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*Chapter 4*

**HETEROGENEITY AMONG BLACKS IN  
THE UNITED STATES: IMPLICATIONS FOR  
FEDERAL HEALTH DATA COLLECTION  
AND REPORTING**

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## ABSTRACT

Multiple federal initiatives have used national data sources to track and monitor the nation's progress towards achieving health equity and to develop policies to reduce racial and ethnic disparities in health and health care. Persistent disparities in health and healthcare have been well documented among Blacks in the United States. However, these disparities have largely been uncovered through data collections at the national level without accounting for nativity (U.S.-born or foreign-born), country of origin or generational status.

The health of Blacks in the United States primarily continues to be studied through the lens of racial and ethnic disparities with Blacks at the aggregate level being compared to Whites. Given that the percentage of foreign-born Blacks in the United States has tripled over the past four decades and is predicted to continue to grow, this approach may be insufficient. The generalized health status of Blacks, as reported by current national data, does not provide a holistic depiction of the status of Black health in the United States given the heterogeneity of the racial group. Blacks display differing health profiles by nativity, country of origin or generational status, and these within-group differences are often masked when data are aggregated into a single racial category. Failure to properly capture these data may lead to inappropriate reporting, monitoring, and tracking of health disparities for the Black population.

Data on the Black race group in the United States has been collected for centuries in federal data collections. While data on the Black race has the longest history of collection than any racial or ethnic minority group, the measurement of Black race has frequently changed over time. Additionally, health data reporting on Blacks rarely stratify findings by nativity or generational status. This chapter examines the diversity of Blacks in the United States and its relevance to health, practices for data collection and reporting, strategies to enhance these practices, and subsequent implications for developing future policies to improve health data collection and reporting of Blacks in the United States.

**Keywords:** Black race, data disaggregation, nativity, foreign-born, generational status, health disparities

## INTRODUCTION

Blacks or African Americans (hereafter referred to as Blacks) account for nearly 13% of the United States' population and represent the second largest racial/ethnic minority group in the nation [1]. In the United States, persons

classified as Black represent a very diverse population that includes U.S.-born as well as foreign-born individuals from countries of Africa, the Caribbean, Central America, South America and Europe (Table 1) [2]. The Black foreign-born population, also considered as the first-generation, represents 10.3% of the Black foreign-born U.S. population [3]. U.S.-born Blacks with at least one foreign-born parent (second-generation) represent 7% of the Black foreign-born U.S. population [3]. Blacks who are U.S.-born with two U.S.-born parents are considered as third-generation or higher and represent 82.7% of the Black foreign-born U.S. population [3]. According to the U.S. Census Bureau, between 2014 and 2060 the U.S.-born and foreign-born Black population is expected to increase 0.3% and 3.3%, respectively [4]. This projected population growth will further contribute to successive generations of foreign-born Blacks in the United States. Understanding the health needs of this growing and heterogeneous group will remain an important public health issue.

Persistent disparities in health and health care have been well documented among Blacks in the United States [5]. Blacks fare worse than Whites on a number of indicators of health status and wellbeing. Multiple federal initiatives have used national data sources to document health disparities experienced by Blacks in the United States in an effort to track and monitor the nation's progress towards achieving health equity (Table 2) [6-9]. One of the first significant federal initiatives highlighting the disparate health of Blacks that used national data was the report of the Secretary's Task Force on Black and Minority Health (Heckler Report) in June 1985 [10]. The Heckler Report documented the less than optimal state of Black (and minority) health in the 1980s and racial disparities that existed between Blacks and Whites on measures of mortality and morbidity. This landmark report provided several key recommendations directed towards enhancing the health data infrastructure to support identifying and addressing health disparities experienced by Blacks and other racial and ethnic minorities, including: 1) improving the quality, availability, and use of health data pertaining to minority populations; 2) the need for more extensive minority health data to improve information available for making program and policy decisions; and 3) reporting more detailed racial and ethnic categories when such data are available.

**Table 1. U.S. Census Bureau Terms and Definitions Related to the U.S.-born and Foreign-born Population**

Census Terms	Definition
Black race category <sup>1</sup>	<p>According to Office of Management and Budget (OMB), “Black or African American” refers to a person having origins in any of the Black racial groups of Africa.</p> <p>The Black racial category includes people who marked the “Black, African American or Negro” checkbox. It also includes respondents who reported entries such as African American; Sub-Saharan African entries, such as Kenyan and Nigerian; and Afro-Caribbean entries, such as Haitian and Jamaican.*</p> <p>*Sub-Saharan African entries are classified as Black or African American with the exception of Sudanese and Cape Verdean because of their complex, historical heritage. North African entries are classified as White, as OMB defines White as a person having origins in any of the original peoples of Europe, the Middle East, or North Africa.</p>
Foreign-Born	<p>The foreign-born population includes anyone who is not a U.S. citizen at birth. This includes naturalized U.S. citizens, lawful permanent residents (immigrants), temporary migrants (such as foreign students), humanitarian migrants (such as refugees and asylees), and persons illegally present in the United States.</p> <p>The Census Bureau collects data from all foreign-born who participate in its censuses and surveys, regardless of legal status. Thus, unauthorized migrants are implicitly included in Census Bureau estimates of the total foreign-born population, although it is not possible to tabulate separate estimates of unauthorized migrants or any other legal status category.</p>
Generational status: first, second, and third or higher generations	<p>Generational status refers to the place of birth of an individual or an individual’s parents. Questions on place of birth and parental place of birth are used to define the first, second, and third-or-higher generations. The first-generation refers to those who are foreign born. The second-generation refers to those with at least one foreign-born parent. The third-or-higher generation includes those with two U.S. native parents.</p>
Nativity status	<p>Nativity status refers to whether a person is U.S.- or foreign-born.</p>
Origin/Heritage group <sup>2</sup>	<p>An origin or heritage group can be viewed as the nationality group, lineage, or country of birth of the person or the person’s ancestors before their arrival in the United States.</p>
Parental place of birth	<p>The Current Population Survey’s Annual Social and Economic Supplement includes two questions on parental place of birth: one on mother’s place of birth and a second on father’s place of birth. These data are used to determine generational status.</p>
U.S.-born (native-born)	<p>The U.S.-born population is composed of anyone who is a U.S. citizen at birth, including people born in the United States, in Puerto Rico, in a U.S. Island Area (American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands), or abroad to a U.S. citizen parent or parents.</p>

Adapted from: <https://www.census.gov/topics/population/foreign-born/about.html>.

<sup>1</sup>This definition for the Black race category was used in the 2010 Census [93].

<sup>2</sup> U.S. Census Bureau. 2012. “Hispanic Origin Main.” [94].

**Table 2. Selected Congressionally Mandated Federal Health Reports that Feature the Health of Blacks in the United States**

Federal publication	Year of Release	Summary
Health, United States, 1983	1983	The release of the Health, United States, 1983 indicated that infant mortality rates for Black infants were nearly twice as high as White infants. These findings encouraged HHS Secretary Margaret Heckler to establish a Task Force on Black and Minority Health in 1984, resulting in the Heckler Report.
Secretary's Task Force Report on Black and Minority Health (Heckler Report)	1985	The Heckler Report described Black, minority health and Black/White mortality disparities in the areas of: cancer, cardiovascular disease and stroke, chemical dependency, measured by deaths due to cirrhosis, diabetes, homicide and accidents (unintentional injuries), and infant mortality.
Health, United States, 1990	1990	In 1990, Health, United States featured a chartbook on minority health that consisted of 33 charts and accompanying text on selected health topics including: prenatal care, low birth weight, infant mortality, death rates and health status.
Healthy People 2000	1990-2000	Reducing health disparities was added, as an overarching goal of Healthy People 2000. This federal initiative also established objectives, targets and measures applicable to racial and ethnic groups.
National Healthcare Quality and National Healthcare Disparities Reports	2003	Based on recommendations from the Institute of Medicine in 2002, the first National Healthcare Quality and Disparities Reports were released in 2003.
Healthy People 2020	2010-2020	Healthy People 2020, included a "place-based" organizing framework on social determinants of health with the goal of creating social and physical environments that promote good health for all.
National Healthcare Quality and Disparities Reports	2015	The National Healthcare Quality Report and National Healthcare Disparities Report were combined into a single report for the first time in 2015.
National Healthcare Quality and Disparities Reports: Chartbook on Healthcare for Blacks	2016	The Chartbook on Healthcare for Blacks is part of a series related to the National Healthcare Quality and Disparities Report. This chartbook summarizes trends in healthcare for the Black population related to access to health care and National Quality Strategy priorities.
Health, United States, 2015: Special Feature on Racial and Ethnic Health Disparities	2016	In 2016, Health, United States included a special feature of charts on racial and ethnic health disparities. These charts provide detailed comparisons of key measures of mortality, natality, health conditions, health behaviors, and healthcare access and utilization, by race, race and ethnicity.

Recommendations for racial and ethnic minority data consistent with those included in the Heckler Report have been reported in subsequent years by academicians, policy leaders, and the federal government. In 1999, the U.S. Department of Health and Human Services (HHS) Data Council and the Data Workgroup of the HHS Initiative to Eliminate Racial and Ethnic Disparities in Health produced a report titled *Improving the Collection and Use of Racial and Ethnic Data in Health and Human Services*. The report provided recommendations and a long-term strategy for improving the collection and analysis of racial and ethnic data across HHS and its agencies. In 2005, the National Committee on Vital and Health Statistics released the report *Eliminating Health Disparities: Strengthening Data on Race, Ethnicity, Language in the U.S.*, providing recommendations to improve data collection in these demographic areas.

Later in 2002 at the request of Congress, the Institute of Medicine (IOM) released the report *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care* that recommended improved data collection and reporting on healthcare access and utilization by race, ethnicity, socioeconomic status, and language, as well as monitoring progress toward the elimination of healthcare disparities [11, 12]. Additionally, in 2009, the IOM report *Race, Ethnicity, and Language Data: Standardization for Health Care Quality Improvement* included recommendations for additional specificity for data collection and reporting for racial and ethnic populations, including Blacks.

Several congressionally mandated reports document the health and healthcare status among Blacks in the United States (Table 2). Reports such as *Health, United States* and the *National Healthcare Quality and Disparities* highlight the importance of having quality data to elucidate health disparities experienced by Blacks; however, they often do not show disaggregated data for Blacks. These reports have been instrumental in demonstrating the health of Blacks as well as the disparate health status between Blacks and other racial and ethnic groups.

Largely, the health disparities of Blacks in the United States continue to be studied with Blacks at the aggregate level being compared to Whites. While studies have documented differences in health status and health outcomes among Blacks in the United States by nativity, country of origin, and generational status [13-16], these differences are often difficult to describe at the national level. While data on health disparities and inequities are often available for the Black race group as a whole, important differences are masked when data are presented without describing the heterogeneity of the

Black population. Data collections to strengthen the data available to describe the heterogeneity among Blacks in the United States could support the development of policies and programs to eliminate health disparities and achieve health equity for this group. Previous studies on diverse groups among Latinos and Asians have found health differences between foreign-born and second-generation [17]. These findings underscore the importance of accounting for factors such as ethnicity and generational status [18, 19], length of stay in the United States [17] and English proficiency [20]. The ability to disaggregate results by race/ethnicity and account for the role of multiple dimensions, allows for us to learn about specific health disparities and inequities. This book chapter examines several topical areas: 1) heterogeneity of Blacks in the United States, 2) differences in health status among Blacks in the United States, 3) the history of federal race/ethnicity data collections and the implications for Blacks in the United States, 4) HHS health data collections and the implications for Blacks in the United States, 5) analytic considerations and approaches, 6) future directions and conclusions.

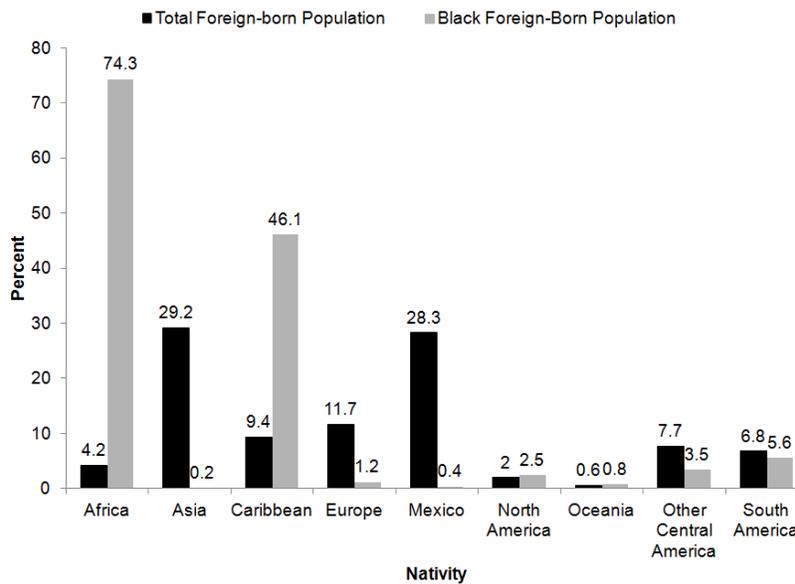


Figure 1. Total Foreign-born and Black Foreign-born Population: Estimates from the 2010-2014 American Community Survey.

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates, Tables S0503, S0504, S0505, S0506 [95-98].

## HETEROGENEITY OF BLACKS IN THE UNITED STATES

According to the 2014 U.S. Census Bureau, American Community Survey (ACS), nearly 40.4 million Blacks (persons who self-identified as Black or African American only) resided in the United States, of whom 36.7 million (91%) were U.S.-born and 3.7 million (9%) were foreign-born [21]. Nearly half (45%) of foreign-born Blacks in the United States reported arriving since 2000 [22]. Foreign-born Blacks are largely from Africa and the Caribbean with a smaller proportion emigrating from other regions (Figure 1). Foreign-born Blacks from Africa primarily come from Nigeria, Ethiopia, Egypt, and Ghana, collectively accounting for 41% of African-born Blacks in the United States [23] whereas Caribbean-born Blacks are primarily from Jamaica, Haiti, and Trinidad and Tobago (37%) [22].

Table 3 shows estimates from the 2013 Current Population Survey on the distribution of the population by generation. In the United States, persons classified as Other (70.3%) represent the largest first-generation population followed by non-Hispanic Whites (19.3%) then non-Hispanic Blacks (10.3%). The highest percentage of the second-generation population consists of persons classified as Other (60.9%) followed by non-Hispanic Whites (31.3%) then non-Hispanic Blacks (7.8%). While a higher percentage of non-Hispanic Whites (75.1%) are classified as the third-generation and higher, non-Hispanic Blacks (14.2%) are the second largest population in this category followed by persons classified as Other (10.8%).

Afro-Latinos also contribute to the heterogeneity of Blacks in the United States and reflect the complexity of identity and race for an ethnic group [24-26]. Among the 1,520 Latinos adults surveyed nationally, the National Survey of Latinos [27] found that one-quarter of all Latinos in the United States self-identify as Afro-Latino, Afro-Caribbean or of African descent with roots in Latin America. Lopez and González-Barrera report that Latinos with Caribbean roots are more likely to identify as Afro-Latino (34%) or Afro-Caribbean (22%) than those with roots elsewhere. Because of Latin America's colonial period, Afro-Latinos reflect the complexity of identity and race from when African slaves were taken to Spanish and Portuguese colonies [28]. Collectively, these findings suggest that the overall diversity of the United States is increasing and highlight the public health importance of advancing health equity across all populations.

**Table 3. Race and Hispanic Origin Distribution of the Population by Generation, 2013**

Generation <sup>1</sup>	Total Population		Race and Hispanic origin <sup>2</sup>					
			Black alone <sup>3</sup>		White alone <sup>3</sup>		Other <sup>4</sup>	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All	311,116	100.0	40,208	12.9	195,330	62.8	75,578	24.3
Generations								
First-generation	40,107	100.0	4,138	10.3	7,754	19.3	28,215	70.3
Second-generation	36,333	100.0	2,819	7.8	11,380	31.3	22,134	60.9
Third-generation and higher	234,677	100.0	33,252	14.2	176,195	75.1	25,230	10.8

Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2013 [99].

Note: Data are shown for the civilian non-institutionalized population including armed forces living off post or with their families on post. Numbers are in thousands.

<sup>1</sup>The foreign born are considered first-generation. U.S.-born individuals with at least one foreign-born parent are considered second-generation. U.S.-born individuals with two native parents are considered third-and-higher generation.

<sup>2</sup>Hispanic refers to people whose origin is Mexican, Puerto Rican, Cuban, Spanish-speaking Central or South American countries, or other Hispanic/Latino, regardless of race.

<sup>3</sup>Data are shown for single race selection for non-Hispanic Blacks and non-Hispanic Whites.

<sup>4</sup>Other category includes American Indian and Alaska Native alone; Asian alone; Native Hawaiian and Other Pacific Islander alone; Hispanic White; and Two or More Races.

Blacks have entered in the United States through voluntary and involuntary migration since the 17<sup>th</sup> century [29, 30]. Most U.S.-born Blacks can trace their roots to the Transatlantic Slave Trade [31]. However since the late 19<sup>th</sup> century after the abolishment of slavery, Blacks have voluntarily entered into the United States. In more recent history, African-born Blacks are more likely to emigrate on diversity visas and as refugees [32] than Caribbean-born Blacks who typically relocate to the United States for family reunification [33]. These migratory patterns result in a diverse group of Blacks in the United States that represent a vast array of languages as well as cultural beliefs and practices and health seeking behaviors. The rich and growing heterogeneity of Blacks in the United States underscores the need for granular data collections to properly identify, track and monitor the health status for this diverse population.

## **DIFFERENCES IN HEALTH STATUS AMONG THE BLACKS IN THE UNITED STATES**

Although the diversity within the Black race group has been noted, national health data are continuously reported in the aggregate. Additionally, health disparities experienced by Blacks in the United States described with federal data have largely compared Blacks to Whites at the aggregate level. Compared to Whites, Blacks have higher rates of chronic diseases, including higher incidence of all cancers combined, higher prevalence of diagnosed diabetes, and hypertension. National estimates on multiple causes of death as well as racial and ethnic differences in mortality are produced from data collected by the Centers for Disease for Control and Prevention (CDC), National Center for Health Statistics (NCHS), National Vital Statistics Systems (NVSS). Black-White disparities in mortality have been well documented with cancer mortality rates remaining 30% higher for Blacks relative to Whites in 1985 and in 2013 (Table 4). Over time, the mortality rate for cardiovascular disease and stroke has worsened with the Black-White disparity increasing from 20% higher for Blacks in 1985 to 30% higher in 2013 (Table 4). However, the Black-White disparity in deaths due to cirrhosis has decreased from 70% higher in 1985 to 30% higher in 2013. While the mortality rate for diabetes has declined from 110% higher in 1985 to 100% higher in 2013, the infant mortality rate remains a persistent disparity for Blacks relative to Whites for nearly 30 years. Figure 2 shows data from the 1999-2014 Multiple Cause of Death File on the crude infant mortality rate by race and ethnicity. Blacks (1,243.7/100,000) had the highest infant mortality rate which was three times higher than the Asian or Pacific Islander (400.6/100,000) infant mortality rate. According to the CDC, the infant mortality rate is often used to measure the health and wellbeing of the nation and public health agencies, healthcare providers, and various community stakeholders are working together to reduce the observed racial disparities in the U.S. infant mortality rate [34].

Research suggests that U.S.-born and foreign-born Blacks may have differing health profiles [35] in multiple conditions where an aggregate Black-White difference has been documented. Though a higher rate of Black infants are born at low or very low birth weight than White infants, foreign-born Blacks fare better than U.S.-born Blacks [36, 16]. Compared to U.S.-born Blacks, foreign-born Blacks experienced lower rates of cardiovascular disease (CVD) mortality as well as lower prevalence of morbidity and risk for

developing CVD. Fang and colleagues (1996) found that Caribbean-born Blacks diagnosed with CVD experienced lower coronary heart disease mortality rates than U.S.-born Blacks. Also, Caribbean-born Blacks experienced death rates from these conditions at rates similar to Whites in the United States [35]. Grey (2013) found that African immigrants collectively had lower prevalence of hypertension than U.S.-born Blacks but had higher prevalence of hypertension than the general U.S. population [37]. Caribbean-born Blacks had a lower likelihood of cardiovascular disease risk factors such as high cholesterol and fewer limitations from hypertension than U.S.-born Black Caribbeans and U.S.-born Blacks [38]. U.S.-born Blacks tend to experience a higher prevalence of diabetes than foreign-born Blacks [38, 39, 37].

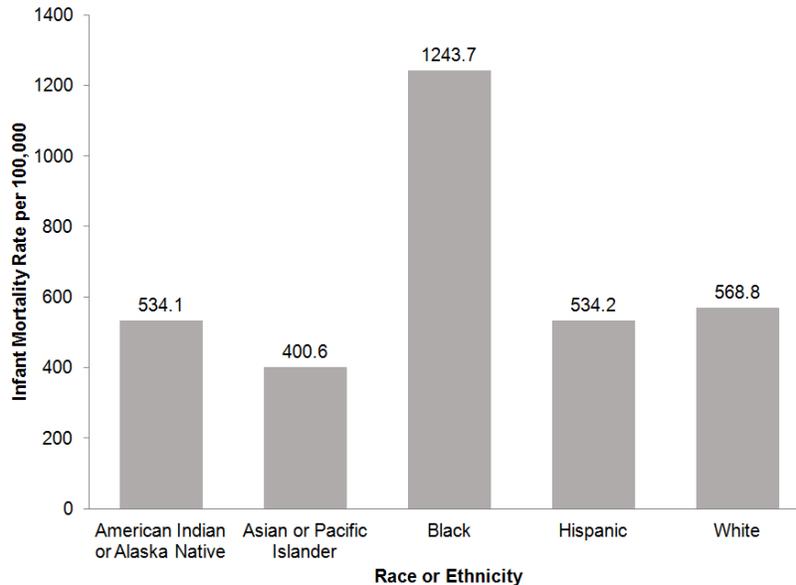


Figure 2. Crude Infant Mortality Rate (per 100,000) by Race or Ethnicity, 1999-2014.

Note: Infant mortality reflects deaths at less than 1 year and crude rate per 100,000 is shown.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2014 on CDC WONDER Online Database, released 2015. Data are from the Multiple Cause of Death Files, 1999-2014, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/mcd-icd10.html>.

**Table 4. Relative Black - White Differences in Mortality Rate: 1985 and 2013**

Cause of Death	1985	2013
	Blacks compared to Whites	Blacks compared to Whites
Cancer	30% higher	30% higher
Cardiovascular disease and Stroke	20% higher	30% higher
Cirrhosis	70% higher	30% higher
Diabetes	110% higher	100% higher
Infant Mortality	110% higher	110% higher

Note: These data represent the relative difference between Blacks and Whites for multiple causes of death in 1985 and 2013. For example, in 1985, the cirrhosis mortality rate for Blacks was 70% higher than Whites.

Source: National Conference on Health Statistics 2015. Plenary Session. *Moment of Opportunity: Reducing Health Disparities and Advancing Health Equity* Available from: <http://www.cdc.gov/nchs/events/2015nchs/presentations.htm>.

Health characteristics have been shown to vary among foreign-born Blacks in the United States [40-42]. Reed et al. (2012) found that African-born Blacks who had resided in the United States for over 15 years were more likely to rate their health as fair/poor compared to recent immigrants [42]. Compared to African-born Blacks who recently immigrated to the United States, the same study reported that those who have been in the United States for more than 15 years were 1.4 times more likely to report having a chronic health condition. Using 11 years of data from the National Health Interview Survey (2002-2012), Table 5 shows significant differences in measures of health and well-being by nativity and years in the United States [40, 41]. A higher percentage of foreign-born Blacks who lived in the United States for less than 10 years (40%) lacked health insurance coverage compared to foreign-born Blacks who lived in United States for 10 years or more (21.7%). A lower percentage of foreign-born Blacks who lived in the United States for less than 10 years had a usual place for preventative care, were classified as a current smoker, and diagnosed with hypertension compared to the foreign-born Blacks who lived in the United States for 10 years or more. However, a lower percentage of foreign-born Blacks who lived in the United for 10 years or more were classified as obese compared to those who lived in the United States for less than 10 years. These intra-group differences are often masked when data are aggregated into a single racial category.

**Table 5. Demographic and Health Characteristics among U.S.-born and Foreign-born Blacks (Age 18-64 years) in the United States: National Health Interview Survey 2002-2012**

	U.S.-born	Foreign-born: < 10 years in the United States	Foreign-born: ≥ 10 years in the United States	p-value
Age (SD ± Mean)	39.0 ± 14.5	32.6 ± 10.6	41.7 ± 12.4	<0.001
Some college or greater	49.8	49.7	61.0	<0.001
Married	42.1	53.1	53.9	<0.001
Ratio of income to poverty				
Less than 1.00	22.6	52.3	25.1	<0.001
1.00 to 3.99	52.3	53.8	16.3	
4.00 or greater	25.1	52.5	34.4	
No health insurance coverage	22.0	38.6	21.7	<0.001
Usual place for preventive care	50.3	30.1	48.4	0.001
Current smoker	23.7	6.6	9.5	<0.001
Weight Status (BMI, kg/m <sup>2</sup> )				
Healthy weight (18.5 kg/m <sup>2</sup> to 24.9 kg/m <sup>2</sup> )	26.3	37.3	33.0	<0.001
Overweight (25.0 kg/m <sup>2</sup> to 29.9 kg/m <sup>2</sup> )	32.2	34.1	41.8	
Obese (30.0 kg/m <sup>2</sup> or more)	41.5	28.6	25.5	
Diagnosed hypertension	37.3	24.4	29.0	<0.001

Note: Estimates are presented from the 2002-2012 National Health Interview Surveys (NHIS).

Sampling weights were used to produce national estimates that were representative of the civilian non-institutionalized U.S. population. The analysis was restricted to non-Hispanic Black/African American adults between the ages 18 to 64 years who specified their nativity or length of time in the United States. This yielded a final sample of 38,061 non-elderly Black adults. The chi-square test was used to test for statistically significant differences across categories of nativity and years in the United States. [40, 41].

Using data from the Current Population Survey, the Pew Research Center reported that a higher percentage of foreign-born adults (34%) compared to second-generation adults (19%) lack health insurance [43]. However, a lower percentage of second-generation of Blacks (23%) lack health insurance than foreign-born Blacks (28%) [43]. Increasing evidence suggests that greater length of stay in the U.S. is associated with worse health outcomes among foreign-born populations. Acevedo-Garcia et al. (2010) found that foreign-born individuals were less likely to rate their health as poor/fair compared to third-generation individuals [17]. Singh et al. (2009) examined racial and

ethnic disparities in obesity prevalence by nativity and generation among children and adolescents and reported that foreign-born children had a 26% lower odds of obesity than U.S.-born children. Compared to U.S.-born White children, the adjusted odds of obesity were 64% higher for U.S.-born Blacks, 55% higher for second-generation Hispanics, and 63% lower for foreign-born Asians [19]. Acevedo-Garcia et al. (2005) examined the relationship between immigration and smoking [18]. They found that being second-generation (i.e., U.S.-born) with two foreign-born parents was protective against smoking whereas, having only one foreign-born parent was not protective against smoking [18]. Also, compared to Whites, being second-generation with foreign-born parents was protective against smoking for racial and ethnic minorities [18]. This protective effect of smoking for the second-generation was also observed when comparing low-income to high-income individuals [18].

### **Acculturation of Blacks in the United States**

Capturing and reporting data on nativity, country of origin, or generational status goes beyond demonstrating the heterogeneity of the Black population or describing the cultural identity of certain groups. These distinctions are also proxy indicators for acculturation. Acculturation has been described as the constant interaction between two distinct and independent cultures that results in individuals and groups modifying behaviors native to their country of origin [44]. Acculturation is comprised of many aspects, inclusive of changes in cultural practices, values, and identification [45]. While the health implications of each of the attributes have been documented in the acculturation literature, the effects of acculturation on health are complex and may not be fully understood due to their multidimensional nature [45].

Numerous studies have reported associations between race, ethnicity, and acculturation status and health [46-49]. Acculturation plays an important role in individuals' health outcomes as well as their ability to access services, have successful healthcare interactions, and make informed decisions, all of which affect health status [8, 11, 50]. There are many components of acculturation. One facet that may impact health in particular is the degree to which an individual maintains ties to culture of the country of origin. Various aspects of culture, such as behavior, diet, or family environment that are related to health status can be transformed through acculturation. Further, the effects of acculturation may differ depending on the characteristics of the population

being examined, the acculturation measures used, multiple contextual factors, and other factors such as an immigrant's initial health status upon arrival to the United States [51]. Acculturation may be associated with the adoption of unhealthy lifestyles that negatively affect health over time (smoking, substance abuse, diets high in fat, etc.), but may also be associated with improved access to care and the use of preventive health services which positively affects health [52].

Collecting information of the differences in health observed among Blacks by acculturation proxies may also assist with identifying health and healthcare disparities, and designing policies and programs aimed at their reduction. Acculturation of Blacks in the United States is also a consideration for the development of culturally tailored health programs and policies for this group. Providing services that are reflective of and responsive to specific community needs improves healthcare quality by reducing linguistic and cultural barriers [53]. Issel (2004) suggests that cultural identification may provide insight to key behavioral patterns displayed by certain groups. Knowledge of these behaviors can help health professionals tailor interventions by identifying what groups should be targeted for certain disparities reducing interventions and how to effectively implement the intervention [54-56]. Thus, collecting data on nativity, country of origin, and generation, provides information that describes the heterogeneity of the Black population, and may also provide important information on acculturation.

Studies of the influences of language use and English proficiency among Black immigrants, particularly those of African descent, present both positive and negative relationships. Reed et al. (2005) found that African immigrants participating in the English version of the National Health Interview Survey possessed higher self-reported health [47]. However, Okafor and colleagues (2013) report that low language acculturation among Sub-Saharan African immigrants participating in the 2003 New Immigrant Survey was associated with poor self-rated health [57, 58]. In addition to self-reported health, language influences chronic disease risk factors and healthcare access. English language use among low-income Blacks has been linked to lower obesity risk. Simbiri and colleagues (2009) found that Francophone Africans possessed lower English proficiency than African immigrants from English speaking countries. The lessened proficiency resulted in healthcare access disparities among French-speaking African immigrants [46].

## **The Influence of Socioeconomic Status on Health**

Socioeconomic status (SES) is generally measured through education, income, wealth, and employment. SES disparities exist between Blacks and Whites in the United States [59]. Compared to Whites, Blacks have lower earnings at comparable levels of education and less wealth at every level of income [60]. According to the 2012 U.S. Census Current Population Survey, nearly 27% of Blacks lived below poverty, compared to 13% of Whites [61]. Among adults 25 years and older who are in the labor force, a higher percentage of Blacks (31.3%) compared to Whites (26.7%) had completed high school education only whereas a higher percentage of Whites (37.7%) compared to Blacks (27.3%) had earned a Bachelor's degree or higher [62]. In March 2015, the Bureau of Labor Statistics (BLS) reported that a higher percentage of Whites (60%) compared to the Blacks (54.8%) were employed [63]. Additionally, the BLS reported that the unemployment rate for Blacks (10.1%) was nearly twice that of Whites (4.7%) [63]. Overall, these observed racial differences in SES measures greatly contribute to the persistent disparities in health observed among Blacks in the United States.

Although Blacks collectively face negative socioeconomic disparities in comparison to Whites, these differences are also evident within the Black race group. African-born Blacks tend to be more educated than their U.S.-born and other foreign-born Black counterparts. Using data from the 2013 U.S. Census Bureau American Community Survey, the Pew Research Center reported that a higher percentage of African-born Blacks (35%) in the United States possessed a bachelor's or advanced degree compared to Blacks born in South America (25%), Caribbean (20%), and Central America (17%) [22]. Among foreign-born Blacks, South American-born Blacks (\$55,000) have a higher median income than Blacks born in Africa (\$43,000), Caribbean (\$43,000), and Central America (\$41,400) [22]. This report also showed that a lower percentage of foreign-born Blacks (20%) versus U.S.-born Blacks (28%) lived in poverty [22]. Specifically, among foreign-born Blacks, Africans (22%) had the highest percentage living in poverty, followed by Central Americans (19%), Caribbeans (18%), and South Americans (14%) [22].

A 2013 report by the Pew Research Center documented demographic and health differences among adults (18 years and over) by race, ethnicity and nativity (U.S.-born and foreign-born/first-generation), and successive generations (U.S.-born second-generation and U.S.-born third-generation or higher) [43]. Second-generation Blacks (40%) represented the largest group to earn a Bachelor's degree or higher compared to 31% of foreign-born and 20%

of third-generation Blacks. Second-generation Blacks tend to have a higher median income than all Black adults combined [43]. While a lower percentage of second-generation Blacks (66%) compared to foreign-born Blacks (72%) were in the labor force in 2012; their unemployment rate (16%) was higher than foreign-born Blacks (12%) [43]. However, poverty for second-generation Blacks (15%) was lower than foreign-born Blacks (21%) and all Black adults (23%) [43].

**Table 6. Changes in White and Black Race Classifications in the Decennial U.S. Census, 1790-2010**

Years of Decennial U.S. Census	White Race Classification	Black Race Classification
1790, 1800, and 1810	Free White Females and Males	Slaves
1820, 1830 and 1840	Free White Females and Males	Slaves; Free Colored Persons
1850, 1860, 1870, and 1880	White	Black; Mulatto
1890	White	Black; Mulatto; Quadroon; Octoroon;
1900	White	Black (Negro or of Negro Descent)
1910 and 1920	White	Black (Negro); Mulatto
1930, 1940, 1950, and 1960	White	Negro
1970	White	Negro or Black
1980 and 1990	White	Black or Negro
2000 and 2010	White	Black, African American, or Negro

Source: Beverly M. Pratt, L. Hixson, and N.A. Jones. "Infographic: Measuring Race and Ethnicity Across the Decades, 1790-2010." 2015; Available from: [http://www.census.gov/population/race/data/MREAD\\_1790\\_2010.html](http://www.census.gov/population/race/data/MREAD_1790_2010.html).

Socioeconomic status is considered a social determinant of health [64]. Social determinants of health are the conditions in which people are born, grow, live, work and age, that are shaped by the distribution of money, power and resources at global, national and local levels [8, 65]. Social determinants of health have been posited as the underlying causes of the observed racial and ethnic disparities in health, and include factors such as transportation, housing, and neighborhood characteristics as well as socioeconomic measures [64, 59].

It is imperative to acknowledge the influence of social determinants on poor health outcomes and inequities experienced by Blacks in the United States. Recent research suggests that the SES differences in health are typically larger than racial ones [66]. Additionally, differences in health status are also observed among foreign-born Blacks when examined by sex. Reporting differences in health status data by race, SES, sex, and nativity may reveal targets for intervention and heighten awareness of policy makers of the magnitude of these inequities and their detrimental consequences on health. Failure to present health data stratified by SES within racial/ethnic groups may obscure the social factors that affect health and reinforce negative racial stereotypes [66].

### **HISTORY OF FEDERAL RACE/ETHNICITY DATA COLLECTIONS: IMPLICATIONS FOR BLACKS IN THE UNITED STATES**

Federal definitions and methodology for collecting race and ethnicity data commenced with the 1790 decennial census, and continue to evolve. While data on the Black race category has been one of the most consistently collected race categories, federal policy for racial and ethnic data collections have had implications for the measurement of the Black race and such data collections have frequently changed over time. As shown in Table 6, data on the Black race category in the decennial census has been collected as Black or mulatto (1850-1880); Negro (1930-1960), Negro or Black (1970); Black or Negro (1980 and 1990); Black, African American or Negro (2000 and 2010). Beginning in 2014, the U.S. Census Bureau, eliminated the Negro option and used Black or African-American on its surveys. Along with these changes, individuals have been able to self-report Hispanic ethnicity beginning in 1970, and single or multiple race starting in 2000. With these two changes, persons who self-identify as Black/African American can be classified Hispanic or multi-racial.

While the Census Bureau has the longest history of collecting data on race and ethnicity among federal agencies, the collection of data on race and ethnicity at the federal level was transformed by the Office of Management and Budget (OMB) Directive 15 in 1977. This directive standardized the collection and reporting of data on race and ethnicity for federal agencies. Racial and ethnic categories set forth in the standard should not be interpreted

as being scientific or anthropological in nature, and were developed in part to support for civil rights enforcement and for program administrative reporting. For agencies wishing to collect data on race and ethnicity, it established standards for the collection of race in four categories: White; Black; Asian, Asian American or Pacific Islander; and Northern American Indian or Alaska Native and eliminated the “other” race category (Table 7). It also required that Hispanic ethnicity be collected as a separate data category from race. OMB Directive 15 was revised in 1997 to include three major changes: 1) the number of race categories was expanded from four to five; 2) persons could identify as belonging to more than one race; and 3) Hispanic ethnicity was changed so it precedes the race question. The new groups under the revision included: White; Black/African American; Asian; American Indian or Alaska Native; Native Hawaiian and Other Pacific Islander (Table 7).

These Directives had major implications for data collections sponsored by the U.S. Department of Health and Human Services (HHS). HHS collects and reports health related data that are necessary to monitor the health and healthcare of the United States, such as those collected through population surveys and surveillance systems; or the purchasing or delivering of healthcare or services (Table 5). HHS has developed and implemented policies that reinforce the collection of data on Blacks and other racial/ethnic minority groups. In 1997 HHS issued the *Policy Statement on Inclusion of Race and Ethnicity in HHS Data Collection Activities* which required the collection of the minimum standard categories of racial and ethnic groups specified in the Office of Management and Budget (OMB) Directive 15 and future revisions in all HHS data systems.

HHS policy for race and ethnicity in health data collections was strengthened through the Affordable Care Act. Section 4302 of the Affordable Care Act (*Understanding health disparities: data collection and analysis*) focuses on the standardization, collection, analysis, and reporting of health disparities data (Table 7). It required that the HHS Secretary adopt data collection standards for race, ethnicity, sex, primary language and disability status. The law requires that, once established, these data collection standards be used, to the extent practicable, in HHS sponsored data collections with self-reported data. As part of Section 4302 implementation, data standards for major population health surveys sponsored by HHS were developed for these demographic areas and promulgated on October 31, 2011. The new data standards improve the quality of HHS data collections by establishing a consistent, uniform way to capture, record and report data on race and ethnicity (Table 7). These standards also recommend additional granularity

(beyond the OMB minimum) for the Asian race category and Hispanic ethnicity, and for the first time, standardized collection of language and disability status data. However, no required specificity was added to the White, Black or American Indian/Alaska Native race groups (Table 7).

**Table 7. Federal collection and reporting of race and ethnicity**

	OMB Directive 15 (1977) <sup>1</sup>	OMB Directive 15 (1997) <sup>2</sup>	HHS Data Collection Standards (2011) <sup>3</sup>		
Ethnicity data standard	Not of Hispanic origin	Not of Hispanic origin	Not of Hispanic, Latino/a, or Spanish origin	} <i>These categories roll-up to the Hispanic or Latino category of the OMB</i>	
	Hispanic origin	Hispanic origin	Mexican, Mexican American, Chicano/a Puerto Rican Cuban Another Hispanic, Latino/a or Spanish origin		
Race data standard	White	White	White		} <i>These categories are part of the current OMB standard</i>
	Black	Black or African American	Black or African American		
	North American Indian or Alaskan Native	American Indian or Alaska Native	American Indian or Alaska Native		
	Asian, Asian American or Pacific Islander	Asian	Asian Indian Chinese Filipino Japanese Korean Vietnamese Other Asian		} <i>These categories roll-up to the Asian category of the OMB standard</i>
		Native Hawaiian or Other Pacific Islander	Native Hawaiian Guamanian or Chamorro Samoan Other Pacific Islander	} <i>These categories roll-up to the Native Hawaiian or Other Pacific Islander category of the OMB</i>	

The heterogeneity of the Black population illustrates the importance of collecting more granular data within this group. As the HHS data collection standards are considered minimums, entities are permitted to add additional granularity as long as the categories can be “rolled-up” to the minimum. As research continues documenting differences experienced among Blacks in the United States, it may be important to review the granularity of the data collection for this group, and the most appropriate strategies for national, state and local data collections.

### **Enhancements to Race and Ethnicity Data Collection: 2020 Decennial Census**

Additional enhancements to race and ethnicity data collection are being considered for the Decennial Census. The U.S. Census Bureau has been testing changes to the race and Hispanic origin questions, as part of the 2015 National Content Test (NCT) for the 2020 Decennial Census [67]. The NCT will examine both content and administrative changes for race and Hispanic origin. Pertaining to content, alternative wording for questions that do not mention “race” or “origin” will be tested. The Census Bureau is also pilot testing separate versus combined questions for race and ethnicity along with the inclusion of a Middle Eastern Northern African (MENA) category. The option for a combined question permits all respondents to write in one or more specific race or origin group which they self-identify. This change would permit persons who select a Black race category to specify and write in an origin/heritage group, such as African American, Jamaican, Nigerian, Haitian, Ghanaian, or Ethiopian, thus improving granularity to an extent. Any changes to the race and ethnicity question on the 2020 Census would ultimately impact all Census data collections such as the annual American Community Survey. In terms of major administrative changes, the 2020 Census will optimize self-response by enabling people to respond via multiple modes (internet, paper, or telephone if they call the Census Questionnaire Assistance Center), allowing respondents to submit a questionnaire without a unique identification code, and providing on-line forms in multiple languages [68]. Additionally, administrative record data (information from federal and state governments) and third party data (information from commercial sources) will be leveraged to increase efficiency and effectiveness of data collection operations [68].

**Table 8. Description of Selected HHS-Sponsored Population Surveys**

<b>Survey</b>	<b>Agency</b>	<b>Description</b>
Medical Expenditure Panel Survey (MEPS)	Agency for Healthcare Research and Quality (AHRQ)	Set of large-scale surveys of families and individuals, their medical providers, and employers across the United States. MEPS is the most complete source of data on the cost and use of healthcare and health insurance coverage. MEPS data cover healthcare use and spending, insurance coverage, and accessibility of care.
Behavioral Risk Factor Surveillance System (BRFSS)	Center for Disease Control and Prevention (CDC)	State-based, on-going telephone health survey system, tracking health conditions and risk behaviors in the United States yearly since 1984
Cross-sectional National Vital Statistics System (NVSS)	Center for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS)	The oldest and most successful example of inter-governmental data sharing in Public Health and the shared relationships, standards, and procedures form the mechanism by which NCHS collects and disseminates the Nations official vital statistics on births, deaths, marriages, divorces, and fetal deaths.
National Health Interview Survey (NHIS)	Center for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS)	Since 1957, the NHIS has monitored the health of the nation since 1957. Data are collected on a broad range of health topics are collected through personal household interviews. For over 50 years, the U.S. Census Bureau has been the data collection agent for the NHIS. Survey results have been instrumental in providing data to track health status, health care access, and progress toward achieving national health objectives.
Cross-sectional National Health and Nutrition Examination Survey (NHANES)	Center for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS)	NHANES assess the health and nutritional status of adults and children in the United States. It combines a household interview with a medical examination.

<b>Survey</b>	<b>Agency</b>	<b>Description</b>
National Ambulatory Medical Care Survey	Center for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS)	Cross-sectional survey designed to meet the need for objective, reliable information about the provision and use of ambulatory medical care services in the United States. Findings are based on a sample of visits to non-federal employed office-based physicians who are primarily engaged in direct patient care.
National Hospital Ambulatory Medical Care Survey	Center for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS)	Cross-sectional survey designed to collect data on the utilization and provision of ambulatory care services in hospital emergency and outpatient departments. Findings are based on a national sample of visits to the emergency departments and outpatient departments of non-institutional general and short-stay hospitals.
National Survey on Drug Use and Health (NSDUH)	Substance Abuse and Mental Health Services Administration (SAMHSA)	Annual survey that is the primary source of information on the use of illicit drugs, alcohol, and tobacco in the civilian, noninstitutionalized population of the United States aged 12 years old or older.
Health Outcomes Survey	Centers for Medicare and Medicaid Services (CMS)	The goal of the Medicare HOS is to gather valid, reliable, and clinically meaningful health status data in the Medicare Advantage (MA) program. The HOS is administered annually to a random sample of Medicare beneficiaries drawn from each participating MA plan and surveyed in the spring (i.e., a baseline survey is administered to a new cohort, or group, each year). Two years later, these same respondents are surveyed again (i.e., follow up measurement).
Medicare Current Beneficiary Survey (MCBS)	Centers for Medicare and Medicaid Services (CMS)	Multipurpose survey of a nationally representative sample of Medicare beneficiaries that includes information on socioeconomic and demographic characteristics, health status and functioning, health care use and expenditures, and health insurance coverage.

Adapted from: Guide to HHS Surveys and Data Resources; Office of the Assistant Secretary for Planning and Evaluation U.S. Department of Health and Human Services <https://aspe.hhs.gov/basic-report/guide-hhs-surveys-and-data-resources>.

## **HHS HEALTH DATA COLLECTIONS: IMPLICATIONS FOR BLACKS IN THE UNITED STATES**

HHS data collections are used to monitor the nation's health, and all such collections include data on race and ethnicity (Table 8). These data track the health of diverse populations in the United States and are used to identify and monitor progress toward disparities reduction and elimination, and to guide policy and research. HHS national surveys are a major source of data on Blacks in the United States. This body of surveys collectively provides data on the full spectrum of health and healthcare information, including population dynamics, health status, behaviors and functional status, healthcare access, utilization and expenditures, insurance coverage and financing, as well as social determinants of health and quality of care (Table 8). Data on the health of the Blacks in the United States are also collected administratively, through healthcare delivery, health insurance plan enrollment, and reimbursement for services. Additional administrative health data for Blacks are collected through electronic health records and vital statistics.

Race data in HHS data collections are captured in two primary ways: via self-report or with it being assigned. Self-report is the preferred method of obtaining data on race. Most large-scale health data survey systems collect data via self-report through various modes (e.g., in person interview, phone, paper). Race collected via administrative records may be self-reported or assigned. Misclassification errors have been associated with observer assigned race and ethnicity, and the frequency of this error varies by racial/ethnic group [69, 70]. This error tends to be lower for Blacks, when compared other racial/ethnic groups such as Hispanics or American Indians/Alaska Natives [71].

### **ANALYTIC CONSIDERATIONS AND APPROACHES**

Blacks are included in the samples for all major HHS surveys. HHS and other federal surveys have used special statistical techniques, such as an oversampling, to collect representative data on Blacks at the national level. Usually, population samples are based on the proportional percentage of a particular demographic group to the general population. With the oversample, more Blacks and other demographic groups are sampled than would typically result if everyone in the general population had a chance of being selected [72,

73]. Oversamples are designed to sample larger numbers of certain subgroups of particular public health interest. Oversampling is done to increase the reliability and precision of estimates of health status indicators for these smaller populations. The National Health and Nutrition Examination Survey (NHANES) includes Blacks as part of its current oversample, using a multi-stage sampling approach [74].

Collecting data on measures of acculturation (and language) are important in order to examine the heterogeneity of the Black population in the United States [75]. Language is considered an acculturation measure, and as part of the Affordable Care Act Section 4302 data collection standards, major surveys sponsored by HHS collect self-reported data on English proficiency. Data on nativity, country of origin, generational status, and other proxies of acculturation are collected less frequently in major HHS data collections. While some HHS surveys collect data on nativity, fewer collect data on country of origin or nativity status. When data on country of origin are collected, these data are often aggregated to a region of the world when released as part of a public use file and do not permit the analysis of second or third-generation individuals. The absence of such measures limits the ability to identify groups within the Black population and the potential to examine intra-group health differences.

Using most national datasets, small samples of Blacks may limit analyses that could be conducted to measure the health status by nativity, country of origin or generation. Even with oversamples, there still may be limited data to support more granular analyses for Blacks. Data on these measures are only collected in select major surveys. Performing granular analysis on groups of Blacks with a single year of survey data often produces unreliable estimates due to insufficient sample size and survey documentation often encourages analysts to pool data [72, 74]. Pooling data to combine multiple survey years is a technique that may provide a larger sample to conduct analyses to explore health differences among diverse groups of Blacks in the United States. For example, Wilson-Frederick et al. (2015) analyzed 11 years of pooled data from the National Health Interview Survey to examine health and demographic characteristics among a diverse group of Blacks by sex, nativity and length of time in the United States [40, 41]. However, even this approach comes with caveats because each variable in the pooled analysis needs to be included in each survey year of data.

National data are also limited in reporting data on specific groups of Blacks. Even with pooling survey data, it may only be possible to stratify data by nativity and not by country of origin among Blacks (e.g., Guyana, Nigeria,

Sierra Leone, etc.) or generation. Again, even with pooled data, it may be difficult to report data by country of origin due to small sample sizes, lack of reliability of estimates and privacy restrictions. The removal of direct identifiers, such as name, is not sufficient to de-identify a dataset--some of the remaining variables can serve as indirect identifiers, which in combination can uniquely identify individuals within the population or a well-defined segment of the population. Typically, data on nativity and country of origin are collapsed into regions of country of origin, such as Caribbean or Africa, with limited specification of the actual self-reported place of birth selected by the survey respondent. While privacy and confidentiality of the respondents' identity are important, collapsing countries in datasets also doesn't always reflect similar geographies, culture or language [76, 77].

Indirect estimation has been used to identify racial and ethnic populations. Surname analysis is one indirect estimation technique that uses last names to determine the probability that a person belongs to a particular racial or ethnic group [78]. Surname analysis has been used to ascertain race/ethnicity for Hispanics and Asians. This technique could also be explored to identify specific groups of Blacks in the United States, such as Afro-Latinos or for persons from certain African countries. Geocoding is another technique that has been used to link area-based SES measures from the U.S. Census Bureau to surveys or administrative data for an individual or to measure community well-being [78]. Geocoding has been used for the aggregate Black population, but this technique could be explored further as an approach to assess the health and well-being of communities that are predominately comprised of foreign-born Blacks [79-82].

### **Targeted Studies on Diverse Populations in the United States**

Several studies have demonstrated the benefits of collecting data with sufficient sample size to produce granular estimates for racial and ethnic populations [83, 84]. Examples of such studies also exist for Hispanics/Latino and Asians. The National Latino and Asian American Study (NLAAS) examined multiple domains of mental illness and services used by 2,095 Latinos and Asian Americans [83]. The ongoing Hispanic Community Health Survey/Study of Latinos (HCHS/SOL, N=16,000) included at least 2000 persons in each of the following origin designations: Mexican, Puerto Rican and Dominican, Cuban, and Central and South American [85]. HCHS/SOL examines the prevalence of and risk factors for cardiovascular disease,

auditory disorders and preventive health behaviors. The data produced by these types of studies provide important information to identify intra-group differences in health and healthcare and reveal potential opportunities for reducing health disparities for a particular racial or ethnic group.

Targeted studies represent another approach to obtain granular data on Blacks in the United States. One landmark example is the Jackson Heart Study (JHS) [86]. The JHS is a single site, multi-year large, community-based, observational study investigating of causes of cardiovascular disease (CVD) in Blacks from Jackson, Mississippi, initiated in 1998. The completed JHS cohort examinations have produced extensive longitudinal data on traditional and putative CVD risk factors, socioeconomic and sociocultural factors. The final cohort of 5,301 participants includes 6.59% of all Black residents in the Jackson Metropolitan Statistical Area (MSA) age 35-84 years (N=76,426; U.S. Census 2000). While this study provided key information for Blacks in the United States, the purpose of this study was not to provide data on Blacks by nativity or generation.

To our knowledge, there have only been a few targeted studies addressing the health needs of diverse groups of Blacks in the United States. For example, The National Survey of Black Americans (NSBA) series was initiated in 1977 to collect data on major social, economic, and psychological aspects of life experiences among Black adults [87]. This series was developed to address the limitations in the existing research literature on Blacks in the United States [87]. The size and representativeness of the sample continue to be used by researchers to study the heterogeneity of the adult Black population.

The National Survey of American Life (NSAL; N = 1,006) explored intra- and inter-group racial and ethnic differences in mental disorders and the mental health of Americans of African descent [84]. Among persons 18 years and older, the study samples included U.S.-born Blacks as well as the first ever national probability study of Blacks of immediate Caribbean descent (Afro-Caribbeans) and non-Hispanic Whites (Americans largely of European descent). Studies such as the Jackson Heart Study and the NSAL have provided valuable information on the Black population in the United States. Findings from these studies have provided important information to identify intra-group differences in health and healthcare, as well as where health disparities for Blacks may exist.

## FUTURE DIRECTIONS

The Black population in the United States is very diverse. The increasing proportion of foreign-born Blacks entering the United States is contributing to the changing demographics of this racial group. The diversity of Blacks, as captured by country of origin, also contributes to the heterogeneity of this group. Data on the health of Blacks in the United States has largely been collected and reported at the aggregate level. However, this convention of data collection and reporting may not be sufficient to assess the health needs of all Blacks.

Despite routine health data collections on Blacks in the United States, challenges still remain in describing the heterogeneity of the group, and identifying intra-group variation and differences. Such information is increasingly critical to develop policies and strategies to reduce racial and ethnic disparities in health and to identify the root causes of health inequities. Despite increasing evidence [88, 14, 89-91, 23] of health differences among Blacks in the United States, limited national data systems collect adequate information to examine health status and access to healthcare among diverse groups of Blacks. This lack of specificity in the Black race group limits the ability to identify and measure intra-group differences and to adequately describe the health of the Black population in the United States [14].

Traditional methods to collect data on heterogeneous populations such as Blacks may not adequately capture the diversity of particular groups. Presently, data on Blacks are collected in HHS data collections without uniform inclusion of nativity, country of origin or generational status measures across systems, which greatly hinders efforts to analyze and report data on diverse groups of Blacks. In addition to expanding collection of data on measures of nativity, country of origin, and generation, routinely collecting data on race and origin/heritage groups<sup>1</sup> for Blacks as part of the race question--independent of a separate country of origin question--may be one option to explore. As the U.S. Census Bureau continues testing alternative race questions that include options for respondents to select specific origin/heritage groups, other federal agencies and stakeholders may want to closely follow this process and explore the feasibility of updating/revising race collection for Blacks and other heterogeneous racial and ethnic groups in the United States.

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<sup>1</sup> An origin or heritage group can be viewed as the nationality group, lineage, or country of birth of the person or the person's ancestors before their arrival in the United States.

Preserving adequate samples of Blacks in HHS data collections is also important. Utilizing oversamples and reviewing sampling strategies may be an approach to ensure that sufficient samples of Blacks are included for analysis. In addition, exploring the feasibility of collecting data on nativity and country of origin through certain administrative data collections could also be an important approach to collect data on the foreign-born population, in particular for electronic health records. Administrative data are generally much less expensive than survey data collections and often have larger sample sizes. As the diversity of Blacks and other racial/ethnic groups in the United States continues to increase, it will be important to capture key characteristics of these groups and continue to examine multiple approaches to collecting these demographic data with sufficient sample sizes.

Routine investigation of intra- and inter-group differences among Blacks--where data are available--is also important. While sample size may not permit annual reporting of Blacks by measures of nativity, country of origin or generation, pooled analyses are an option. Researchers should fully explore the use of federal health data collections to report intra- group health and healthcare differences for Blacks. The recent Chartbook on the Healthcare of Blacks developed by the Agency for Healthcare Research and Quality [5] provides health care examples for Blacks in the United States, however it does not report data in a manner that exhibits the heterogeneity of the population (Table 1). Previously, the U.S. Census Bureau has produced special reports on the foreign-born population in the United States. Acosta and De la Cruz (2011) produced a report that provided estimates on the foreign-born population from Latin America and the Caribbean by nativity [92] without specifying the race and/or ethnicity of the population. In 2014, the U.S. Census Bureau released a report that presented estimates for the foreign-born population by African region and African country of birth [23]. However, the report did not highlight other countries of origin nor specify race or ethnicity of the foreign-born African population. Future special publications or supplements to major reports such as these could explore the feasibility of providing estimates by nativity, race and ethnicity, and generational status to describe the rich diversity of the U.S. population. In addition, HHS could consider producing special reports that present demographic and health estimates on the foreign-born Black population, when the data permit such analyses. Both HHS and other federal statistical agencies could consider exploring the feasibility of producing more granular reports on racial and ethnic populations, particularly Blacks with a designated frequency.

## CONCLUSION

Blacks in the United States are a diverse group, with heterogeneity exemplified through nativity, country of origin and generational status as well as many other demographic and socio-economic characteristics. It is important for the heterogeneity of Blacks in the United States to be fully appreciated and considered when investigating and describing the health of this population. Data have shown differences across multiple health behaviors and health outcomes among Blacks in the United States [40, 41]. Aggregating Blacks in the United States into a single race category and comparing to Whites as is traditionally done, provides important information on health disparities; however, this comparative approach minimizes the critical contributions of nativity, culture, and social context on health status and the heterogeneity within the Black racial category [13]. Lack of adequate data on Blacks in the United States that fully takes into account the heterogeneity of this racial group has implications on properly measuring, monitoring, and identifying appropriate targets for reducing health disparities in this population. Capturing these data could lead to more complete reporting, monitoring, and tracking of intra- and inter-group disparities experienced by Blacks. These data also support the development of culturally appropriate programs and policies to reduce disparities and improve the health status and healthcare access of the Black population in the United States. It is important for U.S. health data systems to accurately capture the health needs of the increasingly diverse racial and ethnic groups in the United States. The ability to collect this information at a granular level that permits analyses by factors such as nativity, country of origin and generation, has the potential to greatly contribute to our understanding of the root causes of health disparities experienced by diverse populations as well as contribute to solutions to achieve health equity.

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