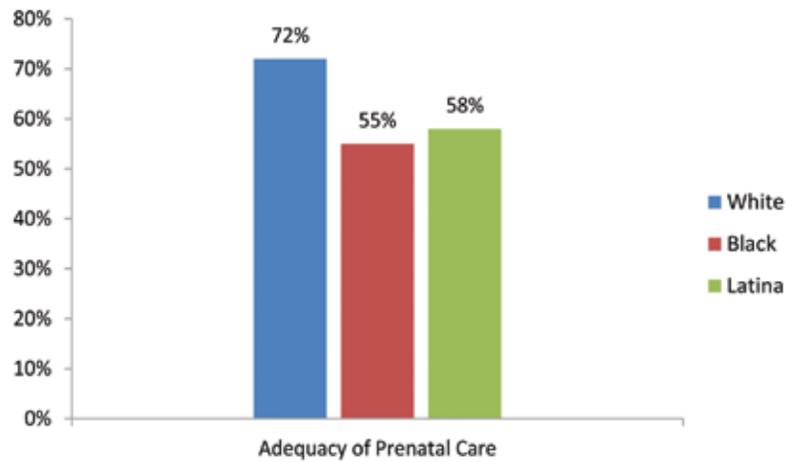
Adequate prenatal care during pregnancy is an important factor that affects both the health of the mother during pregnancy and birth outcomes. In Springfield, among women giving birth in 2010, 61% had adequate prenatal care during pregnancy - which is determined by how early in pregnancy a woman enters prenatal care and the number of prenatal visits over the course of pregnancy - as compared to 80% statewide (MDPH, Birth Dataset, 2010). Differences exist by race/ethnicity, as illustrated in Figure 13. Smoking during pregnancy is another important factor that affects fetal growth and birth outcomes. An estimated 13% of women in Springfield smoked during pregnancy in 2010, which was more than double the rate of the state (6%). Smoking during pregnancy was highest among Whites (18%) and lowest among Latinas (11%)(MDPH, Birth Dataset, 2010).

Teen pregnancy rates are very high in Springfield, with 2010 rates 58% higher than the national average (54.2 vs. 34.3 per 1,000 teen births, aged 15-19 years) (MDPH, Birth Dataset, 2010)(CDC).<sup>22</sup> These high teen pregnancy rates in Springfield are in sharp contrast to the low teen pregnancy rates experienced in the state overall (17.2 per 1,000 teen births, aged 15-19 years), as Massachusetts has one of the lowest teen pregnancy rates in the country. When examining teen pregnancy rates in Springfield by race/ethnicity, the highest rates are found among Latina (84.2 births per 1,000) and Black teens (43.1 per 1,000)(Figure 14).



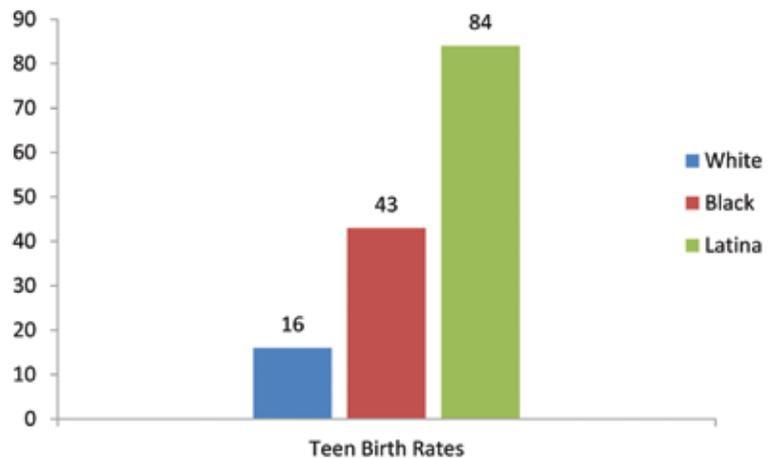
**Figure 12: Springfield Infant Mortality Rates by Race/Ethnicity, per 1,000**

Source: MDPH Mortality (Vital Records) Dataset, 2008-2010



**Figure 13: Adequacy of Prenatal Care in Springfield by Race/Ethnicity**

Source: MDPH, Birth Dataset, 2010



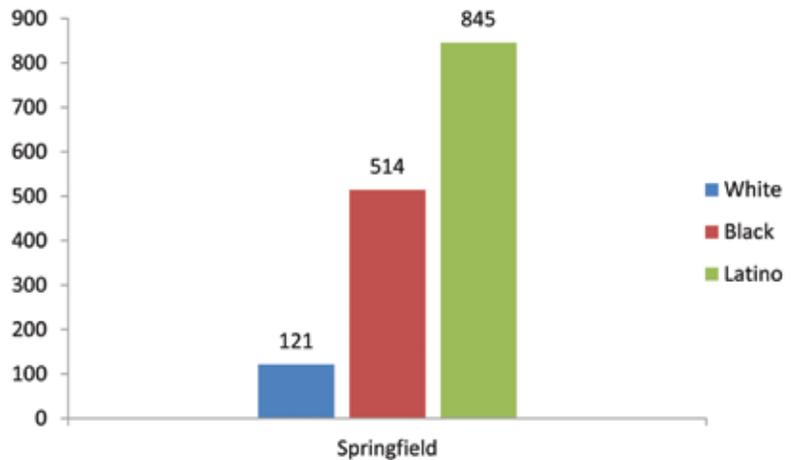
**Figure 14: Springfield Teen Birth Rates by Race/Ethnicity, Age 15-19 years, per 1,000**

Source: MDPH, Birth Dataset, 2010

## Respiratory Health

### Asthma

Asthma is a common chronic respiratory disease that affects the health and quality of life of children and adults, disproportionately impacting some people of color.<sup>23</sup> Children in Springfield experience high rates of asthma with the number of children with asthma estimated at 20% (Springfield School Nursing Department), which is almost double that of the state overall.<sup>24</sup> Adults also experience high rates with an estimated prevalence of 15%, as compared to 10% statewide (MDPH, BRFSS, 2008-2010). Inequities in asthma-related health exist by race and ethnicity among Springfield children with Latino and Black children experiencing hospitalization rates that are 4-7 times higher than White children. Racial/ethnic inequities in asthma hospitalizations are also observed when examining the entire Springfield population, with the highest rates observed among Latinos at a rate slightly less than 4 times that of Whites for both children (Figure 15) and adults (see Appendix 3).



**Figure 15: Springfield Asthma Hospitalization Rates, Children 0-14, per 100,000**

Source: MDPH, Hospitalization Dataset, 2009-2011

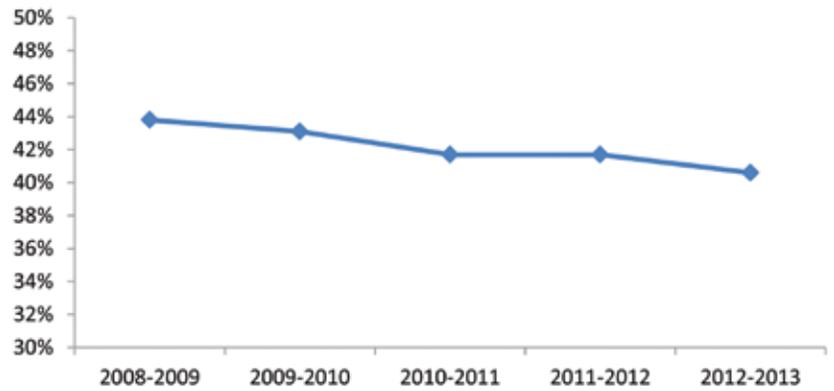
### COPD

Chronic obstructive lung disease (COPD) refers to a set of lung conditions – emphysema, chronic bronchitis or both – where people find it progressively more difficult to breathe due to damage to the lungs that has occurred over a period of time, often as a result of smoking.<sup>25</sup> It primarily affects middle-age and older adults and is a major cause of disability and the third leading cause of death in the U.S.<sup>26</sup> Springfield residents have COPD rates 24% higher than that of the state, with Latinos disproportionately burdened, experiencing age-adjusted COPD hospitalization rates 77% higher than Whites and higher than Latinos in the state overall (Figure 16)(MDPH, Hospitalization Dataset, 2009-2011)(see Appendix 3). Blacks in Springfield experience lower rates than Whites or Latinos, and a lower rate than Blacks in the state overall.

### Obesity

Obesity is a national epidemic and is a major contributor to heart disease, cancer, and diabetes.<sup>27</sup> Springfield children and adults experience obesity rates greater than that of the state overall. An estimated 67% of Springfield adults are overweight or obese, as compared to 59% in the state overall (MDPH, BRFSS, 2008-2010). The MDPH “Status of Childhood Weight in Massachusetts, 2011” report provides information about the number of children that were overweight or obese in Massachusetts as identified through statewide screenings. It found that 41.8% of Springfield children screened were overweight or obese in the 2010-2011 school year (18% overweight, 24% obese), which is almost a third higher than that of the state (32.3%). However, these rates have been declining in Springfield over the past several years (Figure 16). This may in part reflect local efforts to promote healthy eating and physical activity as well as statewide and national efforts to reduce obesity, since state and national levels have been dropping over time as well (Figure 16).

Healthy eating and physical activity are important factors in obesity prevention efforts. Just over a quarter of Massachusetts adults eat the recommended 5 servings of fruits and vegetables a day, with rates slightly lower in Springfield (22%)(see Appendix 1)(MDPH, BRFSS 2-year estimate 2005,2007). In Springfield, an estimated 44% of adults participate in regular physical activity, which is slightly lower than that of the state overall (52%)(MDPH, BRFSS 5-yr estimate 2001, 2003, 2005, 2007,2009).

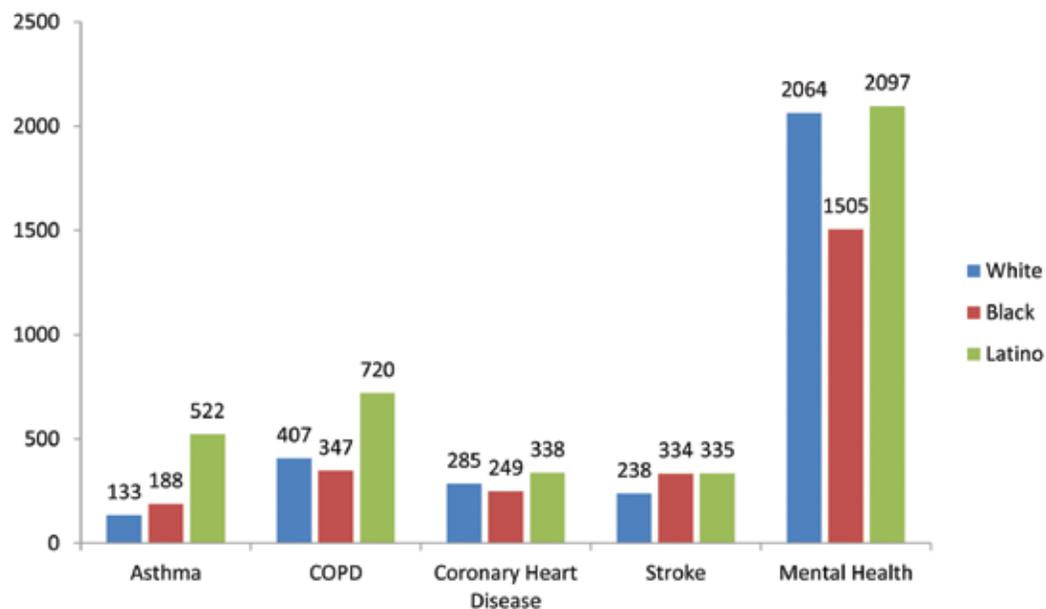


**Figure 16: Percent of Springfield Schoolchildren Overweight or Obese, Grades 1, 4, 7, 10**

Source: Springfield Public Schools, School Nursing Department

## Cardiovascular Disease

Cardiovascular disease includes diseases that affect the heart and blood vessels, including coronary heart disease and stroke. In 2011, heart disease (including coronary heart disease and rheumatic heart disease) was the leading cause of death in Springfield, whereas cancer was the leading cause of death in the state overall.<sup>28</sup> An estimated 7% of Springfield residents have had coronary heart disease or stroke, which is slightly higher than the estimated prevalence in the state overall (6%)(MDPH, BRFSS 3-yr estimate 2008-2010)(see Appendix 2). Springfield hospitalization rates for coronary heart disease are slightly lower than that of the state and stroke rates are slightly higher (see Appendix 3). When examining hospitalization rates among Springfield residents by race/ethnicity, Springfield Latinos experience the highest hospitalization rates for coronary heart disease, and Latinos and Blacks share the highest hospitalization rates for stroke (Figure 17).



**Figure 17: Springfield Age-Adjusted Hospitalizations, per 100,000**

Source: MDPH, Hospitalization Dataset, 2009-2011

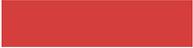
## Diabetes

Diabetes (the vast majority of which is Type 2 diabetes) is recognized as one of the leading causes of death and disability in the U.S. and is a major contributor to heart disease and stroke.<sup>29</sup> The CDC estimates that almost 10% of the population has diabetes, including an estimated 25% that are undiagnosed, and that 35% of the U.S. population age 20 and older has pre-diabetes.<sup>30</sup> CDC estimates also indicate that Latinos and Blacks are diagnosed with diabetes at a rate approximately 70% higher than that of Whites. Based on BRFSS data, an estimated 12% of Springfield adults have diabetes, which is 50% higher than the estimated prevalence in the state overall (MDPH, BRFSS 3-yr estimate, 2008-2010)(see Appendix 2). The BRFSS asks participants to indicate if they have ever been told by a health professional whether they have had diabetes. This is likely an underestimate, given the number of people with undiagnosed diabetes.

## Mental Health

Mental health is often used in reference to mental disorders. However, being healthy mentally is not just the absence of mental disorders, rather “a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community.”<sup>31</sup> Not only is mental health an important component of overall health, but it is also linked to physical health. For example, depression has been found to be associated with the occurrence and treatment of many common chronic diseases, such as cardiovascular disease and asthma, as well as, risk factors for these diseases (e.g. physical activity, smoking, and poor sleep patterns).<sup>32</sup>

Springfield residents experience inequities related to mental health. When examining general mental health, BRFSS data indicates that 15% of Springfield adults reported experiencing poor mental health on 15 or more days in the past month, compared to 9% statewide (MDPH, BRFSS 5-yr estimate 2007-2011). In addition, an estimated 15% have current depression, which is more than double the statewide prevalence of 7% (MDPH, BRFSS 2006, 2008, 2010). Springfield residents also experience more than double the rate of age-adjusted hospitalizations due to mental health conditions than that of the state overall (1950 vs. 865 per 100,000)(MDPH, Hospitalization Data, 2009-2011). When examining by race/ethnicity, Latinos and Whites experience the highest rates of hospitalizations due to mental health conditions in Springfield, whereas Blacks experience the highest rates statewide (Figure 17).



## Conclusion

As can be seen, Springfield residents experience health inequities when compared to the health of residents statewide. In particular, when examining health by race and ethnicity, Black and Latino Springfield residents struggle with disproportionately poorer health outcomes.

As noted in the introduction, we present this information to acknowledge the disproportionate suffering of certain populations and to promote discussion about why these inequities exist and ways to eliminate them. These large health inequities affect not only Springfield residents, but also the region as a whole. To create communities of opportunity and address health disparities, we must join together to create solutions – not just within neighborhoods or the city, but as a region. We must build upon the many examples of local and regional cross-sector collaborations that have shown promise in creating home, community, school, and work environments that promote health for everyone.

We hope you will join us in coming together to improve health equity in our community.

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## Appendices

### Appendix 1: Prevalence of Health Behaviors among Adults in Springfield - BRFSS#

Indicator	Springfield	Massachusetts
<b>Health Behaviors</b>		
Fruits and Vegetable Consumption (5 or more daily)**	22%	27%
Regular Leisure Time Physical Activity ***	44%	52%
Current Smoker***	23%	16%

#Behavioral Risk Factor Surveillance Survey, 2001-2011, with the majority of estimates made using 2008 data or later

\*\*Three years average prevalence among adults in MA

\*\*\*Five years average prevalence among adults in MA

### Appendix 2: Prevalence of Physical and Mental Health Conditions among Adults in Springfield - BRFSS#

Indicator	Springfield	Massachusetts
<b>Physical Health</b>		
Obese (only) **	32%	23%
Overweight or Obese**	67%	59%
Hypertension**	31%	26%
Heart Disease and Stroke**	7%	6%
Asthma**	15%	10%
Diabetes**	12%	8%
Overall Health Status (poor or fair health)**	23%	12%
<b>Mental Health</b>		
Current Depression**	15%*	7%
General Mental Health (15 or more days of poor mental health)***	15%	9%

#Behavioral Risk Factor Surveillance Survey, 2001-2011, with the majority of estimates made using 2008 data or later

\*Prevalence estimate for the community meets one but not both DPH REPORTING RULES. (The estimates have adequate sample size, however, the precision of 95% CI is larger than the allowable requirements). The MDPH states "In order to provide data for more Massachusetts communities, we include town level estimates that may be based on relatively few respondents or have standard errors that are larger than average. The confidence interval (CI) for this community is wider than the normal limits set by MDPH. Therefore, the estimate for this town should be interpreted with caution."

\*\*Three years average prevalence among adults in MA

\*\*\*Five years average prevalence among adults in MA

**Appendix 3: Springfield Age-Adjusted Average Annual Hospitalization Rates, 2009-2011  
(per 100,000)**

	Springfield	Massachusetts
<b>Asthma (All Ages)</b>	<b>250</b>	<b>161</b>
White, non-Hispanic	133	122
Black, non-Hispanic	188	380
Hispanic	522	367
<b>COPD</b>	<b>481</b>	<b>387</b>
White, non-Hispanic	407	355
Black, non-Hispanic	347	558
Hispanic	720	561
<b>All Cancer</b>	<b>310</b>	<b>431</b>
White, non-Hispanic	317	427
Black, non-Hispanic	333	470
Hispanic	274	344
<b>Hypertension</b>	<b>93</b>	<b>49</b>
White, non-Hispanic	31	34
Black, non-Hispanic	193	217
Hispanic	115	107
<b>Coronary Heart Disease</b>	<b>292</b>	<b>338</b>
White, non-Hispanic	285	331
Black, non-Hispanic	249	274
Hispanic	338	341
<b>Stroke</b>	<b>281</b>	<b>246</b>
White, non-Hispanic	238	233
Black, non-Hispanic	334	350
Hispanic	335	283
<b>Mental Health</b>	<b>1950</b>	<b>865</b>
White, non-Hispanic	2064	857
Black, non-Hispanic	1505	941
Hispanic	2097	898

#Behavioral Risk Factor Surveillance Survey, 2001-2011, with the majority of estimates made using 2008 data or later

\*Prevalence estimate for the community meets one but not both DPH REPORTING RULES. (The estimates have adequate sample size, however, the precision of 95% CI is larger than the allowable requirements). The MDPH states "In order to provide data for more Massachusetts communities, we include town level estimates that may be based on relatively few respondents or have standard errors that are larger than average. The confidence interval (CI) for this community is wider than the normal limits set by MDPH. Therefore, the estimate for this town should be interpreted with caution."

\*\*Three years average prevalence among adults in MA

\*\*\*Five years average prevalence among adults in MA



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