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## Assessment of Disparities in Health Care Access and Health Outcome among Racial and Ethnic Minorities

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## Abstract

### Assessment of Disparities in Health Care Access and Health Outcome among Racial and Ethnic Minorities

By

Nadia Al-Amin

April 19, 2016

Health disparities are defined by the U.S. department of Health and Human Services (HHS) as health differences that are closely correlated with social, economic, and environmental disadvantages. Health disparities are disproportionately present among racial and ethnic minorities as a result of disparities in income, unemployment, education, and housing and environment. HHS has outlined five goals to reduce health disparities: (1) Transform health care by reducing barriers to access to care; (2) Strengthen the nation's Health and Human Services infrastructure and workforce through increased diversity in the health care workforce and culturally competent care; (3) advance the health, safety, and well being of the American people by creating environments that promote healthy behavior; (4) Advance scientific knowledge and innovation through increased patient centered research in prevention, screening, diagnostic and treatment services; and (5) Increase the efficiency and accountability of HHS programs by better coordinating and integrating minority health programs(Health and Human Services, 2011).

Four reports (CDC, Inequalities Report, The Kelly Report, AHRQ, Disparities ad quality report, and the Westside Health Collaborative Report (WHC)) were used to attain a better view of the health disparities. The concordance of each report to the HHS goals, as well as concordance between reports of the description of health disparities in racial and ethnic minorities was assessed.

All four reports were largely similar in their conclusion that racial and ethnic minorities experience greater barriers to access to healthcare and have higher rates of negative health outcomes. The four reports were also similar in their recommendations for each of the five HHS goals. Medicaid expansion, increased access to health services and health education, training community health workers, increased funding for minority serving institutions, and increased race specific research were among the recommendations. Next steps should focus largely on implementation of programs rather than research

Assessment of Disparities in Health Care Access and Health Outcome among  
Racial and Ethnic Minorities

By

Nadia Safi Al-Amin

B.S., GEORGIA STATE UNIVERSITY

A Capstone Submitted to the Graduate Faculty  
Of Georgia State University in Partial Fulfillment  
Of the  
Requirements for the Degree

MASTER OF PUBLIC HEALTH

ATLANTA, GEORGIA  
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APPROVAL PAGE

Assessment of Disparities in Health Care Access and Health Outcome among  
Racial and Ethnic Minorities

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## Author's Statement Page

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Nadia S. Al-Amin

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## INTRODUCTION

Health disparities are defined by the U.S. department of Health and Human Services as health differences that are closely correlated with social, economic, and environmental disadvantages (Health and Human Services, 2011). The U.S currently spends more per person on healthcare than any other developed country (LaVeist, Gaskin, & Richard, 2009). As a result, one would expect health disparities in this country to be minimal or non-existent. However, a substantial amount of money spent on healthcare is due to the significant disparities that exist in racial and ethnic minorities. Between 2003 and 2006, the U.S had a combined cost of \$1.24 trillion from health inequalities and pre-mature deaths in minorities. Additionally, 30.6 % of all direct healthcare expenditures for African Americans, Asians and Hispanics were in excess as a result of health disparities. Eliminating health disparities for racial and ethnic minorities would have reduced direct and indirect medical care by \$229.4 billion and more than \$1trillion, respectively, between 2003 and 2006 (LaVeist et al., 2009).

Health disparities in racial and ethnic minorities, namely African Americans and Hispanics, don't just increase cost for healthcare organizations; they also increase cost for families, communities, employers, insurance companies, and government agencies. Indirect cost associated with health disparities include, lost wages and productivity as a result of health issues, absenteeism, and lower quality of life(LaVeist et al., 2009). The costs of health disparities are substantial and the nation cannot afford to ignore them.

According to the Center for Disease Control and Prevention's (CDC) Health Disparities and Inequalities report, residents in mostly minority communities have lower socioeconomic status, have lower healthcare access and greater risk of disease compared to the general

population living in the same country or state(CDC, 2013). Disparities in access to healthcare and health outcome are greater for minority populations because of disparities in social determinants of health, such as income, unemployment, education, and housing and environment.

In order to reduce racial and ethnic health disparities, the Department of Health and Human Services has taken several steps, such as establishing offices of minority health in six agencies (CDC, the Agency for Healthcare Research and Quality (AHRQ), the Health Resources and Services Administration (HRSA), Center for Medicare and Medicaid Services (CMS), the Food and Drug Administration (FDA), and the Substance Abuse and Mental Health Services Administration (SAMHSA)); and developing the HHS Disparities Action Plan centered around five goals, which are to:

- I. Transform health care by reducing barriers to access to care;
- II. Strengthen the nation’s Health and Human Services infrastructure and workforce through increased diversity in the health care workforce and culturally competent care;
- III. Advance the health, safety, and well being of the American people by creating environments that promote healthy behavior;
- IV. Advance scientific knowledge and innovation through increased patient centered research in prevention, screening, diagnostic and treatment services; and,
- V. Increase the efficiency and accountability of HHS programs by better coordinating and integrating minority health programs(Health and Human Services, 2011).

The goals were developed for use as guidance for HHS agencies and others who wish to do research or plan interventions for the reduction of health disparities in racial and ethnic minorities.

In accordance with these goals, CDC and AHRQ have developed reports on the current state of health disparities, improvements as a result of HHS interventions, and future policy recommendations. In this paper we will review CDC's 2013 Health Disparities and Inequalities report and AHRQ's 2014 National Healthcare Quality and Disparities Report; along with reports from the Congressional Black Caucus and Congresswoman Robin Kelly, (The Kelly Report) and The Arthur M. Blank Family foundation, (Westside Health Collaborative Needs Assessment: Demographic, Health and Community Asset Report); and assess their alignment with the HHS goals.

One of the purposes of this paper is to discuss health disparities among racial and ethnic minorities; more specifically, disparities in access to healthcare and healthy living options, and health outcomes in relation to social determinants of health such as, income, unemployment, education and housing and environment. Second, this paper will discuss the alignment of the description of and recommendations for reducing health disparities outlined in the reports with the HHS goals. Additionally, this paper will review current recommendations and efforts to reduce health disparities, and provide further legislative and non-legislative recommendations.

## **METHODS**

The first three reports, CDC, AHRQ and Kelly Report, were chosen because they offer a comprehensive review of racial and ethnic disparities in the United States. All three articles are sponsored by government agencies and offer a nation-wide look at health disparities and the

policies and interventions proposed and implemented to reduce them. The Westside Health Collaborative Needs Assessment: Demographic, Health and Community Asset Report (WHC) focusing on three tiers of neighborhoods, located on the Westside of Atlanta (Table 1), offers a more local and specific view of racial and ethnic disparities with the aim of increasing healthy children and youth, healthy communities and access to care (Appendix A). The WHC report isn't necessarily a report on health disparities in African American communities; however the majority of the population in the three tiers of neighborhoods covered is African American. The CDC and AHRQ reports are a general report of health disparities in the U.S and cover most racial and ethnic groups. The Kelly report on the other hand is a look at health disparities in African American communities. For this paper, racial and ethnic minorities only refer to African American and Hispanic groups unless otherwise stated.

Although two of the articles are more general in their assessment of disparities and don't focus on specific groups, all the reports discuss health disparities in the groups of interest. These four reports were chosen because together they provide a comprehensive view of racial and ethnic health disparities in the nation. By reviewing the three government-funded nationwide reports and comparing them to the WHC report, we can see the similarities and differences that exist in description of racial and ethnic health disparities and the approaches taken to reduce them by the government and local agencies.

The HHS goals were developed for use as guidance for HHS agencies and other similar organizations who wish to do research or plan interventions for the reduction of health disparities in racial and ethnic minorities (Health and Human Services, 2011). The use of HHS goals as a guideline for research or programming insures coverage of a significant amount; if

not all of the factors that impact health disparities. In this paper, the HHS goals will serve as a framework for evaluating the recommendations and current interventions mentioned in the four reports. Each report is compared to the HHS goals to determine whether or not each goal is addressed in the report and whether or not there is concordance between the reports.

From each report, information on racial and ethnic disparities in access to health care services and healthy living options (healthy food retailers, parks, community programs) and health outcomes in relation to Income, education, unemployment and housing and environment is examined.

*Table 1-Westside of Atlanta Neighborhoods*

## WHC Neighborhood Selection

- The WHC areas of interest were categorized into three tiers as defined by the Blank Foundation :

Tier 1	Tier 2	Tier 3
<ul style="list-style-type: none"> <li>• Castleberry Hill</li> <li>• English Avenue</li> <li>• Vine City</li> </ul>	<ul style="list-style-type: none"> <li>• Ashview Heights</li> <li>• Atlanta University Center (AUC)</li> <li>• Bankhead</li> <li>• Grove Park</li> <li>• Washington Park</li> </ul>	<ul style="list-style-type: none"> <li>• Zip code 30314</li> <li>• Zip code 30318</li> </ul>

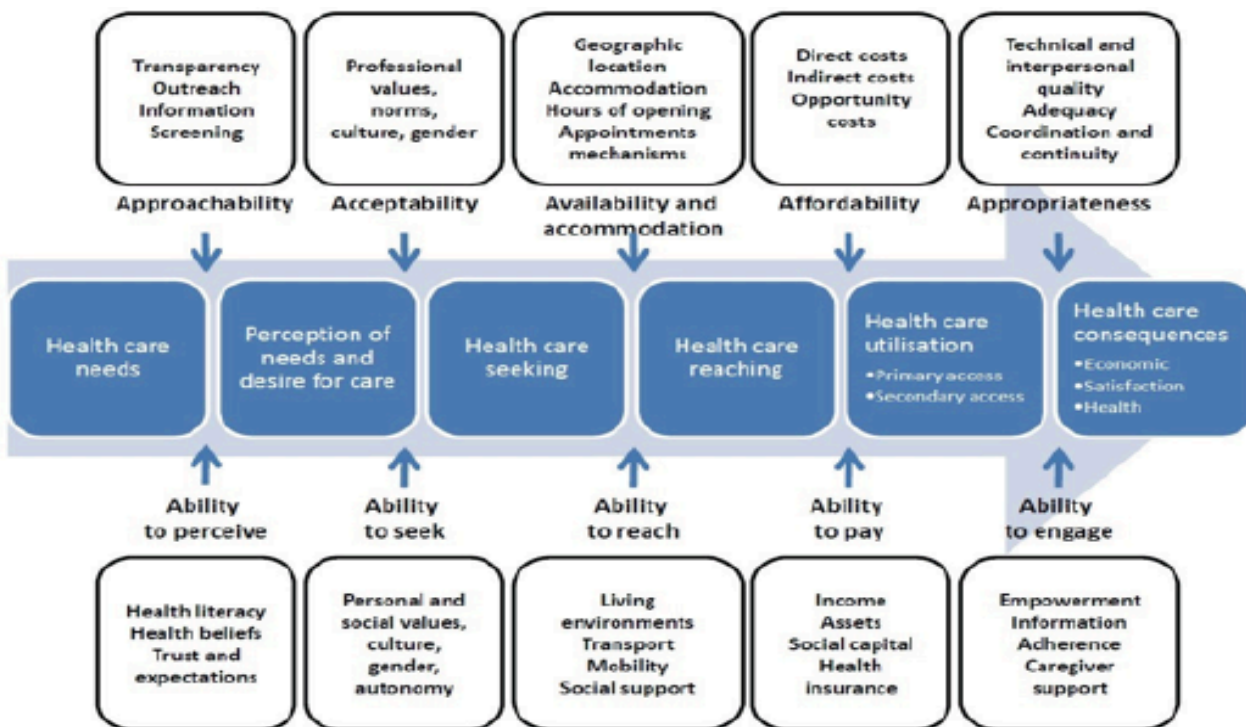
## REVIEW OF LITERATURE

In this section of the paper, the role of social determinants of health: Education, Income, Unemployment and Housing/Environment in health disparities are discussed; their impact on access to health care and health outcomes is defined; and the recommendations proposed by the four reports are examined for alignment with the HHS goals.

## Health Care Access

Access is defined as the opportunity to reach and obtain appropriate health care services (Levesque, Harris, & Russell, 2013). Access to appropriate healthcare services is imperative for achieving and maintaining a healthy lifestyle. Despite the fact that the U.S is among the most advanced nations in medical technology and the highest spender on healthcare, a significant amount of racial and ethnic minorities in America lack access to care and subsequently have poorer health (Kelly, 2015). Often times, access to care is solely measured by health insurance status. While health insurance is a major part of access, it is not the only measure. Access can be measured from both the provider and consumer points of view. From the provider side, barriers to access can arise from provider approachability, availability of healthcare facility in terms of location and hours, affordability of service, and acceptability of systems in alignment with patient value. From the consumer side, issues can arise from ability to perceive a health need, attitude about care seeking, ability to physically reach facility location, and ability to engage provider (Levesque et al., 2013)(figure 1). Access to care barriers arising from both the provider and consumer sides are exaggerated as a result of disparities in income, education, employment and housing and environment; which are factors that affect racial and ethnic minorities disproportionately compared to white Americans (Kelly, 2015). The presence of one or more of these social determinants of health is likely to influence the existence of the others. For example, low levels of education influences employment, which in turn influences income level, which then influences living condition/environment.

Figure 1. Definition of Access



## I. Education

Education attainment is one of the major predictors of employment and income stability. According to the CDC, disparities in poverty increase with decreasing levels of education (CDC, 2013). Those with low levels of education and income experience higher levels of morbidity and mortality along with decreased access to care (CDC, 2013). Individuals with lower levels of education have lower perceptions of health needs, which make them less likely to seek and receive preventative care or adhere to and understand medication regimens given by their physician; and less likely to follow physician advice and recommendations for a healthier lifestyle (Kelly, 2015).

African Americans and Hispanics have some of the lowest levels of education attainment and the largest disparities in access to care (CDC, 2013). For example, In 5 out of 9 of the neighborhoods on the Westside of Atlanta, where the population is predominantly African American, over a quarter of the residents have less than a high school diploma or GED. This is the same area where approximately 23% of residents are uninsured(Foundation, 2015). Individuals with less than a high school degree or GED are likely to also have low levels of health literacy which can be a reason why they may not seek care or feel confident enough to ask questions and understand their diagnoses and care plan (Kelly, 2015). Low levels of education in Hispanic and African American communities result in stigma about mental health issues, which result in African American and Hispanics being less likely to use mental health services than non-Hispanic Whites(Kelly, 2015). Level of education impacts access to healthcare on its own and through its influence on employment and income. The AHRQ report does not discuss the role of education on racial and ethnic disparities in access to health care.

## **II. Unemployment**

In 2010, unemployment was twice as high in African Americans and Hispanics compared to Whites. Unemployment was also highest for those with less than a high school education or GED (CDC, 2013), which is the group with decreased access to healthcare. Families that are not working or do not have members that are employed, often do not maintain continuous insurance coverage (Kelly, 2015). People who are unemployed have a higher lack of health insurance and access to health care, as well as increased risk of death. Although the AHRQ and Westside reports do not specifically mention the influence of unemployment, their mention of factors that impact unemployment such as income and education point to a decreased rate of



employment and likelihood of being insured for racial and ethnic minorities. Unemployment has an impact on income, which in turn influences individuals' ability to have access to health care and healthy living options.

### **III. Income**

According to the Kelly Report, income level affects the likelihood that a patient will have discontinuous insurance coverage, therefore patients with lower levels of income are less likely to have a consistent source of care and access to timely care (Kelly, 2015). Adults aged 18-64 with lower levels of income, are significantly more likely to be uninsured. Subsequently, those without health insurance are seven times more likely to forego necessary healthcare services because of cost than those with insurance (CDC, 2013). According to AHRQ, those in poor households (family income less than federal poverty line) had worse access to care compared to those in high-income households (AHRQ, 2014). In 2010, significantly more Blacks and Hispanics were classified as uninsured compared to non-Hispanic Whites. Black and Hispanics families have significantly lower income compared to their white counterparts (CDC, 2013).

Two examples that illustrate the impact of income on access to care are: approximately 79% of residents living on the Westside of Atlanta are African American and approximately 40% of the total population in this area has incomes below the federal poverty line. Also, approximately 23% of those living on the Westside of Atlanta are uninsured and have high rates of morbidity and mortality due to preventable or easily treatable diseases (Foundation, 2015). People with lower incomes are also more likely to postpone care seeking, receive care from specialist or receive quality care (Kelly, 2015) (CDC, 2013). African American women in Chicago die at a higher rate than White women and African American women living in other parts of the

country as a result of the quality of care in the area (Kelly, 2015). Additional income related barriers to access to healthcare such as high cost of transportation to and from a facility are also disproportionately experience by African Americans and Hispanics.

The Affordable Care Act (ACA) has reduced a lot of the income-related disparities in access to care by providing affordable, quality health insurance to many for whom it was not available; however health insurance continues to be a barrier to access for those living in the southern states that chose not to expand their Medicaid coverage. In these states, low income adults who are eligible for Medicaid but earn above the limit to qualify for ACA marketplace subsidies are unable to attain health insurance, and subsequently adequate and timely care. This gap in coverage quantified at 9%(Appendix D), affects more African Americans than any other race, as they disproportionately live in the south (Kelly, 2015).

#### **IV. Housing/Environment**

Housing and Environment greatly influence access to healthcare services. As previously stated, where a person lives can affect whether or not they have access to Medicaid or any other form of health insurance. The greatest housing/environment related barrier to access, however, is distance and availability of healthcare facilities. Individuals in rural parts of the country have to travel further distances to seek care compared to those living in urban areas. These individuals are also more likely to have discontinuous insurance and lack a usual source of care, receive quality care and delay seeking necessary care(Kelly, 2015).

Comparatively, those living in urban areas are less likely to have access to activities and programs that promote a healthy life style, such as parks, bike trails and community testing and treatment centers(CDC, 2013). Despite the fact that HIV is among the top ten leading causes of

death in tier 1 and 2 neighborhoods(as labeled by WHC), residents have no access to HIV/AIDS primary care services within their community; and very little access to testing centers. There is also very little availability of youth, senior, and wellness centers in these areas; the few that exist have low utilization(Foundation, 2015).

According to the CDC, access to healthier food retailers was lower in census tracts with pre-dominantly non-Hispanic black residents than tracts with predominantly non-Hispanic white residents. Census tracts with less than 64% non-Hispanic whites were more likely to lack access to healthier food retailers than those with a higher percentage of non-Hispanic whites(CDC, 2013).

### **Health Outcome**

Having a positive health outcome is defined as “being alive, functioning well mentally, physically and socially; and having a sense of well being”(Parrish, 2010). We can then assume that disparities in health outcome are differences between racial and ethnic groups in the rate of death, ability to function well mentally, physically and socially; and a reduced sense of well-being. Disparities in positive health outcomes are largely present among racial and ethnic minorities. African Americans have 10% higher rate of Cancer compared to non Hispanic-whites(Kelly, 2015). African Americans and Hispanics are 2 times more likely to have diabetes as non-Hispanic whites and account for approximately half of all new HIV infections(CDC, 2013).Additionally African Americans account for more than one third of all U.S patients receiving dialysis for Kidney Failure and are 6 times more likely to be victims of homicide (Kelly, 2015). Other health issues like, obesity, pre-term births, asthma, hypertension, and tuberculosis are all disproportionately present in racial and ethnic minorities.

## I. **Education**

A substantial amount of the disparities in health outcome exist as a result of lack of health education. As previously stated, African Americans and Hispanics have the lowest levels of education attainment (CDC, 2013). According to the CDC, lower levels of education are associated with increased rates of mortality and morbidity for racial and ethnic minorities. Those with lower levels of education also have low health literacy lack information about the risks associated with certain behaviors and diseases and do not seek preventative care (Literacy & Review, 2014). As a result, racial and ethnic minorities suffer from poorer health outcomes in many diseases. African Americans are hospitalized at a higher rate for heart failure than whites because African Americans are less likely than Whites to receive rehab and education that promotes healthy living and ultimately prevents second cardiac events (Kelly, 2015). Those with lower levels of education were also more likely to have HIV and less likely to have suppressed viral loads compared to those with higher levels of education(CDC, 2013).

Lack of education about healthy eating habits at community wellness centers and schools, along with lack of access to healthy foods, parks and bike trails, increases risk of obesity. In tier 1 and 2 neighborhoods in the Westside of Atlanta, where there aren't many opportunities to learn about leading a healthy lifestyle, more than a third of the population is obese(Foundation, 2015). Education attainment can increase likelihood of employment and decrease rates of negative health outcomes. The AHRQ report did not discuss the role of education on health outcomes.

## I. Unemployment

Unemployed people have higher rates of illness and increased risk of death(CDC, 2013). Just as unemployment impacts a person's health, poor health also impacts employment. A person with poor health is less likely to be able to find and sustain employment. Unemployment rates are highest for African American and Hispanics. In 2010, unemployed people were less likely to report feeling mentally and physically healthy compared to employed people(CDC, 2013)(Kelly, 2015). The AHRQ report only discusses the role of unemployment in healthcare access but not outcome. The Westside report does not discuss the role of unemployment on health outcomes. Unemployment mainly impacts health outcome through its influence on income

## II. Income

Income stability allows people to gain access to psychosocial and material resources to reduce exposure to health risks(CDC, 2013); thus, individuals with low income are likely to be exposed to health risks. Health issues like obesity, HIV, and diabetes are high in individuals with low income. Low-income areas are less likely to have parks, bike trails, access to healthy food retailers, and organized sports. Such areas are populated with more than 60% African Americans, Latinos and Asians compared to only 31% whites(Kelly, 2015). People living in these areas are also less likely to afford medication, which could increase the likelihood of a negative health outcome. In tier 1 and 2 neighborhoods, Pneumonia is among the top 10 causes of hospitalization, which demonstrates inability to afford primary care(Foundation, 2015). Additionally, individuals with low income and education attainment tend to receive lower quality care(CDC, 2013). According to the AHRQ, people in poor households (family income

below the federal poverty line), received worse care than those in high income households(Ahrq, 2014). Income is very important part of access to care and therefore an important part of positive health outcomes.

### **III. Housing and Environment**

Health outcome is largely impacted by housing and environment. Health conditions like obesity and asthma are influence by the environment. People who live in areas with less access to healthy food retailers, are more likely to follow unhealthy diets leading to obesity (CDC, 2013). For example, people who live in tier 1 and 2 neighborhoods on the Westside of Atlanta have little to no easy access (within 1 mile) of healthy fresh foods, subsequently, over 34% of people in these areas report being obese (BMI 30 or greater). In addition to healthy foods, the unavailability of parks and walking and bike trails in these areas have led to an estimated 38% or more of the population being physically inactive, which also plays a role in obesity(Foundation, 2015). Obesity can in turn trigger other health issues, such as high blood pressure, diabetes and asthma.

Environmental conditions play an integral role in the development and control of Asthma related symptoms. People in tier 1 and 2 neighborhoods live in poor condition homes, where 83% had an Environmental Relative Moldiness Index (ERMI) score greater than 5(Appendix C). 39% of residents have at least 1 person who smokes indoors and 29% reported having mice or rats present at least half of the time. In these areas, asthma is one of the top 10 cause of morbidity(Foundation, 2015). Asthma symptoms can also be triggered as a result of proximity to major highways. According to the CDC, there is enough evidence of a “causal relationship between traffic related air pollution and asthma exacerbation and onset of

childhood asthma, non-asthma respiratory symptoms, impaired lung function, all-cause mortality, cardiovascular mortality and cardiovascular morbidity". More racial and ethnic minorities and those with lower socioeconomic status experience higher rates of exposure to traffic related pollution than other groups(CDC, 2013). African American children in particular have a significantly higher rate of Asthma compared to Hispanics and non-Hispanic whites(Kelly, 2015).

The influence of housing and environment on morbidity is magnified when it comes to death by homicide. People who live in urban settings are more likely to be exposed to violence (Kelly, 2015). More African American and Hispanic men ages 15-29 die of homicides than any other race(CDC, 2013). In 2013, approximately 21% of all the crimes committed in tier 1 and 2 neighborhoods were violent crimes including homicides. These neighborhoods also have high rates of aggravated assault and robbery; which all lead to increased risk of death for residents in these areas(Foundation, 2015).

Another reason for an increased rate of mortality and morbidity in racial and ethnic minorities are fatal and non-fatal work related injuries. More non-Hispanic Black and Hispanic individuals work in high-risk (at least twice the national DAFW rate of 113.3 cases of injury and illness per 10,000 FTEs.), low paying jobs compared to non-Hispanic Whites. Work related fatal injuries were highest in Hispanic and foreign born individuals. African Americans also had work-related fatality rates at 1.5 time that of the U.S rate for agriculture, forestry, and fishing(CDC, 2013). AHRQ does not discuss the role of housing and environment in health outcomes.

## **DISCUSSION OF CONCORDANCE OF REPORTS WITH HHS GOALS**

As aforementioned, HHS goals were used as a framework for evaluating the discussions and recommendations to reduce health disparities; outlined by the four reports.

The four reports emphasize that racial and ethnic health disparities are large and have an impact not only on the overall wellness of the population but on the economy as well.

According to the Kelly Report, for a long time it was thought that a general improvement in healthcare would result in improved care for all populations. Unfortunately, this general improvement actually increases health disparities, as advances in healthcare are not often available for disadvantaged populations as quickly as for others(Kelly, 2015). Both the Kelly Report and the CDC agree that the way to reducing health disparities is by tailoring programs to specific groups, understanding the disparities in each population separately and then planning appropriate programs.

**Goal I:** *Transform health care by reducing barriers to access to care.*

Improving access to health services is the most effective way of reducing racial and ethnic health disparities. Some current interventions, such as school-based health centers, increasing utilization of healthcare workers, and increasing cultural competence of healthcare providers have made significant impact in the reduction of disparities in access to care(Kelly, 2015). Both the Kelly and CDC reports agree that the implementation of the affordable care act has reduced racial and ethnic disparities in access to health care substantially(CDC, 2013; Kelly, 2015). The Kelly report also recommends ensuring the full expansion of Medicaid, enhancing the availability of national race specific data, supporting health centers and programs in medically underserved populations, and passing critical health disparities legislation as methods



of reducing racial and ethnic disparities in access(Kelly, 2015). The CDC report emphasizes the role of education in access to healthcare and echoes recommendations from the U.S Department of Education of using evidence-based strategies to reduce dropout rates among middle and high school students(CDC, 2013).

The Westside of Atlanta currently has some community health centers and there is some utilization of community health workers, however the centers are not nearly enough to provide care for all three tiers of neighborhoods. In order to improve access to care in these areas, some of the WHC report recommendations are: developing a community health worker program; implementing health education programs to address preventive health practices and chronic disease management; improving access to HIV support including counseling and primary healthcare services through evidence-based models; expanding mental health treatment at Neighborhood Union Health Center; and developing capacity for neighborhood area healthcare services to provide medication assisted treatment for opioid addiction(Appendix B)(Foundation, 2015).

The AHRQ report has developed three aims for reducing racial and ethnic health disparities: Better Care, Healthy people/communities, and Affordable care. The report recommends development and spread of new health care delivery models to reduce healthcare cost and thereby making it more accessible. Ensuring engagement of individuals in their own care and effective communication with care providers are also among the recommendations offered for reduction of racial and ethnic disparities in access to care.

**Goal II:** *Strengthen the nation's Health and Human Services infrastructure and workforce through increased diversity in the health care workforce and culturally competent care.*

Diversification of the workforce, meaning having more healthcare providers who resemble in race, culture, language, age, and a variety of other demographics results in improved patient-physician communication, improved trust in physician recommendations, and increased adherence to treatment plan(Kelly, 2015). Expansion of training programs for racially diverse workers, development of programs that expose students to career options in healthcare, and supporting funding for historically black colleges and universities and other institutions serving minority populations; are among the recommendations offered by the Kelly report to increase workforce diversity(Kelly, 2015). The WHC report addresses the issue of workforce diversity by training community health workers from the same communities they will be serving(Foundation, 2015). The CDC and AHRQ reports don't explicitly make recommendations for increasing diversity in the workforce; instead they make general recommendations of increased education and use of community health workers.

**Goal III:** *Advance the health, safety, and well being of the American people by creating environments that promote healthy behavior.*

As discussed in all four reports, one's environment largely impacts their access to health and outcome. Current interventions such as nutrition education in schools, organized sports, and government funding to increase availability of healthy food retailers in underserved populations has made substantial impact in creating environments that promote healthy living(CDC, 2013; Foundation, 2015; Kelly, 2015). The Kelly report recommends promoting healthy behaviors within the places and spaces where underprivileged populations live(Kelly, 2015). In addition to programs that increase availability of healthy food retailers, the CDC also recommends that grocery stores use promotion and shelf labeling along with education on the

benefits of particular foods as well as tips for preparation of healthy foods to increase purchase of these foods. Increasing opportunities for low or no-cost physical activity programs, building and enhancing trails and parks and improving sidewalks are also among CDC's recommendations to create environments that promote healthy living(CDC, 2013).

The WHC report recommends expansion of availability of healthy foods in corner stores; increase use of community gardens, expansion of group fitness programs, and implementation of evidence based physical fitness and education programs to promote healthy living environments (Appendix B)(Foundation, 2015). Similarly, the AHRQ recommends use of evidence based practices to enable healthy living(Ahrq, 2014).

**Goal IV:** *Advance scientific knowledge and innovation through increased patient centered research in prevention, screening, diagnostic and treatment services.*

Scientific advances play an integral role in the progression of health and healthcare services. Improving scientific knowledge has allowed for the discovery that people of different races and ethnicities react differently to various illnesses and environmental triggers. As a result many improvements have been made in how disparities in racial and ethnic minorities are addressed. To further reduce racial and ethnic health disparities; the Kelly report recommends, increased participation of minorities in clinical trials, support of investments in innovative digital technologies and increasing funding for research on diseases that disproportionately affect racial and ethnic minorities(Kelly, 2015). The CDC generally recommends increased race specific research to address racial and ethnic health disparities. The AHRQ and WHC reports do not make recommendations for advancement of scientific knowledge.

**Goal V:** *Increase the efficiency and accountability of HHS programs by better coordinating and integrating minority health programs and information sharing across agencies.*

The last HHS goal applies solely to agencies within HHS, therefore only the CDC and AHRQ would be expected to have any current methods or future recommendations of achieving this goal. The information in the CDC and AHRQ reports is largely there for use by other HHS agencies and public health practitioners in assisting them in planning evidence-based intervention to reduce health disparities (Ahrq, 2014; CDC, 2013). Neither report however, outline specific guidelines/recommendations for improving information sharing and coordination of minority health programs. The WHC and Kelly reports do not fall in the category of HHS agencies and do not have any specific recommendations for coordination of minority health programs or information sharing.

**Table 2: HHS Goals and Related Recommendations**

HHS Goals	Kelly Report	CDC	AHRQ	WHC
<b>I. Transform healthcare by reducing barriers to access to care</b>	<ul style="list-style-type: none"> <li>Increasing access to healthcare through Medicaid expansion and the Affordable Care Act.</li> <li>Use of culturally competent community health workers.</li> </ul>	<ul style="list-style-type: none"> <li>Increasing access to healthcare through Medicaid expansion and the Affordable Care Act.</li> <li>Use of culturally competent community health workers.</li> <li>Increased rates of Education</li> </ul>	<ul style="list-style-type: none"> <li>Develop new cheaper healthcare delivery models</li> <li>Engage individuals in their own care</li> <li>Effective communication with providers</li> </ul>	<ul style="list-style-type: none"> <li>Develop community worker p</li> <li>Health E</li> <li>Expand n</li> <li>treatmen</li> <li>Increase</li> </ul>
<b>II. Strengthen the nation's Health and Human Services infrastructure and workforce through increased diversity in the health care workforce and culturally competent care</b>	<ul style="list-style-type: none"> <li>Expansion of training programs for racially diverse workers</li> <li>Programs that expose students to career options in the healthcare</li> <li>Funding for minority serving institutions</li> </ul>	NO recommendations	No Recommendations	<ul style="list-style-type: none"> <li>Training health w</li> <li>the sam</li> <li>commu</li> <li>serve</li> </ul>
<b>III. Advance the health, safety, and well being of the American people by creating environments that promote healthy behavior</b>	<ul style="list-style-type: none"> <li>Promoting healthy behaviors within the places and spaces where underprivileged individuals live</li> </ul>	<ul style="list-style-type: none"> <li>Increasing availability of healthy food retailers and use of promotions and shelf labeling at stores to increase purchase of</li> </ul>	<ul style="list-style-type: none"> <li>Use of evidence based practices to enable healthy living</li> </ul>	<ul style="list-style-type: none"> <li>Availabi</li> <li>foods in</li> <li>Increase</li> <li>commu</li> <li>Expansi</li> <li>fitness p</li> <li>Implem</li> <li>evidenc</li> </ul>

		<ul style="list-style-type: none"> <li>• healthy foods.</li> <li>• Increasing availability of low or no cost physical activity programs</li> <li>• Building parks, trails and sidewalks</li> </ul>		<ul style="list-style-type: none"> <li>• physical promote living</li> </ul>
<p><b>IV.</b> Advance scientific knowledge and innovation through increased patient centered research in prevention, screening, diagnostic and treatment services</p>	<ul style="list-style-type: none"> <li>• Increased participation of minorities in clinical trials</li> <li>• Support of investments in innovative digital technologies</li> <li>• Increasing funding for research on diseases that disproportionately impact minorities.</li> </ul>	<ul style="list-style-type: none"> <li>• Increased race specific research to address racial and ethnic disparities</li> </ul>	<ul style="list-style-type: none"> <li>• No recommendations</li> </ul>	<ul style="list-style-type: none"> <li>• No reco.</li> </ul>
<p><b>V.</b> Increase the efficiency and accountability of HHS programs by better coordinating and integrating minority health programs</p>	<ul style="list-style-type: none"> <li>• No recommendations</li> </ul>	<ul style="list-style-type: none"> <li>• No recommendations</li> </ul>	<ul style="list-style-type: none"> <li>• No recommendations</li> </ul>	<ul style="list-style-type: none"> <li>• No reco.</li> </ul>

\*the highlighted text indicates concordance between reports.

## **DISCUSSION**

The cost of racial and ethnic health disparities are varied and substantial. Not only is there the direct economical cost of over approximately \$1.24 trillion(LaVeist et al., 2009), but also the indirect costs of lost wages, absenteeism, increased morbidity and mortality, and overall lower quality of life. All four of the reports discussed paint a similar picture of health disparities. Health disparities in access and outcome are largely present in racial and ethnic minorities. These disparities are further impacted as a result of education, unemployment, income and housing and environment. Racial and ethnic minorities are more likely to have lower levels of education and income and high levels of unemployment as well as live in impoverished environments with little availability of health services. Subsequently, those with low levels of education and income and high levels of unemployment are less likely to be insured, seek and understand care, communicate with physicians, and have healthy diets. These same individuals are more likely to die of preventable diseases, have high obesity and HIV rates, little to no access to healthy food retailers, and avoid or delay health seeking. In addition, individuals who live and work in impoverished areas are also more likely to die by homicide and have higher rates of asthma and other upper respiratory health problems than any other groups. Furthermore, racial and ethnic minorities are more likely to be employed in high-risk positions leading to high rates of fatal and non-fatal work injuries compared to whites.

After review of these four reports, the relationship between access to health care and positive health outcomes is apparent. Racial and ethnic minorities are disproportionately impacted by disparities in access to healthcare. This disparity in access has then led to negative health outcomes and lower quality of life for these groups. There is concordance among all the

reports that improved health care access will lead to reduction in health disparities. There is also concordance in how to improve access, for example use of evidence-based strategies to plan interventions and program, increasing access to health education through nutrition classes at schools and community centers, use of community health workers, and increased access to healthy food retailers are cited by all the reports as methods to reduce health disparities.

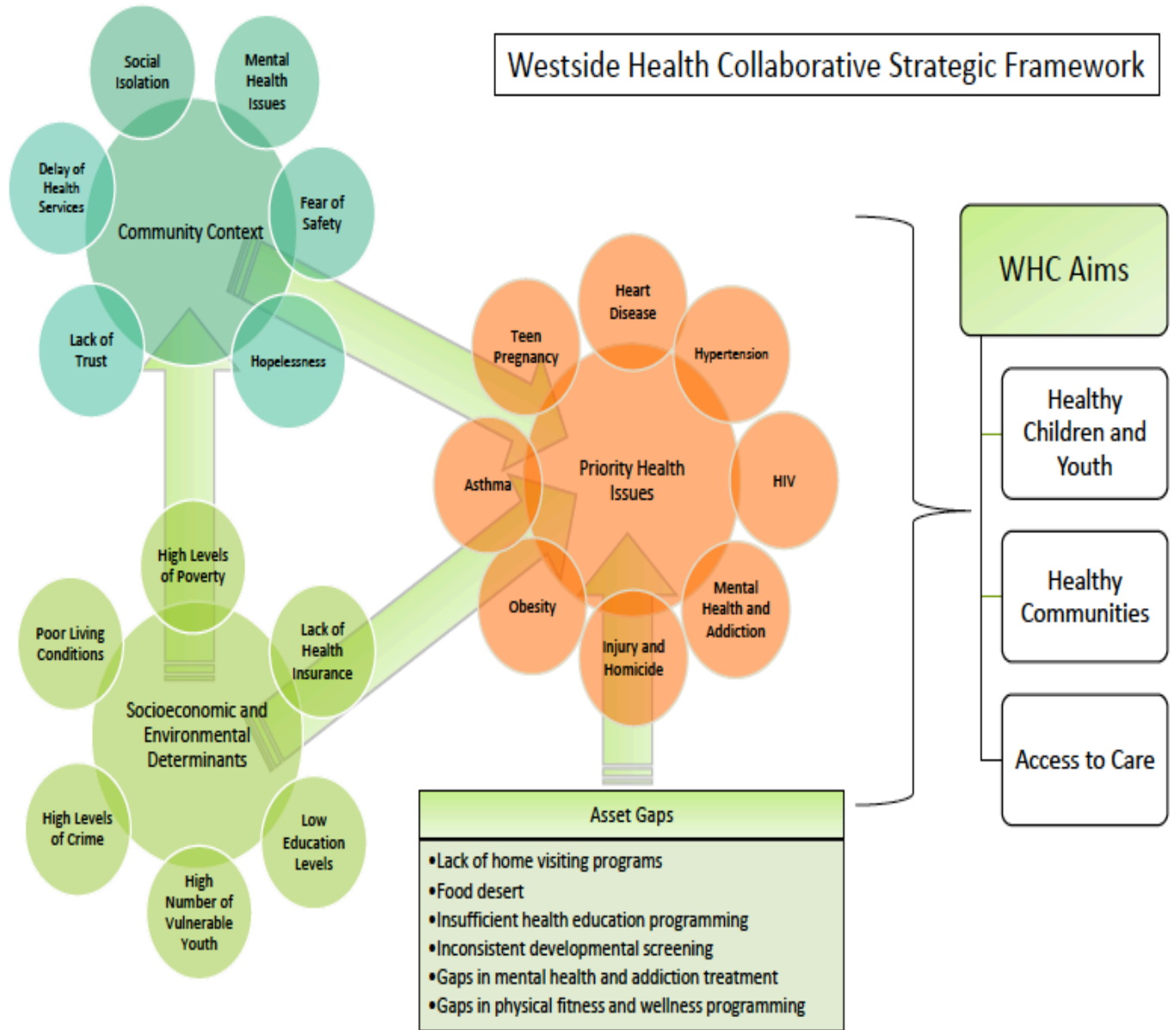
In terms of alignment with the HHS goals and concordance between reports, not all of the reports made recommendations associated with each of the five goals, however, the majority of the recommendations proposed were concordant. The Kelly Report was the only one to make recommendations aligned with 4 out of the 5 HHS goals. The CDC and WHC reports made recommendations aligned with 3 of the 5 HHS goals; and AHRQ only made recommendations aligned with 2 of the 5 HHS goals. The Recommendations proposed by the Kelly, CDC, and WHC reports for Goal I, (Medicaid expansion, use of community health workers, and improved health education), are concordant. The Recommendations proposed by the AHRQ (cheaper healthcare delivery models, effective communication) are slightly different but convey the same message. The Kelly and WHC reports are the only ones to propose recommendations for Goal II. Both Reports recommended expansion of training programs for diverse community health workers. All of the reports had concordant recommendations for Goal III. Recommendations included promotion of healthy eating habits, increasing healthy food retailers and community gardens, and use of evidence based practices to enable healthy living. For Goal IV, only the Kelly and CDC reports had recommendations. Both reports, recommended increasing funds for research on diseases that disproportionately impact minorities. None of the reports had recommendations for Goal V.



Although the four reports had different approaches of assessing and presenting the issue of health disparities in racial and ethnic minorities, there were not very many differences observed in their results and conclusions. Differences only existed in that not all of them with the exception of the Kelly report have recommendations associated with all of the HHS goals. Furthermore the Kelly report was the only one to offer legislative recommendations to reduce health disparities. However all of the legislation recommended support the recommendations made by the other three reports which means there are more similarities than differences. Looking at all of the recommendations from the four reports and their description of the roles of social determinants of health, we see a concordance in the field of what the problem is and how to solve it.

Next steps should focus largely on implementation of programs, especially in the areas covered by HHS Goals I and III, where there was concordance between all of the reports. This is not to say that there should not be any further research, but instead to point to the significant amount of proposed recommendations that have yet to be implemented. There is better value in implementing programs and evaluating them to determine their efficacy and then doing further research to find ways to improve them. Along with implementation and evaluation of recommended programs, the lack of recommendations and interventions from 3(CDC and AHRQ) of the 4 reports for HHS Goals II and IV points to the need for more focused research by these Agencies (AHRQ, CDC, WHC) and others on workforce diversity and technological advances to reduce health disparities. In order to truly impact health disparities in racial and ethnic minorities, there needs to be the availability of more targeted programs rather than general ones that lead to continued disparities in access to health care and health outcomes.

APPENDIX A



(Foundation, 2015)

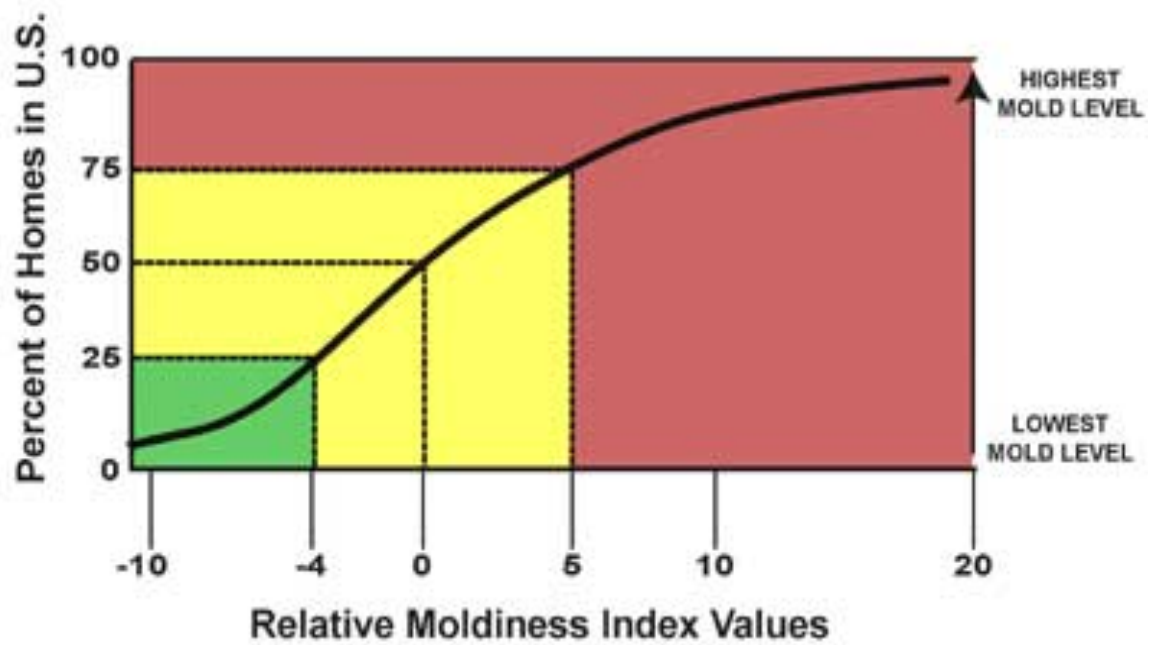
## APPENDIX B

### Westside Health Collaborative Strategic Recommendations

1	2	3	4
<b>Increase Access to Health Care and Support Services</b>	<b>Promote Healthy Development of Young Children</b>	<b>Increase Access to Behavioral Health Care Services</b>	<b>Improve Community Health and Wellness</b>
<ul style="list-style-type: none"><li>• Develop community health worker (CHW) program</li><li>• Enroll individuals in health insurance</li><li>• Identify social service needs</li><li>• Link to medical facilities</li><li>• Implement health education<ul style="list-style-type: none"><li>• Partner with schools and CHWs to promote chronic disease awareness and prevention</li><li>• Utilize evidenced-based models in schools</li></ul></li><li>• Increase access to HIV primary healthcare and support services</li><li>• Reduce crime and violence rates through evidence-based programs</li></ul>	<ul style="list-style-type: none"><li>• Develop home visiting program<ul style="list-style-type: none"><li>• Target pregnant women and parents of children 0-3 yrs of age</li><li>• Link to pre-natal care</li></ul></li><li>• Improve parenting education to support effective practices<ul style="list-style-type: none"><li>• Support groups</li><li>• Case management</li><li>• Partner with schools</li></ul></li><li>• Increase early identification of developmental needs<ul style="list-style-type: none"><li>• Provide improved support services and case management after identification</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Develop neighborhood health care capacity for medication assisted treatment<ul style="list-style-type: none"><li>• Expand partnerships with treatment programs</li></ul></li><li>• Expand mental health treatment at Neighborhood Union Health Center</li><li>• Explore use of peer recovery coaches to expand harm reduction services</li><li>• Develop community-based support group models</li></ul>	<ul style="list-style-type: none"><li>• Increase access to healthy and nutritious foods</li><li>• Strengthen physical activity programming through partnerships with local organizations</li><li>• Implement modified Healthy Homes program<ul style="list-style-type: none"><li>• Train CHWs to conduct environmental assessment</li><li>• Increased education on health impacts of environmental exposures</li><li>• Provide education on ways to mitigate harmful exposures</li></ul></li></ul>

(Foundation, 2015)

APPENDIX C

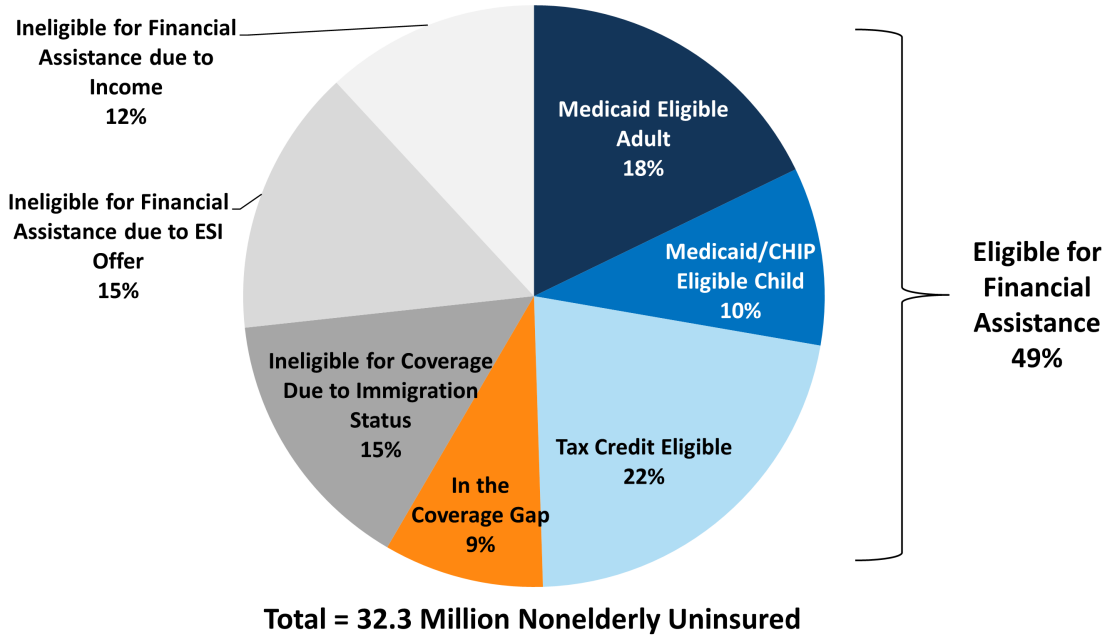


("ERMI Testing: Environmental Relative Moldiness Index," n.d.)

APPENDIX D

Figure 1

### Eligibility for ACA Coverage Among Nonelderly Uninsured as of 2015



NOTES: Numbers may not sum to subtotals or 100% due to rounding. Tax Credit Eligible share includes adults in MN and NY who are eligible for coverage through the Basic Health Plan.  
SOURCE: Kaiser Family Foundation analysis based on 2015 Medicaid eligibility levels updated to reflect state Medicaid expansion decisions as of January 2016 and 2015 Current Population Survey data.



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