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Culture, Food, and Racism: The Effects on African American Health

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Honors College Thesis
The University of Tennessee at Chattanooga
Health & Human Performance

Examination Date: July 24, 2018

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Abstract

Cultures can be influenced by a number of different factors, one of the most notable being food. Cultural food staples have often traveled from their country of origin to be integrated into the cuisine of another. African slaves for example, used their knowledge of their West African heritage to forage soul food, a well know cuisine in the American South. The adaptations made to food practices during slavery decreased the nutritional value of the previously healthy West African dishes. After creating a relatively unhealthy food culture through slavery, African Americans continued to face persecution at the hands of the government and society at large. Through the institutionalized racism brought about during the Jim Crow era, African Americans were forced into conditions that juristically reduced their access to resources, like adequate housing and education. The lack of housing and education in the African American community inherently breeds poverty, ultimately affecting access to healthy food resources. Although their food access cannot be immediately influenced, the Oldways African Heritage Diet Pyramid will allow African Americans to capitalize on their food culture while utilizing their poor food access. By understanding the food practices of Africans during the 16th century, the researcher will trace the lineage of African food tendencies to the patterns of food choices for African Americans in the US today. The purpose of this research is to shed light on the history of African American food patterns in the United States and how through institutionalized racism African Americans have come to face a higher prevalence of chronic disease.

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Culture, Food, and Racism: The Effects on African American Health Disparities

The first skull predecessors to the modern day humans were found in East Africa, specifically Ethiopia, nearly 200,000 years ago (O'Neil, 2013). From Africa, man spread throughout the world to create different ethnicities and cultures, each population developing according to its survival needs. Expanding the definition of culture, Quantz (1998) says that culture is not only “a social construction created by an inter-related network of people,” but he notes that “it is important to recognize that groups construct culture through experiences within the family and peer group [in addition to] experiences with the larger society” (p. 2). While the center of any culture is traditions, histories, and heritage, all cultures and histories are notably affected by the traditions and customs of external groups acting upon it. For example, African Americans have been influenced by a number of cultures, specifically the combination of a West African heritage and European influence (Bower, 2007).

No aspect of culture is developed in isolation. Instead, culture is developed by an intertwining of practices, one of the most notable being food customs. Human migration and the interaction of cultures is one theory to explain the exchange of crops and food practices. This exchange can be seen in cuisines from all over the world and even in the US. From Asia to the Americas, and around the globe, cultures and food customs have been indefinitely impacted by centuries of interactions. Despite their points of origin, crops have made their way across vast distances and become integral parts of other cuisines and food traditions. Consider the apple for example. Apple pie is considered to be an American staple. Brought from England, the apple was a staple of rural-agrarian diet in England. The majority of apple saplings did not live through the journey to the Americas, forcing colonizers to grow apples from a fresh seed on American soil—in a way, representing a new beginning. A number of founding fathers, like Benjamin Franklin

and George Washington, also grew apples. Apples' ties to the rising colonies eventually brought about the phrase "As American as apple pie", thereby associating itself culturally to the idea of itself "American-ness" (Eschner, 2017). Although apples have strong cultural ties to America, the fruit actually originated in Central Asia. The Asian species *Malus sieversii* is thought to be the main progenitor for the modern day domesticated apple (Bunschoten, 2014).

Food's role is much greater than merely sustenance for survival; it is also a vital element of cultural identity. Food is communal and speaks to the history of a people. Through cuisine, it is possible to see traces of traditions that tie modern generations to ancestors centuries earlier. Michael Naim (2007) explains that food customs are the most enduring aspect of any culture by arguing that "food habits are one of the last characteristics of a culture group to disappear as the culture changes" (Bower, p. 35). This is also true for African Americans. By understanding the food practices of Africans during the 16th century, I will trace the lineage of African food tendencies to the patterns of food choices for African Americans in the United States today.

Forced into new surroundings, West Africans' culture evolved to be compatible for their new environment, beginning with the onset of slavery and lasting to the present. In a need to maintain cultural food practices, the adaptations made during slavery, in addition to segregation and discrimination, resulted in a large number of health disparities for African Americans (Alvarez, 2016). The health of any population is directly influenced by physical activity, political and economic climate, lifestyle choices, and availability and access to resources, and because African Americans face a number of societal barriers, like institutionalized racism, they are more susceptible to a higher prevalence of chronic disease. Based on historical events beginning in West Africa and continuing through segregation, food patterns in the past have come to impact the food choices of African Americans today.

Before the first slaves arrived in America in 1619, their cuisine was comprised of plant based, natural, and healthful components. During their introduction to the Americas, Africans were exposed to harsh conditions on slave ships and on plantations. During slavery, slaves were forced to “adapt and change their foodways creatively as they encountered new nutritional, disease, and work environments” (Bower, 2007, p. 35). Over time, they “transformed themselves into New World African Americans but also became vitally important agents in shaping the culinary tastes... [of] the hemisphere” (Bower, 2007, p 35). Through the adaptations made during slavery, Africans were able to forage a unique cuisine that maintained aspects of its original West African form— thereby creating Soul food. Even after the abolition of slavery, African Americans continued to face barriers at the hands of institutionalized racism, affecting housing, education, and access to resources. A lack of healthy foods combined and a food culture foraged under poor conditions, has caused African Americans to face a higher rate of disease than do their racial counterparts. African Americans have a long, tormented history in the United States, but to understand it properly, the researcher must look before their introduction to the colonies to find its origins.

Columbian Exchange

Scientists believe all the continents were once a large landmass, called Pangea (Stampfil, Hochard, V  rard, Wilhem, & vonRaumer, 2013). Over centuries of continental drift, Pangea separated into the 7 continents as we know them today, creating the New and Old Worlds (Stampfil et al., 2013). Africa, Asia, and Europe remained an intact land mass, while North and South America drifted away, developing apart from the Old World. In 1492 Christopher Columbus sailed from Spain, accompanied by the *Nina*, *Pinta*, and *Santa Maria*, in search of a route by sea to China and India. Believing he was victorious, he and his crew washed ashore in

the Bahamas, officially “discovering” the New World (Kincaid, 2001). His arrival marked the long and unbalanced exchange of cultures, crops, disease, and people between Europe and the New World—the Columbian Exchange (Nunn & Qian, 2010). Upon Christopher Columbus’s arrival, Europeans brought new diseases, livestock, and crops, all while displacing Native Americans. The New World was exposed to diseases like smallpox, chickenpox, measles, typhus, and malaria, which decimated 80-95% of the native population over the next 150 years (Nunn & Qian, 2010). As a result of a decrease in population and a need to produce crops, Europeans needed man power to fulfill demand. The established slavery practices made West Africa a source to fill European labor needs (Kehinde, 2013).

European Need for Laborers

Colonizers had either wiped out or forcibly removed the majority of natives, and paying workers was a financial inconvenience; as a result, they had to look outside of the US colonies to fill this void, and the most cost effective solution was spending a lump sum for a life time of servitude rather than paying consistent wages for labor—thereby justifying the need for slaves (Horn, 2011). Although American colonists are responsible for the majority of slaves brought from Africa, Africans themselves were not strangers to systematic slavery. The slavery Africans were introduced to in America was different than the servitude they experienced in their homeland. U.S. slavery was classified as chattel slavery while African slavery could have been equated to European serfdom. Chattel slaves were considered to be property because they and their children lacked human rights and the opportunity to be freed. African slaves were often prisoners of war, seeking salvation from famine, or working off a debt (Lovejoy, 2000). The increased European need for slaves caused warfare in Africa, because slavery was no longer a form of payment or of punishment, but instead was a means of power and control. The trader

with the most slaves to sell to Europeans became the wealthiest and therefore the most powerful. As a result, raids and kidnapping increased to satisfy the European need for laborers (Lovejoy, 2000).

European Arrival in Africa

Europeans bought most of their slaves from modern day West Africa, one of its five regions (see Appendix A for regional Africa map). For the purposes of this paper, the researcher will focus on West Africa for its relation to the slave trade (see Appendix B for a map of West African countries). Although this section will analyze precolonial Africa, the researcher will refer to it in postcolonial terms for clarity. West Africa's original major trade commodities were salt and gold; eventually these transitioned to ivory, metal goods, and slaves. The European need for commodities disrupted the Trans-Saharan trade which took place between Northern and Western Africa. The Sahara desert, specifically in Northern Africa, once the bottom of an ocean, was rich in salt deposits. West Africa, on the other hand, was rich in gold. In the hot climate of Africa, hunters and gatherers needed an abundance of salt in order to preserve game, and traders needed gold supplies for trading purposes. Meats could be brined, or soaked in salt water, buried in salt, or given a salt rub (Durham, 2001). Africa's abundance of salt and gold brought Europeans to the West African coast. Eventually, Europeans also began to look to West Africa to fulfill their need for laborers.

Transatlantic Slave Trade

The Transatlantic Slave trade was the middle leg, otherwise known as the Middle Passage, of the Triangular Trade. The slave trade took place from 1518 until the mid-19th century (Middle Passage, 2016). Textiles, arms, and other manufactured goods traveled from Europe to Africa, while cotton, tobacco, and sugar traveled from the Americas to Europe (see Appendix C

for a depiction of the Triangular Trade). At auctions, slaves were examined: “lips pulled back and mouth probed for missing teeth and sores, eyes examined for ophthalmia and blindness, muscles palpated, genitals fingered” in order to determine age and health (Harris, 2011, p. 29). Although slave traders only selected prime candidates for purchase based on slaves’ health and ability, centuries of adaptations made through slavery led to a decline in health of African Americans.

Slave ship conditions. During the Transatlantic Slave Trade, it was essential to utilize the space available on cargo ships. In addition to the other cargo, traders also had to prepare rations for crew members and slaves aboard the ship. Slave ships required more food than other vessels in order to provide for crew members, usually numbering around thirty in addition to 300 or so enslaved Africans (Harris, 2011; see Appendix C for image depicting boat capacity). In order to utilize the spaces on the ships, slaves were packed into unimaginably inhumane spaces. Individual space allotment was no more than 6 feet long, 16 inches wide, and perhaps 3 feet in height (Middle Passage, 2016). Imagine the experience of a full size adult lying in a casket (see Appendix D for reference).

Below deck, slaves were “immediately fastened together...by handcuffs on their wrists and irons riveted on their legs. [They were often] stowed so close as to admit no other position than lying on their sides” observed Alexander Falconbridge, a ship doctor of the 18th century (Harris, 2011, p. 29). The holds in which slaves were kept were horrific. Buckets served as latrines, and individuals who were too far from the buckets often had to relieve themselves on themselves and their neighbors. Falconbridge reports decks covered in blood, a sight he deemed “not in the power of the human imagination to picture a situation more dreadful or disgusting.” (Harris, 2011, p. 29). Once land was spotted and ships made port in the colonies, slaves’ rations

improved in an effort to bulk them up and produce the appearance of good, strong health. They were often shaved, bathed, and coated in oils to disguise physical ailments (Harris, 2011).

Slaves often came from different regions, each with different staple starches. In order for their newly purchased slaves to survive the journey, merchants needed to feed slaves a diet that was not only inexpensive but they would willingly eat. Traders studied dietary habits of African cultures and used this knowledge to provision ships (Harris, 2011). Tales were told of enslaved Africans bringing seeds stowed in their hair and clothing to transplant them in the New World. However creative, the truth of the matter is much bleaker: the provisions brought aboard slave ships is a better way to explain the migration of crops from Africa to the New World (Harris, 2011). Three basic food crops were boarded in order to provision slaves: millet or sorghum, fonio, and yams. In addition to these staples, okra, collard greens, oranges, bananas, watermelon, black-eyed peas, peanuts, and a slew of other crops were brought on the journey as well, eventually dispersing themselves across America (Harris, 2011). Perhaps more important than slaves' contribution to new crops was their knowledge of food preparation techniques and creativity allowing them to blaze a new path of cuisine in North America.

African Starches

Historically, African's embrace a number of starchy staples. These include sorghum, millet, teff, cassava, and yams. The majority of African cuisines have a starch base because they offer lots of calories. Starches are more filling, as they deceive the body into feeling fuller (McCann, 2009). As a result, starches were a common provision aboard slave ships. Fernández-Armesto states, "Starch is the source of energy which has supplied most people for recorded history, but it is inefficient until it is cooked. Heat disintegrates it, releasing sugar which all starch contains" (McCann, 2009, p. 32). Because it is filling and high in energy, once cooked,

starches comprised the bulk of any given African meal.

Slaves brought to the colonies were usually originally from West Africa, Sudan to Cameroon (Harris, 2011; see Appendix B for map of West African countries). Based on their grain preferences, Jessica Harris (2011) marks three specific areas of West Africa from which slaves were brought. From Sudan to East Senegal, Africans culturally preferred sorghum and millet (Harris, 2011; see Appendix B for map). The Niger delta region, including Senegal and the Republic of Guinea, depended on rice and different strands of fonio (Harris, 2011; see Appendix B for map). From Cote d'Ivoire to Cameroon, natives preferred yams (Harris, 2011; see Appendix B for map). Because starches do not offer much in the way of flavor, the varied preferences are based more on texture than on its taste, allowing them to centralize traditional dishes around a specified starch (McCann, 2009).

Millet and sorghum. In early Sudan and Senegal, millet and sorghum made the transition to domestication at the hands of Africans who would plant the most fruitful grain seeds in the hopes of continuing the growth of plants best suited to their needs and ecologies (McCann, 2009). Millet and sorghum were especially important in ecological areas of the world where rice and wheat would not grow. Their domestication in Africa gave them unique qualities of drought resistance and storability. High in B vitamins, sorghum contains 12% protein, 4% fat, and 4% minerals (McCann, 2009). This combination of qualities is advantageous in the hot climate of Africa and for the long journey of slave ships. In a typical African meal, millet and sorghum grains served as the base of a porridge served covered in a meat stew, vegetable stew, or sauce. Food historians predict that in traditionally poor societies, like that in West Africa, food is comprised mainly of starch and starchy bases are made more palatable by spicy sauces and other ingredients (Thorn, 2006).

Fonio. The Niger Delta region, specifically Senegal and Republic of Guinea, took a liking to fonio, a millet like cereal. The native farmers prefer fonio because of the crop's short growing season and adaptability to harsh conditions. The Dongons of Mali, an ancient people dating back to the 14th century, believed the entire universe emerged from a fonio seed—the smallest object known to them (Cruz, 2004). Fonio's small size makes them especially nutritious because the entire grain can be consumed, unlike wheat (McCann, 2009). The grain is high in amino acids and is easy to digest, but it unfortunately has a protein content marginally lower than other cereals (Cruz, 2004). Additionally, the “small space between grains allows little oxygen for insect, pests, and mold to survive and propagate” (McCann, 2009, p. 35). This allows fonio to be stored for longer periods of time. The increased storability of the grain was an advantageous attribute on slave ships because it allowed provisions to be kept for the duration of the journey.

Yams. West Africans living Cote d'Ivoire to Cameroon preferred yams. Because of the Columbian Exchange, many Asian varieties of yams made their way into Africa. The two native and most popular strains were *Dioscorea cayenensis* and *Dioscorea rotundata* (Bower, 2007). The forest clearings of West Africa provided the prime setting for the African root crop (McCann, 2009). African yam strains can be a whopping 30 to 100 pounds or the small size of New World sweet potatoes and contain up to 40% starch (McCann, 2009). The yam could be prepared in a number of ways. These included boiling, roasting, and pounding in addition to other methods. Diverse preparation methods were beneficial on slave ships because it permitted simple preparation methods.

Cooking Techniques and Other Crops

Although very filling and a huge component of African cuisines, starches do not offer much in the way of flavor. As a result, West Africans are adamant about spicing their food.

Almost every African dish is going to have at least some chili, like capsicum pepper, malagueta pepper, or grains of paradise in order to improve the taste of bland starches (Bower, 2007). The capsicum pepper can be identified by many different names, but each of the different varieties of capsicum contain capsaicin, “a lipophilic chemical that causes a strong burning sensation to the mouth of the eater” (McCann, 2009, p. 59). In addition to the added flavor, capsicum has shown to extend the shelf life of foods, a property very useful in precolonial Africa (McCann, 2009).

Although slave owners were responsible for the relocation of crops through boat provisions, the slaves aboard those ships brought something almost more valuable: knowledge. The knowledge of West African food preparation, recipes, and crops brought by slaves are each cultural traditions that have immensely affected food practices in the United States, particularly in the South. Other crops made the journey from Africa to America alongside slaves, such as black eyed peas, okra, watermelon, and peanuts. These crops, and more importantly the knowledge of their preparation, was imperative to make necessary adaptations for the conditions imposed upon them during slavery. Bower (2007) claims that African Americans have “miraculously managed to hold on to certain traditions from their West African origins yet have adapted and evolved various customs” (p. 8). Despite egregious oppression, slaves were able to utilize the knowledge brought from their homeland to adapt their food customs to fit their new surroundings in America.

Slavery

Slave Classification and Conditions

Once introduced into the Americas, slaves were immediately forced to adjust to a new lifestyle of bondage where they endured “an unrelenting round of chores and duties” (Harris, 2011, p. 97). Typically, slaves were broken into two categories: The Big House and field hands

(Donald, 2001). Big House slaves were tasked with maintaining the master's home and caring for the family. Because of their close proximity to the family, house slaves often were given better food, clothing, and privileges (Harris, 2011). Where house slaves appeared to live in better conditions and under constant scrutiny, field slaves faced the opposite: poor living conditions and limited surveillance. Field hands did the laborious work of the plantation with increased physical risk (Harris, 2011). In addition to the physical toil of farming, slaves faced physical beatings at the hands of slave masters. Field slaves preferred the "autonomy of gang labor on plantations to the enforced individual contact with the Whites" (Donald, 2001, p. 63). The communal aspect field hands were able to foster was often more favorable than the comfort of the Big House. Although Big House slaves lived under the unfavorable preying eye of the White man, Big House cooks were able to pave the way for creativity in food preparation.

Foraging Soul Food

Plantations typically employed one of two distribution styles: slaves being served from a centralized kitchen or by rationing. The most common of the two forms was rationing because it allowed slaves to prepare food for themselves (Harris, 2011). Typically, slaves were given their rations on Saturday nights, paving the way for the traditional 'Sunday dinner' common within the African American community (Bower, 2007). In addition to other components, rations often included some fatty, salted meat and a peck of corn; additionally, these rations could be supplemented by their own hunting and gardens (Bower, 2007). It was here, in scarce food rations and in Big House kitchens that slaves began to influence Southern cooking pathways. John Edgerton states, "The kitchen was one of the few places where [slave cooks'] imagination and skill could have free reign and full expression" (Bower, 2007, p. 50). With limited cooking supplies, slaves were forced to create palatable meals from undesirable ingredients. The fusion of

Old and New World crops and the influence of European, Native American, and African traditions provided the foundation for the cultural creation of the cuisine we now know as soul food. Big House chefs incorporated these cooking styles into the southern palate, allowing it to be preserved far past slavery's ending. For the purpose of this essay, the researcher will pinpoint specific attributes of soul food that have, through slavery, been adapted from a West African cuisine. It is in these adaptations, is where we can begin to see the decline in African American health. The poor access to healthy foods that fostered sweet potato casserole, grits, and hot water cornbread, caused slaves to make unhealthy renditions of West African dishes.

Adaptations made through slavery. *Yam/Sweet potato.* The yam, used in religious festivals, politics, and bartering, make up a large portion of West Africans' diets. Even today, the African yam is often confused with the New World sweet potato. Despite some physical similarities, the two are actually genetically different (Bower, 2007). African yams have a bark-like skin and are much drier than the sweet potato, which is often soft and sweet. Because slaves no longer had access to the African yam, the physical and textural similarities of the sweet potato allowed enslaved Africans to easily adopt their food preparation techniques to fit the New World tuber. Yams can be prepared multiple ways, but the most common method is by pounding. The pounding of yams, combined with water and other spices for seasoning, into a gelatinous consistency creates fufu (McCann, 2009). By keeping additives at a minimum, the dish capitalizes on and maintains the nutritional value of the yam.

Fufu can be compared to the soul food classic sweet potato casserole. Sweet potato casserole is typically prepared by beating sweet potatoes with a mixer into a thick consistency. Although sweet potatoes are high in vitamins and fiber, are fat free, and have fewer calories than white potatoes, they are often prepared in such a way that these benefits are outweighed (United

States Department of Agriculture, 2016). Chalk full of butter and sugar and topped with marshmallows, in this dish, sweet potatoes no longer offer the same nutritional value of the African yam. Sweet potato casserole is an example of an adaptation made during slavery that increased the amount of sugar intake of a previously nutritious dish. The increased sugar intake can lead to chronic diseases like diabetes (Hampton et al., 2010).

Millet and sorghum/hot water cornbread. Enslaved Africans would use their cornmeal rations to make ashcakes, also called hoecakes. Ashcakes were made in the ashes next to a burning fire, and hoecakes were made atop a hoe placed over to a burning fire (Bower, 2007). Neither millet nor sorghum contain gluten; therefore, bread made from these grains are unleavened and flat (McCann, 2009). The flat breads made from millet and sorghum are a direct ancestor to the hoe and ashcakes that birthed the soul food classic hot water cornbread. These breads were created as a method to scoop up foods, known in soul food as “sopping up”. Slave owners did not typically allow their slaves the use of cooking and eating utensils for personal use because they feared that in the case of a slave revolt the materials could be used as weapons (Bower, 2007). As a result, slaves were forced to improvise. Sopping up is the practice of soaking up or scooping the residue of a meal. This is typically done with cornbread or another bread source (Brower, 2007). While sorghum and corn grain both have their nutritional benefits, hot water cornbread is typically fried in a stove top skillet with butter and salt, reducing its nutritional value by adding a considerable amount of salt and fat. Increased amount of fat and sodium can translate into health issues, like cardio vascular disease, if consumed in excess (Hampton et al., 2010).

Porridge/grits. Grits, another soul food classic, also finds its origin in African ancestry. Grits are made from corn ground into a meal and then boiled. Its African ancestor would be the

porridge made from sorghum or millet. In the absence of these two African grains, slaves were forced to settle for corn meal. Millet and sorghum are high in fiber and minerals, and although cornmeal also has some nutritional value, the additives that distinguish it as soul food, outshine the nutritional benefits. Made with similar techniques, grits became the southern equivalent, but where the two vary lies in the preparation method. In its simplest form grits are typically savory or sweet. Savory grits are loaded with salt, pepper, cheese, and sometimes meat, like shrimp or pork. These ingredients add a considerable amount of sodium and fat. Sweet grits are served full of sugar and butter, increasing sugar and fat intake significantly. These additions notably decrease the nutritional value of the soul food rendition of the West African staple, and ultimately causes health issues for the African American community.

Bower (2007) said “food heritage is one of the few elements that can still bring black people in the United States together, no matter what their line of work, level of education, or place of birth” (p. 8). This goes to say that food customs are the most enduring aspect of the African American culture. Although African Americans only carry a few cultural similarities to their African ancestors, a large quantity can still be found in their food practices. Soul food carries the legacy of Black oppression in the United States, and its lasting influence is due to the persevering quality of African Americans. Through slavery and segregation, African Americans were allowed “relative freedom from outside influences”, allowing them to “preserve much of their own heritage and to evolve a culinary style of their own” (Bower, 2007, p. 55). Despite egregious oppression, African Americans have been able to preserve aspects of their African heritage through food customs. Slavery was officially abolished in 1865; however, its by-product, soul food, continues to carry its legacy.

The Aftermath of Slavery

A major turning point of the Civil War occurred on January 1, 1863 when the Emancipation Proclamation was passed. It is important to note that the proclamation only affected slaves in the *rebellious* states, while slaves in loyal border states remained untouched. Slavery was officially abolished in 1865 with the Thirteenth Amendment. Despite their newfound freedom, African Americans continued to face injustice at the hands of racism from the United States government and society at large. Racism, in addition to a food culture high in fat, has caused African Americans to be directly influenced by an increased rate of health disparities.

Segregation and History of Racism

In slavery's absence, the lines of separation and social hierarchy were blurred. As a result, Whites feared the emergence of a "New Negro"—one "born in freedom, undisciplined by slavery, and unschooled in racial etiquette" (Litwack, 2004, p. 7). In order to regain control over Black people, from 1880 until the 1960s, Jim Crow laws were the governing law in the segregated south (Alvarez, Liang, & Neville, 2016). The term Jim Crow came to represent an institutionalized system enacted to preserve White supremacy. In the aftermath of slavery, African Americans diligently tried to create a life for themselves in society, but in order to do so they would require housing, land, education, and employment. By institutionalizing racism, Whites were able to use the law to enforce segregation as a means to reestablish black inferiority. Their inferior status allowed society to restrict their access to materials that would benefit the health of African Americans, like healthy food sources and adequate living conditions.

Current Condition of African Americans

Demographics

In 2015, African Americans made up about 13% of the total United States population. They make up the largest minority group second to only the Latino population (U.S. Department of Health and Human Services, 2017). Fifty-eight percent of Blacks live in the south, along with 35% of the White population. Many chronic issues and diseases like poverty, cardiovascular disease, hypertension, diabetes, obesity, and a lack of education, run rampant through the United States. Certain populations, specifically African Americans, are affected by these conditions at a greater rate because of the lasting effect of institutionalized racism (U.S. Department of Health and Human Services, 2017).

For example, consider economic status. In 2015 the median income was \$36,515 in non-Hispanic Black homes in comparison to \$61,394 in non-Hispanic White homes (U.S. Department of Health and Human Services, 2017). This, in addition to an 11.4% unemployment rate, twice that of White Americans, has overall led to 25.4% of Blacks living at the poverty line (U.S. Department of Health and Human Services, 2017). Poverty has the potential to play a role in both economics and overall health, as it limits an individual's economic freedom.

Segregation in Education

Denying blacks access to a proper education, allowed Whites to add a layer to their perceived superiority and enforce ignorance in the black community. In 1896, the Supreme Court ruling in *Plessy vs. Ferguson* upheld the constitutionality of segregation. By way of this verdict, the principle of 'separate but equal' was established and institutionalized (Horton & Moresi, 2001). This policy was enforced in all domains where Blacks and Whites came in contact like restaurants, public transportation, entrances, and schools. Psychologists and sociologists alike

have confirmed that separate schools inherently fostered an inferiority complex and produce lower quality materials and resources for black students (Alvarez et al., 2016).

Poverty and education battle each other in a vicious cycle: Poverty limits access to education, and a lack of education breeds poverty. Lack of education in the black community inadvertently propagates poverty which further places African Americans at a health disadvantage. Researchers (1999) suggest that education level builds a sense of personal control (Ross & Mirowsky). Personal control is defined as the belief that outcomes are dependent upon one's actions. Persons with a high sense of personal control initiate preventative health behaviors. For example, people who obtain higher levels of education are more likely to have a higher sense of personal control, which ultimately leads to positive health behaviors like exercising and not smoking. They also note that education itself is an "inherently worthless credential" (Ross & Mirowsky, 1999, p. 447). Its value lies in its requirement by employers. Employers use education to screen applicants. Therefore, those with higher education receive better jobs with higher salaries. Because of the lack of education within the black community, they are unable to obtain adequate jobs, ultimately affecting their income and therefore their ability to purchase food.

Even sixty years after *Brown v Board of Education*, which declared that "separate educational facilities are inherently unequal", researchers are finding that schools are essentially re-segregating at rates that are similar to or exceed the *Brown* decision (Alvarez et al., p. 190). Although segregation and discrimination are more inconspicuous today, there are institutionalized systems, like tracking and school choice, that reinforce de facto segregation and hinder African Americans.

Tracking. Tracking is a method by which schools are able to segregate their students by grouping them according to their ability. Some scholars argue that tracking is an effective method, as it allows students the opportunity to learn at a pace more suited to their ability; other scholars would say that it “creates a restricted learning experience for students who are not labeled as gifted” (Alvarez et al., p. 194). These special education classes are disproportionately populated by students of color, particularly young black men. Special education classes are meant to cater to students with learning disabilities, language barriers, and behavioral issues. Although studies show that regardless of gender, African American students behave no worse than their racial counterparts, African American males in particular are more likely to be placed in special education classes for behavioral issues. They are seen as less innocent, afforded less warnings, and punished more harshly (U.S. Department of Justice, 2014).

Students in lower level classes aren't exposed to as challenging a curriculum and are met with less experienced teachers and lower expectations (Alvarez et al., p.194). Researchers (2013) found that high achievement is normalized when excelling students are placed in the classroom with low achieving students. Their findings suggest that a diverse learning environment will in fact benefit low achieving students in the presence of students above their learning level (Ayscue, Flaxman, Kuczers, & Siegel-Hawley, 2013). White students show an over representation in honors and advance placement classes, while black students are disproportionately represented in special education classes, ultimately placing African Americans at an employment, and therefore a monetary disadvantage (Alvarez et al., 2016). The combination of these factors effects the health of the African American community at large by fostering a lack of ability to afford healthier foods, which are often more expensive.

School choice. School choice is the practice of allowing citizens to choose the school they attend. School choice can be beneficial in that students can choose to attend a school that is academically better, but a lack of transportation could force some students to attend a nearby school of lower quality. Although the freedom to pick a school seems like a problem solver, it is only so for those with the resources to carry out that decision. A family's location, neighborhood safety, time, income, and access to transportation all affect school choice. For families who rely on public transportation choosing a preferable school may not be an option. Because African Americans are disproportionately affected by poverty, they are also disproportionately affected by tactics like school choice as they do not possess the resources of their White counterparts (Alvarez et al., 2016).

The concentrated number of African Americans in poor performing, low budget schools reinforces a lack of education in the black community. The introduction of school choice laws in Denver resulted in a decrease from 40% to 10% of White students enrolled in low performing schools and an increase from 20% to 80% for African American students (Aske, Corman, & Marston, 2011). The vast fluctuation in racial attendance of White students could be attributed to a greater mobility of White Americans. According to Orfield and Lee (2005), 60% of African American and Latino students, compared to 18% of White students, attend schools that are improperly funded and do not have the resources to provide a quality education. Without proper education, African Americans are at a disadvantage in the workforce. Lack of employment places them at a monetary disadvantage, not allowing them the financial freedom to purchase healthy food like fruits, vegetables, and lean meat.

Housing Segregation

In addition to the public sphere, including transportation and education, Whites were also able to impose their dominance over blacks through housing. Fueled by Jim Crow, racially restrictive covenants gained popularity. These covenants were contractual agreements imposed on the deeds of a property that prohibited the sale, lease, or occupation to a designated group of people (Jones-Correa, 2000). Usually signed by property owners in majority White areas, they allowed Whites the authority to refuse the sale of property to blacks. In 1926, the Supreme Court decision in *Corrigan v. Buckley* validated these covenants as lawful. This court decision encouraged widespread and institutionalized housing segregation. Although the Fair Housing Act of 1965 prohibited discrimination of the sale, rental, or financing of dwellings based on a number of factors, including race, the African American concentrated housing settlements created out of necessity during this era can still be found today. Finally, in 1964, the Civil Rights Act outlawed discrimination based on sex, religion, national origin, and race. Although the doctrine ended candid segregation in places like buses and drinking fountains, ambiguous segregation in places like schools, employment, and housing still continue to plague communities of color today and inadvertently place them at a health disadvantage.

The concentrated areas of Black citizens, found especially in urban areas, are detrimental to African Americans' access to resources. Even with the signing of the Civil Rights Act, people of color, specifically African Americans, continue to live in economically impoverished and hypersegregated communities (Alvarez et al., 2016). The origins of these failing communities can be found in the racial covenants discussed previously. Although some of these tactics are no longer as blatant, housing discrimination still takes place in the US. For example, in a study done by the U.S. Department of Housing and Urban Development (HUD), it was found that

homebuyers of color were offered less assistance for financing and were steered towards less affluent neighborhoods with high numbers of minority residents (Pager & Shepherd, 2008).

Practices like this encourage segregated neighborhoods by reducing African American's presence outside of established Black communities. The communities they are forced to live in typically offer little in the way of access to healthy foods.

The vast differences between White and Black neighborhoods can be found in St. Louis, Missouri's "Delmar Divide". Two communities, separated by only one street show astounding differences in income and property value. To the south of the street, 70% of residents are European Americans (Goodman & Gilbert, 2013). They have a median annual income of \$47,000, home values an average \$310,000, and approximately 70% of the residents have completed college (Goodman & Gilbert, 2013). To the north of Delmar Boulevard, 99% of the residents are African American (Goodman & Gilbert, 2013). They maintain an average \$22,000 annual income, homes average \$78,000 in value, and approximately 5% of residents have completed college (Goodman & Gilbert, 2013). This glaring contrast is a testament to the disposition African American's face in their communities. Within their communities they face low income, poor property value, and racial segregation.

Access, availability, and quality of resources. Because of practices like racial covenants and reduced financial support, African Americans are forced to continue to populate segregated areas. Segregated communities play a considerably large role in the health of African Americans. Studies have shown that within low income communities one will find fewer grocery stores with fruits and vegetables, more liquor stores per capita, and an over representation of fast food restaurants (Alvarez et al., 2016). In addition, compared to 5% of White Americans, an

average of 24% of Black Americans live in neighborhoods with low availability to healthy food (Hampton et al., 2010).

The availability of chain supermarkets in African American neighborhoods is only 52% of that in White neighborhoods (Powell, Slater, Mirtcheva, Bao, & Chaloupka, 2007). In areas where the majority of residents rely on public transportation, access to grocery stores outside of their community is nearly impossible. As a result, these residents must utilize the fast food restaurants and gas stations in their community to purchase food for their families. Because African Americans make up a large population of these low income areas, the previously discussed factors, like education, which fosters unemployment, and housing, inherently increase the susceptibility of African Americans for chronic disease as a result of poor food intake (Alvarez et al., 2016).

Health State of African Americans

It is impossible to separate the health of African Americans from racism because institutionalized systems, like that of Jim Crow, continue to affect many different factors, including economics, employment, and housing. Each of these factors have a hand in determining access to resources. The combination of food preparation culture and low access to resources like health care, grocery stores, and exercise facilities, places African Americans in a poor health state, resulting in chronic disease.

Typically, chronic diseases impact African Americans at a higher rate. For example, African Americans face a higher prevalence of obesity, cancer, stroke, heart disease, high blood pressure, and diabetes in comparison to their White counterparts (Centers for Disease Control and Prevention, 2017). As a result of poor education, less employment opportunities, low income, segregated housing, and food culture, African Americans have become

disproportionately affected by chronic diseases. A number of these diseases, specifically obesity, diabetes, and cardiovascular disease, could be positively affected by an improved diet.

Obesity

Definition. Obesity can be caused by biological, environmental, historical, cultural, and economic factors. In the simplest terms, obesity is the result of an energy imbalance that occurs from an above normal energy intake over energy output (Cameron & Demerath, 2002). There are two major types of obesity: pear shaped and apple shaped, which correspond to two typical obesity body types (Lovejoy, de la Bretonne, Lemperer, & Tulley, 1996). Pear shaped obesity is defined by predominantly subcutaneous fat, while apple shaped obesity is characterized by excess visceral fat and increased abdominal girth. Hip, thigh, and buttock fat is most commonly found in African American women, and therefore they usually are classified in the pear shaped category (Lovejoy, de la Bretonne, Lemperer, & Tulley, 1996). Weight gain, along with development of visceral adiposity, has a strong correlation to hypertension (Lovejoy, de la Bretonne, Lemperer, & Tulley, 1996). Obesity is a worldwide epidemic that affects all genders, races, and ages, but African American women and girls are disproportionately affected. African American women (66%) are 1.4 times more likely to be obese than white women (47%). They also have a twofold greater risk of being diagnosed with diabetes and hypertension at earlier ages than their white equals (Abraham, Kazman, Zeno, & Deuster, 2013). African American adults are 40% more likely to have hypertension than their White counterparts (U.S. Department of Health and Human Services, 2016). According to the Office of Minority Health, 39.5% of the African American population is obese compared to only 28.5% of White Americans (2017).

Risk factors. An unhealthy diet in addition to a lack of physical activity are two major risk factors for obesity. Physical activity can reduce weight, but without the combination of other

techniques, like a healthy diet, it is fairly ineffective (Shaw, Gennat, O'Rourke, Del Mar, 2006). Although diet and exercise combined is the most effective method of weight loss, African American women have a low perceived value of weight loss (Hampton et al., 2010). Young Black women from low economic backgrounds are at the greatest risk of obesity (Chandler-Laney et al., 2009). Studies have shown that African American women of lower socioeconomic status view larger body sizes as favorable and more attractive, however this finding does not hold true in women of higher economic classes or in women with college educations (Chandler-Laney et al., 2009). In these low income communities, structural aspects are also a contributing factor of obesity (McAlexander, Banda, McAlexander, & Lee, 2009). African Americans often live in neighborhoods with low sidewalk connectivity, lack of exercise facilities, and lack of green spaces, and limited access to healthy food options (McAlexander et al., 2009).

Diabetes

Definition. There are two primary types of diabetes: Type 1 and Type 2. Type 1 diabetes mellitus (T1DM) is characterized by beta cells in the pancreas that do not produce insulin. African Americans have the lowest incidence for this type of diabetes, but they have twice the risk of type 2 diabetes mellitus (T2DM). T2DM, often termed “sugar”, has disproportionately affected the African American community for over half a century. African Americans are 80% more likely to be diagnosed with diabetes (U.S. Department of Health and Human Services, 2016). Almost 13% of the African American population suffer from diabetes compared to 7.4% of the White American population. In addition, Black children ages 10-19, face a diabetes incidence of 32.6% compared to White Americans at 3.9% (Centers for Disease Control and Prevention, 2018). African Americans are up to 2.3 times more likely to be diagnosed with T2DM than White Americans (Marshall, 2005). These statistics suggest that in addition to

obesity, there a number of other factors acting upon African Americans that increase their prevalence of the disease so drastically. Diabetes is the seventh leading cause of death of the general population, but among African Americans it is the fourth leading cause of death (Hampton et al., 2010). The American Diabetes Association estimates that 3.7 million African Americans have diabetes and that they have a 51% higher prevalence of T2DM than do their White equals (American Diabetes Association, 2000). Across the board, African Americans continue to tower above Whites in death rates by diabetes.

Food choice barriers. African American families experience poverty at a disproportionate rate. Twenty percent of Black families live at the poverty level compared to only 8% of Whites (U.S. Department of Health and Human Services, 2006). Meals of poor African American families typically tend to be high in fat, salt, and carbohydrates (Baptiste-Roberts et al., 2007). These tendencies align with cultural food preferences like soul food, which are generally passed from generation to generation in recipes and preparation techniques. In addition, lack of food access and increased prevalence for poverty limits the ability to purchase foods like fruits, vegetables, lean meat, and fish, which are more expensive than fatty, processed foods. In fact, one in five Americans consume the recommended servings of fruits and vegetables a day. African Americans consume lower amounts of produce and dietary fiber and more dietary fat than their White counterparts (Horowitz, Colson, Herbert, & Lancaster, 2004). Through restricted access to food, African Americans face a higher prevalence of obesity, and because obesity is a major factor of diabetes, they are inadvertently more prone for it as well.

Cardiovascular Disease

Definition. Cardiovascular disease (CVD) is the leading cause of death in the United States across all genders and races (Hampton et al., 2010). Of all ethnic groups, African

Americans have the highest coronary heart disease (CHD) death rates, CVD's biggest contributor (U.S. Department of Health and Human Services, 2016). African Americans are also more likely to have heart attacks at earlier ages than their White counterparts (Hampton et al., 2010). Although Blacks have experienced a decrease in mortality from CVD, their average life expectancy remains shorter than Caucasians, with leading causes of death being heart disease, cancer, homicide, and stroke (Centers for Disease Control and Prevention, 2017). Specifically, Blacks ages 35-49 years and 18-34 years are five times and nine times, respectively, more likely to die from homicide as whites in the same age groups (Centers for Disease Control and Prevention, 2017). In addition, Overall, Black Americans are 30% more likely to die of heart disease than their White counterparts (U.S. Department of Health and Human Services, 2016). In general, African Americans are more likely to die at earlier ages from all causes, but in 2001, cardiovascular disease accounted for about 36.7% of the overall reduced life expectancy for African Americans (Centers for Disease Control and Prevention, 2017 & Centers for Disease Control and Prevention, 2001).

Risk factors. There are many risk factors for cardiovascular disease, but within the African American community, cigarette smoking, hypertension, and type two diabetes are the most prevalent. Among males, African Americans are more likely to smoke than their Caucasian counterparts (Hampton et al. 2010). Cigarette smoking is the leading contributing factor for death by CVD and cancer (Lloyd-Jones, Adams, Brown, Carnethon, Dai, De Simone et al., 2010). When considering CVD, the most important factor of cigarette smoking is the amount of current smoke intake. Upon cessation, CVD risks begin to drop to levels of a person who has never smoked within 3-5 years (Hampton et al., 2010).

High blood pressure is defined as systolic pressure equal to or greater than 140 millimeters of mercury or diastolic pressure equal to or higher than 90 millimeter of mercury (Lloyd-Jones et al., 2010). Body Mass Index (BMI) is strongly associated with CVD, and hypertension is also a risk factor for heart attack, and stroke. Thirty-three point five percent of Black people have been diagnosed with hypertension. This is the highest prevalence for this disease of any ethnic group (Peters, Aroian, & Flack, 2006). Blacks face earlier onset, higher prevalence, double the heart failure, and increased severity than any other racial group (Williams, 2001).

Diet Interventions

The Dietary Approaches to Stop Hypertension (DASH) diet was developed in order to lower blood pressure without medication (Kim & Andrade, 2016). Numerous studies have proven the diet to be effective in reducing risk for a number of diseases including kinds of cancer, heart disease, heart failure, and diabetes—all of which African Americans disproportionately suffer (Champagne, 2006). The Oldways African Heritage Diet Pyramid is comparable to the DASH program in a number of ways. The similarities between the programs will allow The Oldways diet plan to prove effective, but its differences will allow it to be more suited for the African American palate.

DASH Diet

The DASH diet is high in fruits and vegetables, low in fat, and includes nuts and assorted beans, protein, and heart healthy fats. It limits foods high in saturated sugar, fat, and sodium (Steinberg, Bennett, & Svetkey, 2017). The meal plans are designed to keep blood sugar at a relatively steady level. By avoiding the rise and fall of blood sugar levels, cravings are easier to control. In doing so, the diet plan reduces belly fat, the risk for diabetes, triglycerides, and low-

density lipoprotein (LDL's) (National Heart). The inaugural DASH study was a 4-site, randomized controlled feeding study. Researchers compared a typical US diet to DASH and produced reduction in both systolic and diastolic blood pressures of 5.5 and 3.0 milligrams of mercury (mmHg) respectively (Steinberg et al., 2017). Significant blood pressure changes were seen across racial and gender lines. Some of the most influential results were found in the African American population: systolic decreased 6.8 mm Hg and diastolic decreased 3.7 mm Hg (Steinberg et al., 2017). Since then, the diet plan has been incorporated into national blood pressure and dietary guidelines and been thoroughly researched. Its guidelines align with the recommendations of the Dietary Guidelines for Americans, the National Cholesterol Education Program's Step 2 Diet, and the National Cancer Institute, National Heart, Lung, and Blood Institute, The American Heart Association (Champagne, 2006).

Although it continues to produce positive results, on a national level, adherence is very poor (Steinberg et al., 2017). On an environmental level this is likely the result of the populations increased access to high calorie, nutrient poor foods such as fast food restaurants (Steinberg et al., 2017). Fruits, vegetables, and lean meats are more expensive, and for lower income populations, it is likely they cannot afford to purchase them or do not have access based on their poor food availability. Despite this challenge, research has shown DASH's capability to be adopted in low income populations (Steinberg et al., 2017). Aside from poor access to foods, African Americans may struggle to adhere to the DASH diet because of the recipes or foods within the diet plan. Although there are a wide range of food options, like "Asparagus and Polenta Pie", "Salmon and Edamame Cakes", and "Garbanzo Bean Curry with Potatoes", these meals may not appeal to the African American palette (Heller, 2018; See Appendix F for daily meal plans that follow the DASH diet). African Americans typically enjoy more soulful foods

like chicken or pork, greens and potatoes, and assorted spices. The DASH diet foods like “Cucumber Salad”, “Zucchini Lasagna”, and “Acapulco Tuna” may turn the African American community away (National Institutes of Health, 2006). The Oldways African Heritage Diet Pyramid has the potential to fill the void that the DASH diet doesn’t offer to African Americans for desirable foods.

Oldways African Heritage Diet Pyramid

The Oldways African Heritage Diet Pyramid includes many foods eaten in soul food and is composed of crops brought to the New World by Africans (Welcome to the African Heritage Diet, 2011). Its intention is to make healthy eating easier for African Americans by capitalizing on familiar foods and acting as a guide to the traditional healthy diet African ancestors (Welcome to the African Heritage Diet, 2011). Similar to the DASH program, it based on whole plant foods, healthy oils and fats, whole grains, assorted beans, and nuts. Where the DASH diet falls short on retention, the African Heritage Diet Pyramid could secure the interest of African Americans to improve their health status via diet alterations by capitalizing on familiar foods. Many of the soul food classics adapted from African crops and techniques, like sweet potatoes, grits, greens, flavoring, and community, are incorporated into the diet plan. At the time of the Transatlantic Slave Trade, African diets were low in meat and sugar, and included lots of leafy greens, tubers, and assorted sauces and spices. The Heritage Pyramid encourages the user to utilize these familiar foods but in a way that aligns to its healthy origins.

At the bottom of the African Heritage Diet Pyramid are greens (see Appendix G for food pyramid). Assorted leafy greens, like spinach, mustard, collard and turnip greens, are all big components in any African diet. In the African American community they are often boiled in water and seasoned heavily with assorted spices and ham hock. Ham hocks are 65% fat and 35%

protein. A whopping 26 grams of fat, 120 grams of cholesterol, and 100 grams of sodium make up a 4 ounce serving (Smoked, 2018). Increased cholesterol, fat, and sodium are risk factors for diseases like hypertension and CVD, all of which African Americans suffer from. Although leafy greens are packed with assorted vitamins, minerals, and potassium, preparing them with fatty foods like ham hocks is counterproductive and causes detrimental effects. The Oldways African Heritage Diet plan suggests cooking them with onion, peppers, and other assorted spices to lower the sodium, cholesterol and fat content (Welcome to the African Heritage Diet, 2011). Although the cooking methods may be different, Oldways' methods only require minor changes and bring African Americans closer to their healthy ancestral roots in the process.

The next level of the African Heritage Diet food pyramid includes tubers, beans, nuts, vegetables, fruits, and whole grains (see Appendix G for food pyramid). The recommendation is to base every meal off these foods (Welcome to the African Heritage Diet, 2011). As mentioned previously, sweet potatoes are a staple of the soul food menu. It is packed with potassium, vitamins, minerals, and amino acids, but preparation methods often add lots of sugar and fat. Whole grains also play a major factor in African heritages— so much so that different regions pride themselves on specific preferences, like millet, sorghum, fonio, and yams. These crops are not regularly cultivated in the U.S., but there are other viable options that can serve as the base of meals. The Oldways guide suggests using rice, beans, and peas, which are a great source of fiber, to make up the bulk of a meal (Welcome to the African Heritage Diet, 2011). The suggested soups and stews made from the vegetables and greens from the previous level can be poured over mashed tubers or grains to align with traditional meals made in Africa. This food preparation technique can resemble the soul food classic of “sopping up” food. By using similar methods and

foods, the African Heritage Diet Pyramid is more likely to keep African Americans on track for a healthy diet.

At the top of the African Heritage Diet food pyramid are sweets with the suggestion that they only be eaten occasionally (see Appendix G for food pyramid). Typical soul food desserts include sweet potato pie, blackberry or peach cobbler, pecan pie, and banana pudding. An interesting theme of these deserts are fruit. In order to utilize these fruits, they are often brought to a boil with butter, sugar, and assorted spices until reduced. Poured into a pie crust, topped with more sugar and cinnamon, and baked, this delectable dish packs a calorie, sugar, and fat punch. The fruits and nuts used in these deserts are all great sources of energy and nutrition, but the preparation method are again a down fall. Noticing the theme of fruit in deserts, the guide suggests capitalizing on fruit as dessert but in a healthier manner. They suggest eating fresh fruit topped with a low calorie whipped topping, nuts, or coconut to satisfy sweet cravings (Welcome to the African Heritage Diet, 2011). Because fruit is already a component in dessert recipes, a little discipline will allow African Americans to achieve a better health status by adjusting their preparation methods to resemble their African roots.

A unique component of the African Heritage Diet food pyramid is its emphasis on physical activity and enjoying food with others. Food as community is a concept often ingrained in many food cultures. During slavery, family units were ripped apart, causing enslaved Africans to form familial bonds with those around them despite the fact they may not be biologically related (Schwartz, 2001). Because most slaves spent the duration of their days in fields working, meals were often made in bulk, in cauldrons or troughs, to serve mass numbers of people. These collective eating times created the communal aspect of soul food as it is known today. Parental eating styles are also an important factor of the family unit as children internalize the patterns of

their parents. Instilling healthy eating patterns within the family unit is a crucial component in mending the dietary downfalls of the African American community.

Conclusion

Culture is the byproduct of centuries of interaction between peoples resulting in the adoption and adaptation of practices and traditions from outside sources which are supplemented by heritage and tradition. The African American culture is one forged from West African heritage adapted through bondage in the United States. The biggest limitation I faced in my research was finding the sources to comprise the bulk of the information for the time period before the slave trade in Africa. Because Africa was not sectioned in the ways we know it today, trying to find sources on the area Africa before it was actually termed *West Africa*, a relatively new term, was difficult. Beginning with the adaptation of African food practices to fit slavery's conditions, slaves founded a new cuisine, soul food, and it lives on as a representation of their struggle even today.

These adaptations created food preparation styles significantly healthier than its West African foundations. Unhealthy cooking practices continued to flourish under the hands of Jim Crow. Motivated by race laws, African Americans were subject to discrimination and segregation, forcing them to congregate in areas of poor food availability. Although direct racism has been outlawed, African Americans continue to face institutionalized racism in education and housing. These combined factors, in addition to poor neighborhood infrastructure, have led to disproportionate disease rates within the African American community.

There are a plethora of ways to reduce risk factors, like physical activity and dietary intervention. Although not as well researched as the DASH diet, nutritional similarities have the potential to allow the Oldways African Heritage Diet Pyramid to greatly shift African American

dietary habits in a positive direction by utilizing foods that already comprise the bulk of their diets. The Oldways African Heritage food pyramid also presented its difficulties in research. The diet itself has not been researched as thoroughly as the DASH diet, and therefore finding reputable sources was a challenge. Although resources may be slim for the African American community, the African Heritage Diet Pyramid offers the knowledge to allow African Americans to utilize the resources available to make smarter health choices, adapt poor diet habits, and make minor diet alterations that could ultimately improve their overall health.

African Americans have suffered long enough at the hands of the United States, but with the help of the African Heritage Diet Pyramid and a little determination, they have the potential to take back control of their health by utilizing familiar foods combined with healthier preparation practices. By capitalizing on old methods, like communal eating, foods like leafy greens, and intentionally taking healthy strides to improve unhealthy recipes, African Americans can drastically improve their health by ensuring these healthy initiatives are passed from generation to generation through recipes and oral traditions.

Moving Forward and Integrating Knowledge

Moving forward, I would suggest researchers must keep in mind that each aspect of chronic disease is connected to another, and there is more to consider than merely family history and genetics when determining chronic disease. Researchers should take the time to explore the aspects of disease that may not seem directly related, like poverty, education, food culture, etc., in order to add depth and understanding. This paper should serve as an exploratory knowledge base to provide background information for researchers to conduct studies in the.

My suggested study would be a cross sectional survey to determine the association of specific aspects of an African American college student's life ages 18-24 that shape their cultural

food patterns. Surveys are relatively easy to administer and cost effective. The researcher will also be able to determine association, but not the causality of negative food culture. The sample of the study would consist of three women and three men that meet the age requirement and come from similar economic backgrounds of the same general area. For example, selecting all participants from the same area of metropolitan New York. Pulling participants from a similar population will act as a control mechanism. This will attempt to eliminate differences that may arise from socioeconomic status, education level, or physical surroundings. Socioeconomic status is a term typically used to describe a person's social standing as it relates to education, income, and occupation. Based on my research, it can be seen that each of these factors have the ability to shape circumstances. For example, this can be seen in the connections I discussed between poverty and education level and transportation availability and access to high performing schools.

In a one on one survey, the researcher will evaluate the social determinants of health within the college setting in order to evaluate the factors that most directly determine the participant's food culture and health. Social determinants of health are conditions within an individual's environment that affect health, quality of life, and a number of other factors. In my research, I have explored Neighborhood and Built Environment by addressing lack of exercise facilities, food availability, and access to transportation, and housing. I addressed Education and the institutionalized components that instill a lack of education with in the Black community and addressed Economic Stability through my discussion of poverty. In my proposed study, researchers will be able to address the social determinants of health as well. For example, Neighborhood and Build Environment would consider proximity to campus food resources, Education would consider relative difficulty of major classes, and Social and Community

Context may focus on campus involvement and commitments outside of academics. It may also be helpful for the researcher to have a knowledge of the participant's family medical history.

The researcher should also question the participants about the most effective ways to reach their population for intervention, for example in class or through social media, the benefits they would like to reap from improvements, like more energy or weight loss, and gauge their perceived threat of chronic disease, for example whether or not they understand their risk factors. This includes gatekeepers of the population, effective recruitment techniques, etc. Gatekeepers are persons within the community who carry influence, whether formally or informally, within that community. The "gates" they guard are both an entrance and a barrier—in other words, the endorsement of the gatekeeper allows access to the remainder of the community, and the rejection of the gatekeeper often means the community will do the same. This knowledge would allow future researchers to implement the best intervention modality, such as social marketing, that would be most influential for this population to voluntarily and effectively improve food culture. Based on the knowledge gathered in the survey, the researcher can implement a social marketing campaign based on the needs and motivators of the population to help them overcome the factors inhibiting their health via food choices in order to benefit themselves and the community as a whole. A study such as this would help determine what factors influence and affect food culture in everyday life, effective ways to initiate and carry out intervention, and gauge the knowledge of potential chronic disease for this population. Based on my own research, I am confident this study would present useful knowledge about how to impact this population.

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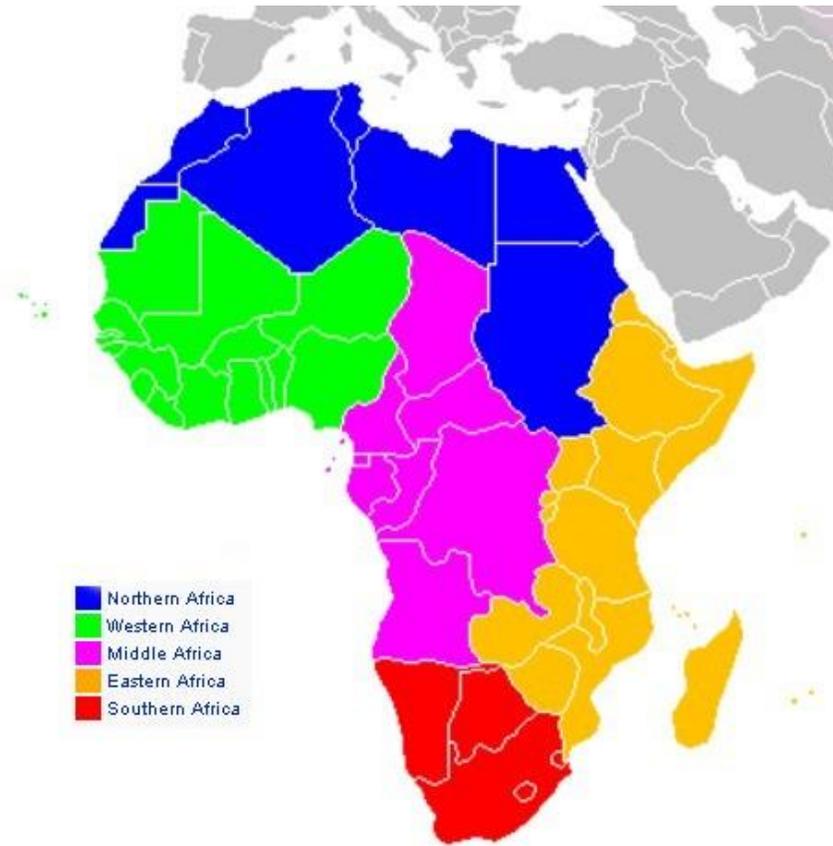
Appendix A: Africa Regions

Figure 1. Pictured are the five regions of Africa: Northern, Western, Middle, Eastern, Southern.

For the purposes of this essay, the researcher will specifically address Western Africa. “Adapted from Map Gallery of Africa” by R. Mikkleson and C. Wurtz, 2007. Retrieved from

<http://maps.unomaha.edu/peterson/funda/MapLinks/Africa-2/Africa2.htm>

Appendix B: Countries of West Africa



Figure 2. Pictured are the countries of West Africa. Adapted from “West Africa”, 2012, *World Regional Geography: People, Places, and Globalization* by the University of Minnesota Libraries Publishing. Retrieved from <http://open.lib.umn.edu/worldgeography/chapter/7-3-west-africa/>

Appendix C: Triangular Trade Routes

Figure 3. Pictured is the flow of goods through the Triangular Trade. Adapted from “The Transatlantic Slave Trade”, 2012, by Crispus Attucks Museum. Retrieved from <http://www.crispusattucksmuseum.org/the-transatlantic-slave-trade/>

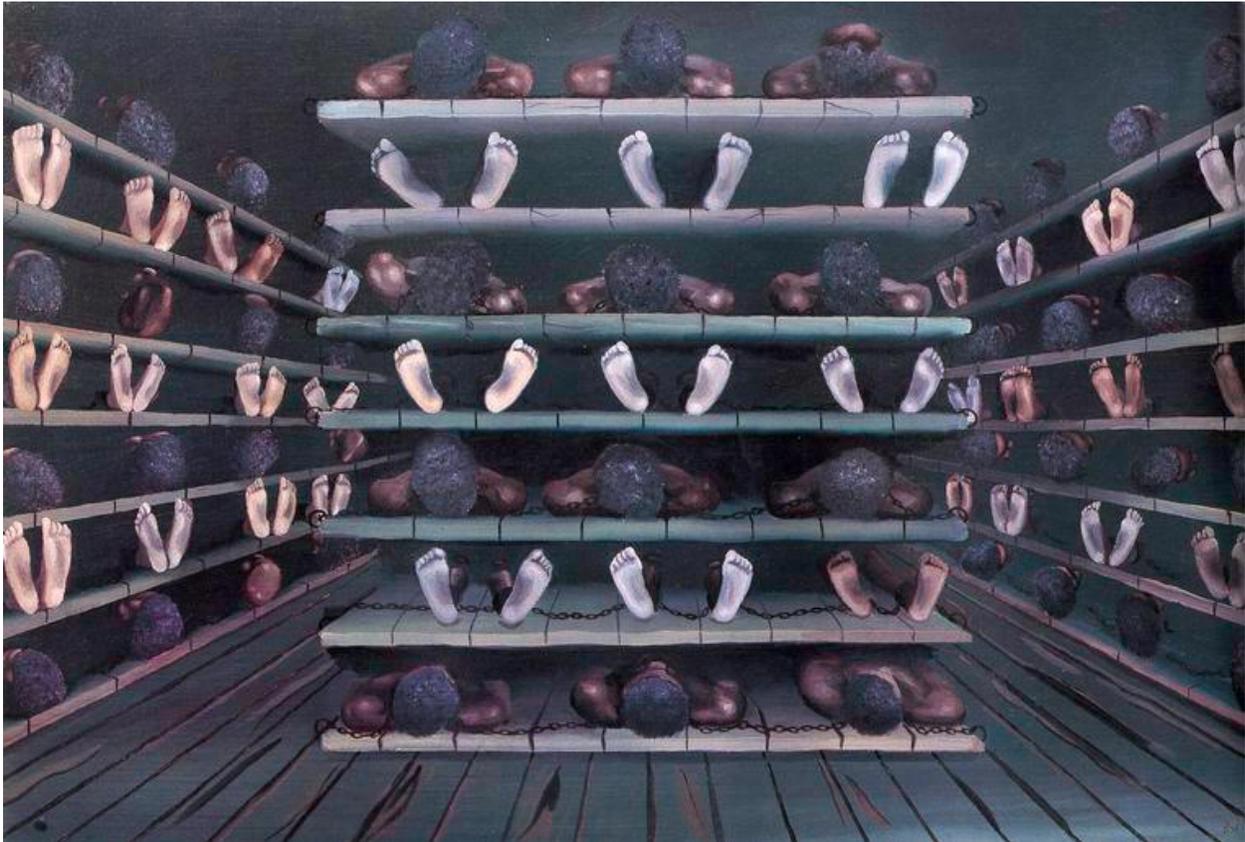
Appendix E: Slave Hold Dimensions

Figure 5. Pictured is a visual reference for the close quarters slaves endured during their journey to the Americas. Adapted from “Transatlantic Slave Trade: Transporting Africans to America”, 2012, by Inform Africa. Retrieved from <http://www.informafrika.com/african-studies/transatlantic-slave-trade-transporting-africans-to-america/>.

Appendix F: Daily DASH Diet Meal Plans

Breakfast

Hot Chocolate

Hard Boiled Eggs

Light Cranberry Juice

Strawberries

Midmorning Snack

Key Lime Light Yogurt

Almonds

Lunch

Acapulco Tuna Salad in Pita Pocket

Sliced Bell Peppers

Sliced Tomatoes

Sugar-free Orange Jell-O

Midafternoon Snack

Nectarine

Handful of Cashews

Before-Dinner Snack

Peanuts in the Shell

Dinner

Meaty Red Sauce Over Spaghetti Squash

Romaine Salad with Italian Dressing

Frozen Light Fudge Bar

Breakfast

1 ounce whole wheat cereal

8 fluid ounces nonfat milk

4 ounces raspberries

4 fluid ounces orange juice

Lunch

Santa Fe Lentils in Tortillas, in whole wheat or corn tortillas, or on the salad

Side salad, with Ranch Dressing

8 fluid ounces nonfat milk

4 ounces fresh pineapple slices

Glass of water with lemon slices

Snack

Plum

1 ounce reduced-fat cheese

Dinner

Faux Pasta e Fagioli alla Venezia

Stone Fruit Salad

Glass of red wine

The previous meal plans are examples of a prescribed daily diet for someone adhering to the

DASH diet. Adapted from Heller, M. (2018). The Dash Diet Eating Plan. Retrieved from

http://dashdiet.org/everyday_dash_diet_recipes.asp

Appendix G: African Heritage Diet Pyramid

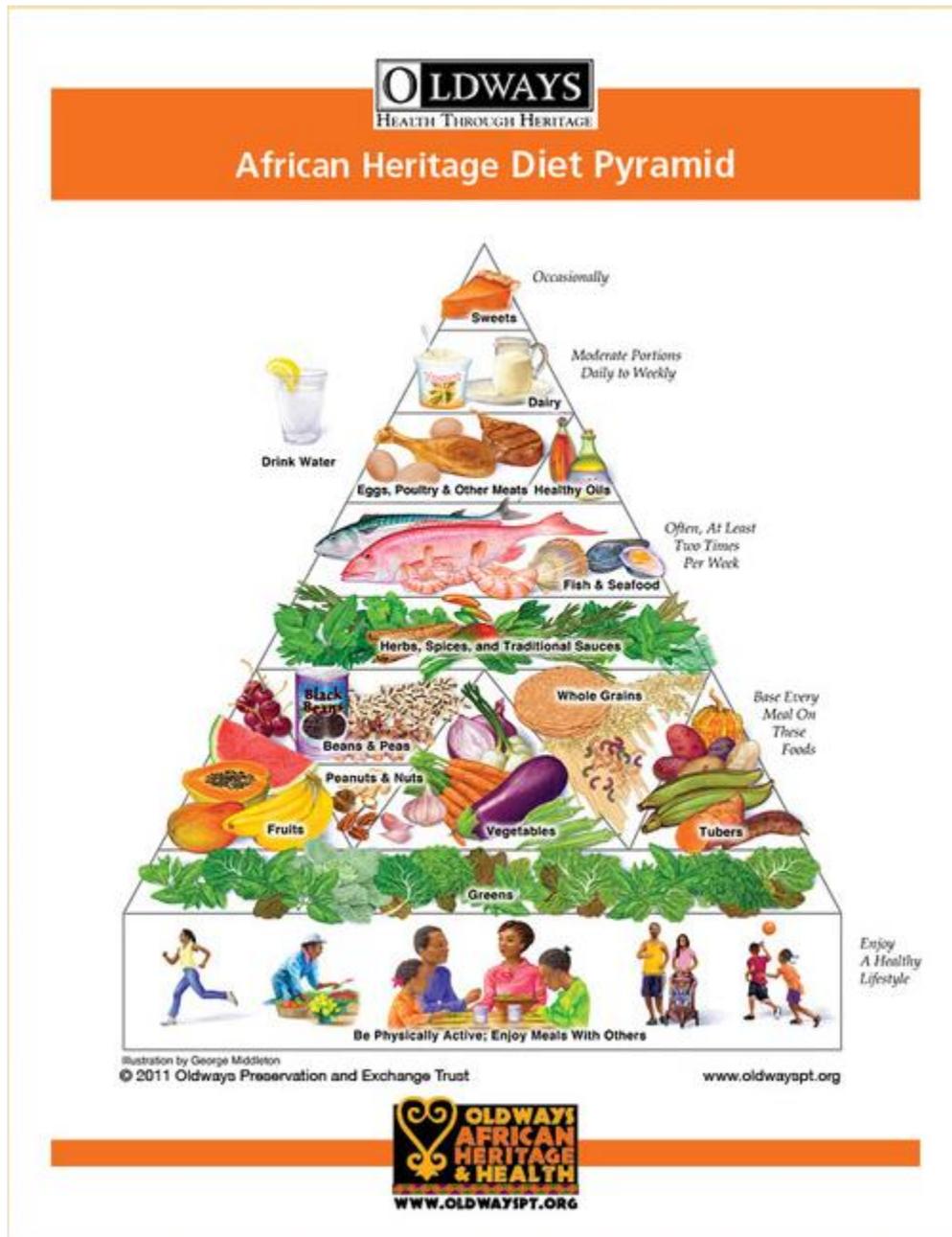


Figure 6. Pictured is the Oldways African Heritage Diet food pyramid. Adapted from African Heritage Diet by Oldways. Retrieved from <https://oldwayspt.org/traditional-diets/african-heritage-diet>

Appendix H: Connectivity

