

## Review

## Obesity Pillars Roundtable: Obesity and Diversity

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## ABSTRACT

**Background:** The clinical implications of obesity differ, depending on race, ethnicity, and sexual orientation.

**Methods:** This roundtable discussion included 4 obesity specialists with expertise in the clinical management of obesity among diverse populations including Blacks, Hispanics/Latinos, Lesbian-Gay-Bisexual-Transgender-Questioning (LGBTQ) individuals, and Native-Americans.

**Results:** One of the first obstacles towards overcoming disparities in managing obesity and its complications among diverse populations is understanding applicable terminology. This includes categorization terminology relative to Native Americans (for the purpose of assessing culture and possibly genetic predispositions), understanding the differences between Black African Americans and Black Africans, understanding the differences between the terms Hispanic and Latinx, and basic concepts behind different pronouns applicable to Lesbian-Gay-Bisexual-Transgender-Questioning (LGBTQ) individuals. After being better able to grasp the input from patients with diverse backgrounds, universal obesity assessment and management principles can be then tailored utilizing a patient-centered approach.

**Conclusion:** Understanding the unique genetic, culture, and terminology regarding patients of different races, ethnicities, and sexual orientation may help clinicians better engage patients in managing obesity via utilizing a more patient-centered approach.

## 1. Introduction

**Dr. Bays:** Hello. My name is Harold Bays MD. I am Editor-in-Chief of Obesity Pillars [official journal of the Obesity Medicine Association (OMA)], and Chief Science Officer of the OMA. I am serving as moderator for this **An Obesity Pillars Roundtable on Obesity, Race, Ethnicity, and Sexual Orientation**. Obesity has different clinical implications among patients of different races, ethnicities, and sexual orientation. Today I am honored to have a discussion with 4 obesity specialists with expertise in management of obesity among diverse patient populations.



I would like to start by giving everyone the opportunity to describe their background. Dr. Muñoz-Mantilla, please briefly summarize your

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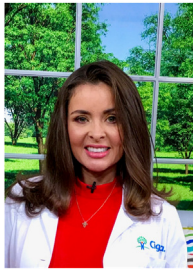
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personal and clinical relationship with the Hispanic/Latino community, and how this applies to your clinical management of obesity.



**Doris X. Muñoz-Mantilla:** I am a proud Latina- Hispanic physician. I was born and raised in Bucaramanga, Colombia. I graduated from Medical School in Colombia and moved to US to pursue a career in Family Medicine. In the initial years of my practice as a Family Physician, I noticed that a common denominator for the most frequent complaints and diagnoses in my patients was excessive body weight. It was the desire to better serve my patients that was my main inspiration to become an Obesity Medicine Specialist. Exposure to high processed and calorie dense food, combined with more sedentary behaviors and decreased social connections, are important contributors to decreased health levels for immigrants. Most Latin and Hispanic diets are full of fresh fruits, vegetables, beans and one dish meals. In Latin and Hispanic cultures, meals are occasions for friends and family members to come together and enjoy each other's company. These dietary habits and customs are affected as communities relocate. As an immigrant, I have faced similar challenges during the process of acculturation. My background, expertise and cultural sensitivity allows me to understand the unique challenges that the Hispanic/Latino community experience when facing overweight and obesity related medical conditions.

**Dr. Bays:** Dr. Morgan, what is your connection to the LGBTQ community, and how does this apply to your clinical management of obesity?



**Dr. Morgan:** I am a happily married, cis-gendered, gay male who uses the pronouns he/him. Before coming to terms with my sexuality, I always felt different. The palpable awareness I carried from childhood shaped multiple aspects of how I interacted with the world, like being guarded. I didn't accept my sexuality until the age of 25. Even then, the pattern of building psychological walls continued during medical school and residency, limiting professional and personal growth. It's difficult to explain how the psychological weight of hiding such an important part of oneself can be difficult to rid. Where before the burden was hiding my true self, now it manifests as representing my community and reaching my full potential. The bright side is that being different can create shared compassion for those who also live in the margins of society. Undoubtedly, a large majority of patients with obesity feel societal shame and stigma. I believe my background provides insight into how some patients are feeling. It's rewarding when I educate patients on treating obesity as a disease and can watch their eyes light up as they begin to shed the shame and stigma they've been carrying.

**Dr. Bays:** Dr. Nwizu, what is your relationship to African Americans and/or Blacks, and how does this apply to your clinical management of obesity?



**Dr. Nwizu:** I am a naturalized Black American originally from Nigeria. I medically manage both weight loss and non-weight loss patients, Hispanic, non-Hispanic Whites, and non-Hispanic Blacks. I have an obesity medicine practice in Greeley Colorado with a population consisting of 2.4% Blacks (<https://www.census.gov/quickfacts/greeleycitycolorado>). Because Blacks are in significant minority in my area, I see fewer Black patients in my practice. I find a disproportionately higher body mass index (BMI) among African American patients compared to the Black immigrant patients, both in my practice and in the city of Greeley. I have also found higher rates of cardiometabolic diseases, cigarette smoking among Black African Americans compared to Black immigrants. [1] I grew up in the African culture where obesity is generally perceived as sign of good living, which makes it paramount in the management of obesity in this population to start by dispelling this myth and introduce obesity as a disease with numerous untoward health consequences.

**Dr. Bays:** Finally, Dr. Garcia, what is your relationship to the Native American Community, and how does this apply to your clinical management of obesity?



**Dr. Garcia:** I am Mexican American and Native American. My spiritual connection to the Native American community is through the Sun Dance, a Lakota ceremony that was evangelically carried out to other tribes. I am a Sun Dancer and a Pipe Carrier; I have danced at the Tatanka Ohitika Memorial Dance grounds in Mt. Hood National Forest and with the "Goes In The Air Sun Dance" outside of Mt. St. Helens, Oregon, on the banks of the Columbia River. My Native American ties have taught me that the coming of the Europeans disrupted our dietary habits, took away our traditional foods (whether reservation Indians or Urban Indians), and largely replaced them with carbohydrates. Whether our food comes from the delivery of commodities to the reservation or from shopping in food deserts with food stamps, the bottom line is the preponderance of carbohydrates. Even our feasts at the end of a Sun Dance contain too much carbohydrate. Carbohydrates in our diets lead to insulin resistance which leads to obesity which leads to diabetes which, among Native people, progresses to End-Stage Renal Disease, a primary cause of death in Native Americans with diabetes [2]. My clinical management of obesity focuses on reducing the amount of carbohydrates my patients eat.

## 2. Terminology

**Dr. Bays:** Differences in the perception of what is meant by "obesity" may vary among diverse populations. A general finding is that BMI is

higher among those of lower socioeconomic status; but the perception of having increased adiposity is higher among those with higher education and income [3]. While reports suggest individuals of different racial/ethnic minority backgrounds may have similar BMI-related body shape concerns as White individuals [4], my sense is that bodyweight perceptions differ among diverse populations. For example, years ago we did a survey study of over 15,000 participants who were asked to rank their body image via use of the Stunkard Rating scale. Female responders chose a correspondingly thinner figure as their ideal body image compared to males [5]. Some evidence suggests Blacks may underestimate their BMI compared with Whites, which may be especially so for Black females [6]. Similarly, Hispanics/Latinos may culturally perceive an increase in body weight as a symbol of health and wealth, with many Hispanic/Latino males reporting a preference for larger sized females as mates. Potentially as a result, Hispanic/Latinos (especially females) may misperceive their body size compared to non-Hispanic White females [7]. Regarding American Indians, even among tribal college students, at least one survey suggested that more than half with pre-obesity (overweight) or obesity underestimated their weight category, with males more often underestimating their weight category than females [8]. Finally, a detailed discussion of the extent, cause, and treatment of body image misperceptions among the LGBTQ community is beyond the scope of this roundtable discussion. However, general principles are that many lesbians, gays, and bisexual (including youths) experience body dissatisfaction [9,10]. Further complicating matters is that some evidence exists that while lesbian or bisexual females are at increased risk of pre-obesity (overweight) or obesity compared to heterosexual females, gay males may be at relative decreased risk compared to heterosexual males [11]. Obviously, within each of these diverse groups, wide variance exists in an individual's risk for pre-obesity or obesity. Nonetheless, being aware of the potential influence of diversity on body weight is an important factor in evaluating patients with obesity.

Beyond the generalities of patient body weight perception, I want to specifically ensure we are all on the same page regarding basic terminology. Dr. Garcia, for decades, I have had a research interest in the relationship of adiposopathy (obesity-mediated “sick fat”) in unique patient populations, particularly as it relates to increased cardiovascular disease (CVD) risk [12]. An illustrative example would include the Pima (Akimel O’odham or “river people”) Indians. As you know, Pima Indians are subset of Native Americans located in southern Arizona and northern Mexico who have a high rate of CVD risk factors (e.g., high prevalence of obesity, insulin resistance, type 2 diabetes mellitus, high triglyceride levels, low high density lipoprotein cholesterol levels, and high prevalence of metabolic syndrome) [13–15]. Interestingly, older literature suggests CVD risk among Pima Indians may not be as high as predicted, given the high prevalence of CVD risk factors – possibly related to reduced levels of untreated low density lipoprotein cholesterol levels [16]. However, CVD remains a major cause of mortality among Pima Indians. Most of all, Pima Indians have an extraordinarily high rate of diabetes mellitus, kidney disease, and obesity. Furthermore, irrespective of the unique clinical considerations of Pima Indians, American Indians and Alaska Natives may generally be 50% more likely to have CVD compared to non-Hispanic Whites. This may be due to a higher rate of diabetes mellitus, hypertension, cigarette smoking, and especially obesity [15]. Dr. Garcia, a long-running theme in the published literature is that Native Americans (i.e., with the term “American Indian” still used in the medical literature) represent a diverse population, both genetically and culturally [17]. From a clinician standpoint, what are common categorizations of Native Americans, and how are these categorizations of practical importance in obesity management?

**Dr. Garcia:** Classification of the indigenous peoples of the Americas is based upon cultural regions, geography, and linguistics. The categorizations I have chosen to use are geographical and are taken from the Wikipedia “Classification of Indigenous Peoples of America.” ([https://en.wikipedia.org/wiki/Classification\\_of\\_indigenous\\_peoples\\_of\\_the\\_Americas](https://en.wikipedia.org/wiki/Classification_of_indigenous_peoples_of_the_Americas))

While variation exist in these regions, peoples forcibly removed by nation-states have often retained their culture and original geographic classifications. Thus, categorized Native American groups can span multiple regions. The geographical categories include the Arctic, the Subarctic, the Pacific Northwest Coast, the Great Plains, the Eastern Woodlands, the Great Basin, California, and the Southwest. I am limiting the categories to those on Turtle Island (i.e., the North American continent).

The question I am asked is whether the diversity of Native American subgroups represent genetically distinct populations or tribal groups. When one looks at the geographical categorization above, it is obvious that Native American categories are separated by large geographical boundaries such as the Mississippi River or the Rocky Mountains. We know from the Galapagos Islands and Darwin that geographical boundaries result in genetic differences, sometimes even different speciation. While I am not suggesting Eastern Woodlands people and the Pacific Northwest people are different species, I am suggesting different genetic patterns may exist. The Pima people, with their high rates of obesity and diabetes, are tucked into a small section of the Grand Canyon, separated geographically from other tribes belonging to the Southwest category. Even though diabetes rates are high among Native Americans, the Pima reportedly have rates much higher than other tribes. In addition, those members of the Papago tribe who live in that same geographical area have the same high rates while the rest of the Papago do not. So, yes, it is likely genetic differences exist between the different geographical categories.

If we look at categorization of Native Americans genetically instead of geographically, it can lead one to question the assumption that all Native American people came to the Americas from Siberia over the Bering Land Bridge. This theory does a good job of explaining the various tribes west of the Mississippi, and it's handy because it follows the Rockies all the way down to the southern tip of South America. But it does not explain the presence of the Eastern Woodlands tribes, divided into Northeastern Woodlands and Southeastern Woodlands, nor does it explain the Arctic and Sub-Arctic tribes in Eastern and Northeastern Canada. This raises the possibility that different groups of Native Americans may have different genetic origins.

Most studies of Native Americans have been epidemiological observation studies. The extent the Pima and Papago tribes have undergone clinical study are the exception, not the rule. Further, except for the Pima, the research on obesity among Native Americans most often compares them to non-Indians, rather than looking for differences between geographical categories or tribes. It is my contention that observation-only studies are not a substitute for tribal group genomics. Studies of diabetes and obesity rates between tribes from different geographical areas, particularly the Western tribes vs the Eastern Woodland tribes, would be valuable – especially if accompanied by genetic testing. This is important because if different Native American tribes have clinically meaningful differences in genetic predispositions, then this would have the potential to affect diagnostic and treatment approaches of Native Americans having high rates of obesity and diabetes mellitus.

Beyond potential genetic factors, environment also plays a role. Beginning at least since the 1800's, the increased prevalence of obesity, diabetes mellitus, and the metabolic syndrome among Native Americans reflects the adverse health consequences of introducing policies and technologies that contributed to physical inactivity (limitations on freedom to hunt), overnutrition (especially regarding ultra-processed carbohydrates), and psychosocial stresses [18]. Even our greatest delicacy, fry bread, is a result of the original food shipments: flour and lard.

Finally, other environmental factors include that historically, the United States American Indian and Alaska Native population have faced health disparities, with a relatively high prevalence of physical and mental health problems and high uninsured rates [19]. Furthermore, different Native American groups may differ in health metrics when evaluated from rural versus urban living locations. It is estimated that 80% of the Alaskan Native population resides outside of reservations or

land trusts and about 40% reside in rural areas, with health metrics and dietary patterns differing between urban versus rural and reservation versus non reservation living [19,20].

**Dr. Bays:** Dr. Nwizu, obesity and CVD are the leading causes of death and disability. Blacks have poorer health and health outcomes from obesity and CVD due to factors often incorporated in terms such as “structural racism” [21], with underrepresentation of racial/ethnic minorities in clinical trials being another contributing factor [22]. Many of the disparities found in CVD risk can be attributed to racial/ethnic and socioeconomic disparities in diet quality, with unhealthful nutrition accounting for the greatest degree of obesity and CVD-related morbidity and mortality [23]. Another challenge is that some may have the sense that African Americans and other Blacks are the same when it comes to metabolic health. While many understand Black African American populations have higher rates of obesity, diabetes mellitus, high blood pressure and CVD than Whites, what may be less known is that despite possessing similar genetics as African Americans, Black Africans have reduced CVD compared with Whites [24]. Surveys suggest that compared to established African Americans, African immigrants are often more educated, younger, and more employed, but less likely to have insurance [25,26]. The level of education may be key. Because even among Black African Americans, higher education may be associated with reduced CVD risk factors, such as reduced prevalence of hypertension [25]. Nonetheless, African immigrants appear to have mild to modestly lower age-standardized hypertension, diabetes mellitus, high cholesterol, and current smoking than African Americans. Specifically, at least as of 2011–2016, compared to African Americans, African immigrants had a lower rate of overweight/obesity (61% versus 70%) [1]. Having said this, it is troubling that the demographics are evolving (or devolving) so quickly. Among the most rapid increases in the prevalence of obesity is in both South (Sub-Saharan Africa) and North Africa, with profound clinical implications regarding increased CVD and cancer risk [27,28]. Dr. Nwizu, what is your sense about differences between American and non-American Blacks, and how does this affect your management of obesity?

**Dr. Nwizu:** As you mentioned, despite sharing many of the same genetic and social contributors to overweight and obesity, as well as sharing many of the similar disparities and inequities (e.g., poor socioeconomic status, poorer access to health care, discrimination, and bias), African Americans have higher prevalence of overweight and obesity compared to non-American Blacks (immigrants). Comparing overweight and obesity between African Americans and Black immigrants provides informative data in comparing these two populations with similar ancestry (i.e., genetics). Given this large degree of genetic factors equivalency, differences in obesity and CVD risk factors suggests societal environment plays a clinically meaningful role in geographic or ethnic variations in weight. Social and cultural exposures are likely substantial contributors to the high rate of overweight and obesity seen in African Americans compared to the Black immigrants.

In one example, higher education was associated with more healthful lifestyle choices [29], with higher education among African Americans being generally associated with an array of favorable behavioral and psychosocial antecedents of physical health, partially explaining health disparities [30]. Overall, data suggest that in the United States, literacy rates are >95% (<https://www.wyliecomm.com/2021/08/whats-the-lat-est-u-s-literacy-rate/>). Literacy rates in Sub-Saharan Africa is estimated to be around 65% (<https://data.worldbank.org/indicator/SE.AD.T.LITR.ZS?locations=ZG>). Some may therefore find it paradoxical that African immigrants have a relatively higher educational attainment than African Americans, with African immigrants often being more educated than their European counterparts. (<https://www.pewresearch.org/global/2018/04/24/sub-saharan-african-immigrants-in-the-u-s-are-often-more-educated-than-those-in-top-european-destinations/>). But the higher level of education among African immigrants may be due to a positive selection process that favors migration of more educated individuals to the United States. An inequity faced by Black immigrants is

the relative lack of health insurance (despite greater employment) that may contribute to poorer access to care. Many African nations have health care user fees or health care premiums that deter attainment of health care [31]. This would contrast with the US that has government-sponsored insurances for the poor, such as Medicaid and Medicare. Irrespective of whether Blacks are African Americans or African Immigrants, my approach to weight management in these two genetically similar, but culturally different groups is implementation of a targeted culturally directed intervention.

**Dr. Bays:** Dr. Muñoz-Mantilla, some use the terms Hispanic and Latino interchangeably. Others use the term Hispanic for people of any race with Spanish-language background (e.g., Spain, Mexico, majority of Central and South American countries). But because many in Latin American counties speak Portuguese, French, and even Italian and Romanian, some reserve the term Latino for any race with origin in Latin America (South America, Central America, islands of the Caribbean, and North American immigrants from Latin America). For example, people from Brazil are considered Latino because Brazil is in South America. However, people from Brazil are not generally considered Hispanic, because their native language is Portuguese (not Spanish). In clinical trial reporting of study patient characteristics, we almost always include race in tables regarding patient demographics, while ethnicity is less consistently listed. When it is listed in clinical trial reporting, ethnicity is usually in a separate row in the table and labeled as “Hispanic or Latino” and/or “Not Hispanic or Latino”. Dr. Muñoz-Mantilla, when it comes to managing obesity, to what degree do the terms “Hispanic” or “Latino” matter?

**Dr. Muñoz-Mantilla:** The terms Hispanic and Latino are often used interchangeably, although they mean two different things. Hispanic refers to people who speak Spanish or are descended from Spanish-speaking populations, while Latino refers to people who are from or descended from people from Latin America.

In the United States the terms “Hispanic” and “Latino” (or “Latina” for a woman; sometimes written as “Latinx” to be gender-neutral) were adopted to loosely group immigrants and their descendants who hail from this part of the world. It is important to clarify the categories refer only to a person's origin and ancestry. A Latino/a or Hispanic person can be any race or color. Latinos and Hispanics are a diverse ethnic group that includes many different cultures, races, and nationalities. Barriers to care have resulted in striking disparities in quality of health care for these patients [32].

In obesity medicine terms, it is important to avoid generalization of the dietary approach for the Latin and Hispanic communities. Not all Hispanic and Latinos have the same dietary preferences. For instance, a Hispanic born in Spain or from Spain ancestors is more likely to follow a Mediterranean diet that includes fish, seafood, meats, whole grains and healthful oils. A Latinx that is born in Colombia or from Colombian ancestors, is more likely to follow a diet that includes cereals such as rice, corn; tubers such as potato and cassava; assorted legumes; meats, including beef, chicken, pork and goat; fish; and seafood. As Obesity Medicine specialist we want to prescribe culturally sensitive dietary plans that allow our patients to increase adherence to healthful nutrition.

**Dr. Bays:** Dr. Morgan, it is beyond the scope of this Roundtable discussion to comprehensively define all pronouns (i.e., I believe now as many as 30 or more) potentially applicable Lesbian-Gay-Bisexual-Transgender-Questioning (LGBTQ) individuals (with “Q” sometimes representing the word “Queer”). However, communication is clearly key in providing optimal health care to LGBTQ individuals [33]. I find analogies to obesity regarding compassionate vocabulary. We at the Obesity Medicine Association have recommended terms such as “weight” and “body mass index” be used over terms such as “obese” and “fat.” [34] We do so because use of the latter, more pejorative language may undermine effective health care. Similarly, interviews with transgender and nonbinary individuals suggest that a lack of patient-centered language and care may exacerbate health care inequities [35]. Dr. Morgan, could you please provide some guidance regarding basic pronoun use for

clinicians managing LGBTQ patients, and how does the use of such language improve your management of patients with obesity?

**Dr. Morgan:** Finding the “correct” language in describing other humans is – and always will be – a moving target. It may be best to try best to stay abreast of what’s broadly become taboo, and to be completely and proactively open to correction. A quick, but genuine apology and an attempt to change, shows individuals that you care and are trying. Briefly, it may be helpful to think of LGBTQ language in terms of categories. Common terms for sexual orientation include heterosexual (straight), homosexual (gay), bisexual (bi), pansexual, demisexual, or asexual. Common terms for gender identity include cisgender, transgender, non-binary (gender fluid or gender queer). It’s important to point out that intersex is not a gender identity, but rather a biologic description. (For a more comprehensive glossary, see the Michigan State University’s Gender and Sexuality Campus Center at <https://gssc.ms.u.edu/education/glossary.html>).

Intake questionnaires with write-in blanks for gender, sexual orientation, or pronoun can gather sensitive information. During interviews, using non-stigmatizing language such as, “Do you have sex with men, women, or both,” or, “In order to better take care of you, it would be helpful if you could tell me . . .” can be helpful. The word “queer” has been used as a pejorative in the past. Despite this history, I think the LGBTQ community has reclaimed the word and many, including myself, find it as an easier way to reference the community in its entirety. Everyone is different and it’s impossible to know which term will be received best without asking. Ultimately, if patients know your heart is in the right place, that will far overshadow anything else. I believe anytime patients feel they are in a safe place, it improves rapport and success, including patients with obesity.

### 3. Practical tips and recommendations

**Dr. Bays:** Dr. Nwizu, in Louisville Kentucky, we have elements of both Mid-West and Southern culture. **Table 1** outlines some recommendation we make for our African American patients consuming cuisine many might consider “southern.” I believe your obesity medicine practice is in Colorado. Please provide your “top 3 tips” when managing obesity in patients who are Black.

**Dr. Nwizu:** I employ primary prevention measures directed towards the development of effective, culturally sensitive strategies for prevention and treatment of obesity. This involves:

1. Early intervention in addressing pediatric obesity
  - Encouragement of increased participation in physical exercise
  - Decreased consumption of sugar sweetened beverages
  - Decreased screen time
  - Reduced intake of fast food or junk food
  - Promotion of breast feeding
2. Education and Implementation of behavior modification
  - Education includes addressing the cultural myth in the Black Africans that obesity is a sign of wealth and healthful living, and a culture that sees “carrying a pot-belly” (abdominal/central or visceral obesity) as a sign that the individual is well fed and wealthy
  - Behavior modification includes encouraging physical activity, emphasizing healthful dietary habits (such as decreasing alcohol intake), offering education that discourages sugar sweetened beverages, replacing energy dense foods with healthier food choices, replacing intake of refined carbohydrates with complex carbohydrates and fiber, and increasing consumption of fresh fruits and vegetables
  - Discouraging the culture that emphasizes consumption of every food on your plate (to appease the cook) or that unfinished foods should not be wasted in a trash can but should be eaten, to consumption of reduced portion sizes at mealtimes
3. Physical activity/exercise
  - Encourage programed physical activity, non-exercise activity time

**Table 1**

“Your Body Goal” Nutrition Patient Recommendations for African Americans (copied with permission).

#### “SOUL FOOD”

Soul food is an African American cuisine most often described in the Southeastern United States. It often overlaps with the “southern style diet.” The term “soul” in “soul food” is derived from spiritual description of African American culture, as in “soul music.” Many of these foods originated from the need for inexpensive food preparation. The meats were often those considered undesirable leftovers. As with other ethnic foods, “soul food” can be made healthful or unhealthful, depending upon how the food is prepared – as it specifically pertains to calories and sodium (salt). In many patients, higher sodium intake increases blood pressure, which is especially problematic in African Americans. This can lead to heart disease, stroke, and kidney failure.

#### BREADS:

Biscuits made with shortening (butter or fats) are not only are high in calories but may also be high in sodium. This is especially unhealthful for African Americans. It is better to experiment and make your own biscuits using whole-wheat flour. Substitute as much of the butter as possible with fat-free buttermilk and a bit of canola oil. Cornbread can be made in a more healthful way by combining cornmeal with whole wheat flour (even white whole wheat flour if necessary), and then adding Greek yogurt, small amounts of butter or coconut oil, and perhaps vanilla extract and/or honey.

#### VEGETABLES:

Cruciferous vegetables include collard greens (leafy vegetables similar to kale), turnip greens (leafy part of the turnip plant), and mustard greens. Cruciferous vegetables are high in nutrients and low in calories, but only when cooked in a healthful way (e.g., olive oil, garlic, and limited sodium). If eaten with a meal, mashed potatoes can be healthful, if you do not add fats and sodium, such as too much butter and many types of gravies. Succotash is often prepared as a mixture of corn, lima beans, tomatoes, onions, peppers (green or red peppers) and okra. Succotash is very healthful, if you do not add too much sodium (salt) or add fats such as bacon.

#### LEGUMES:

Butter beans (white), lima beans (green), and black-eyed peas (which are beans) are generally healthful foods when cooked in water (or broth), and without too much added sodium and without added fatty meats. Red beans can be cooked with garlic, onion, celery, red peppers, and limited olive oil, then mixed with a healthful rice choice.

#### BREAKFAST & DESSERTS:

When hard corn kernels are milled or ground, the flour-like grind is cornmeal. If the corn was treated to remove the hull, then the ground corn is called hominy grits. Even with the loss of hull fiber, hominy grits still have considerable fiber. Thus, similar to oatmeal which is made from oat grain, grits are also high in fiber, low in calories, and rich in other nutrients. Grits are made less healthful when you add butter, sugar, cheese, and salt. “Milk and bread” is cornbread dipped in buttermilk, and sugar, and can be more healthful when consuming lower calorie cornbread and low-fat buttermilk.

#### MEATS:

While better if grilled or baked, fried catfish and other fish can be prepared more healthful by cutting the fish into fillets, breading them with cornmeal, and then baking the breaded fish fillets on a baking pan covered with a few tablespoons of vegetable oil. Seasonings might include creole or paprika. Depending on the portion size, presence or absence of bone, and curing (e.g., adding salt), pork neckbone and pork rib meat can vary regarding calories and sodium. If properly cleaned, chitlins (chitterlings or the small intestines of pigs) can be prepared in a healthful way by boiling, and then adding onion, vinegar, lemon pepper, and garlic. Ham hocks (pork knuckle) come from the foot joint of a pig, have limited meat, and often boiled to create a broth or add flavoring to soups. Hogshead or head cheese is not cheese. Headcheese is derived from boiling the head of the pig, with the end-product being composed of bone collagen tongue, and sometimes feet, and heart. Headcheese can be pickled with vinegar and sold as souse luncheon meat. One slice can be relatively low in calories and sodium. Other soul foods are challenging to make healthful. Fatback is a cut of the fat tissue from the back of a pig. Pork or hog jowls are the cheeks of pork, and typically fried like bacon. Pig’s feet are often preserved in vinegar or saltwater brine (pickled). When cured, not only are these foods high in calories, but also high in sodium. Chicken livers are very high in cholesterol, and if deep fried, also high in fats. Pork rinds are the skin of the pig which are often fried in lard, seasoned with salt, and sold as snacks. While few packaged deep-fried snacks are “healthy,” some pork rinds may be more healthful than some potato chips, particularly if microwaved instead of deep-fried.

- Discourage use of house-helpers. As with other races, some affluent African males may display wealth by employing chauffeurs, employing house helps to serve them food, drinks, and run petty house errands and yard work, and generally engage in unhealthful behaviors and actions that depict wealth, but may considerably

reduce non exercise activity thermogenesis and significantly promote sedentary lifestyle/behaviors.

**Dr. Bays:** Dr. Morgan, please provide your best 3 tips when managing obesity in patients who may be included in LGBTQ.

**Dr. Morgan:** My three tips include:

1. **Screen for eating disorders in all groups.** This can be performed with screening questionnaires like “Sick, Control, One, Fat, and Food” (SCOFF) and the Eating Disorder Examination Questionnaire (EDE-Q) [36], as well as Eating Attitudes Test (EAT-26), Eating Disorder for Primary Care (ESP), and Questionnaire for Eating Disorder Diagnosis (Q-EDD) [37,38]. Other more specialized questionnaires include Binge Eating Disorder Screener-7 (BED7) [39] and Night Eating Questionnaire (NEQ) [40].
2. **Ask for preferred terminology.** It's as easy as asking, “What is your preferred term for gender?” or “What is your preferred term for your sexual orientation?”
3. **Evaluate if patient has adequate social support.** As always, there's usually a questionnaire for everything, including social support, which can be screened using the Social Support Questionnaire- Short Form (SSQ6). I find the easiest way, however, is to ask the patient outright if he/she feel he/she has adequate support at home. I may tease out types of support, such as asking “Do you have practical support at home? Do you have emotional support at home? Do you have a church community or community of friends you can count on?”

**Dr. Bays:** Dr. Garcia, please provide your top 3 best tips when managing obesity in patients who are Native Americans.

**Dr. Garcia:** When working with Native people, especially if you are not Native, it is best not to make assumptions about diet and activity. One might say that I have declared war on carbohydrates and implicated them in the development of obesity of the Native population; however, it is most important to take a full history, inclusive of the diet a family eats and the state of their exercise activity. This history should be an opportunity for the physician to learn about Native Americans and their culture. Much of the delivery of healthcare to Native people, particularly those upon reservations, has been hampered by either a sense of superiority in the medical personnel or, contrary-wise, an attitude of veneration which is just as much a hindrance in discovering who the individual patient is and what their life may be like. Once you have taken that history, you might then be better informed how to discuss their dietary habits. My three tips include:

1. Try not to make carbohydrates the main course of meals. If you need to depend on carbs to make enough food to satisfy the hunger of the family, then try to balance it out with protein. That means including meat balls or meat sauce with spaghetti instead of using just sauce or adding more cheese to macaroni and cheese, especially if you are using boxed dinners where the cheese is in powdered form. If you are making Hamburger Helper or Tuna Helper, increase the amount of hamburger (or tuna) for each box
2. Hunt and fish as much as possible to add more protein to your diet (this would not apply to Urban Indians).
3. Doctors should learn about traditional Native American foods and discuss them with their Native patients, then encourage them to include more of these in their diets.

**Dr. Bays:** Dr. Muñoz-Mantilla, [Table 2](#) outlines some recommendation our Institution makes for our Latinx patients. Please provide your best 3 tips when managing obesity in Latinx/Hispanic Black patients with obesity.

**Dr. Muñoz-Mantilla:** As mentioned earlier, we want to individualized treatment plans based on cultural and ethnic backgrounds. For Hispanic and Latin populations, meals mean more than food and

nutrition. Meals play an important role in socialization. Foods are prepared, cooked and consumed with love, family, and friends. Recommendations that include avoidance of foods that are highly connected with cultural and ethnic backgrounds need to be negotiated and agreed with patients. Try to keep your recommendations simple and applicable to the entire household. Small changes can be easy to apply and sustain. Focus on the goal of improve wellness rather than weight loss. Recommend healthful food items that are part of your patient's Hispanic and Latin menus. Three practical and doable tips will include:

1. Be mindful of preparation methods and cooking oils - instead of frying, bake or grill. Instead of using lard or butter, use olive oil.
2. Use healthful substitutions while still maintaining the cultural integrity of the food. Use leaner cuts of pork, and beef. Cut salt and

**Table 2**

“Your Body Goal” Nutrition Patient Recommendations for Hispanic/Latinos (copied with permission).

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**BACKGROUND:**

Mexican and Tex-Mex foods are similar. However, traditionally, Mexican food rarely had beef, yellow cheese (cheddar), wheat flour tortillas, black beans, canned vegetables (e.g., tomatoes), sour cream, cumin, and guacamole. Traditional Mexican foods include pork, goat, seafood, and chicken, white cheeses, often corn tortillas, crema, lime juice, and raw onions. Examples of Tex-Mex foods include nachos, chili con carne or queso, and fajitas. Tex-Mex quesadillas have meats, vegetables, and sour cream. Quesadillas in Mexico are basically flour tortillas with cheese. Tex-Mex enchiladas use beef and yellow cheese in the tortilla wrap, which is then covered with dark red chili sauce. Enchiladas in Mexico often contain pork or chicken in the tortilla wrap, covered with green tomatillo sauce or mole sprinkled with white cheese. While not everyone eats Mexican or Tex-Mex foods, understanding these foods is a good way to understand basic nutrition principles.

**TACOS AND TORTILLAS:**

A tortilla is a thin, unleavened (made without yeast) flat bread made from corn or flour. Corn or whole wheat tortillas or taco shells are more healthful than flour. Tortillas that are baked or fried become hard shells. Therefore, soft shell tacos might seem to be a more healthful choice than hard shell. However, the number of calories and fats between hard and soft tacos shells are often not much different. Similarly, the number of calories between chicken and beef tacos are not much different. What matters more is the other stuff in the taco. Some Tex-Mex restaurants offer fresco style, wherein instead of cheese, sauces, sour cream, and guacamole, the inside of the taco is replaced with Pico de Gallo (i.e., tomato, onion, cilantro, serrano pepper). Even with adding mild sauce, these fresco options have only 150 Calories per taco.

**SALT AND SODIUM:**

Taco fillers such as Pico de Gallo and guacamole have less sodium than many dressings and sauces. Plain grilled chicken will likely have less sodium than marinated meats. Due to their fat and sodium, it is often best to skip the fried chips. Many burritos, quesadillas, and quesadillas not only have lots of fat and calories, but well over 1000 mg of sodium. The fat, calories, and sodium increase if “smothered” with red sauce, melted cheese, and sour cream.

**STARTERS:**

Healthful starters include grilled shrimp salads, or salads with beans, grilled chicken, and avocados. Stay away from chips. Be very careful with “taco salads”, which can contain as much as 1000 calories. If you must have an appetizer, choose salsa or guacamole (tomatoes, olive oil, garlic, and avocados) instead of queso (melted cheeses and salt).

**BE SMART WHEN GOING TO MEXICAN/TEX-MEX RESTAURANTS:**

Although Mexican and Tex-Mex foods are unique from other foods, and even unique between themselves, some of the same basic nutritional principles apply. Grilled fish tacos with a side of black beans and salad are more healthful choices than cheese nachos. Soft- or hard-shell chicken tacos with salsa can be a healthful choice, if you don't eat too many or add too much cheese or sour cream. Burritos can be made more healthful by choosing chicken or vegetables over beef, brown rice over white rice, low fat cheese instead of regular cheese, salsa instead of sour cream, and are more healthful if you don't deep fry the burrito (i.e., chimichanga). If you are careful with the add-ons such as sour cream, chicken fajitas are also a good choice, and a more healthful choice compared to quesadillas that contain highly seasoned meats, cheeses, and sour cream. Finally, wine has less calories than margaritas. As before, rather than try to guess the number of calories in Mexican/Tex-Mex restaurant foods, or any restaurant foods, it is best to research before you go, so you can make an informed, healthier choice.

**TIPS:**

**Usually more healthful choices:** Corn or whole wheat tortillas, brown rice, black beans, fajita, Pico de Gallo, guacamole, water, or unsweetened beverages

**Often less healthful choices:** Flour tortillas, chips, taco salad, refried beans, chimichanga, queso, sour cream, margaritas

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use spices like chili peppers, cumin, oregano, cinnamon, and cilantro to season dishes.

- Pick one starch per meal. Choose only one starch from options as: corn, rice, plantain, potatoes, tortillas, or yucca. Add a healthful portion of lean protein, and colorful vegetables and fruits to complete your plate.

**Dr. Bays:** Finally, Dr. Muñoz-Mantilla, you are outgoing Chairperson of the Obesity Medicine Association (OMA) “International and Diversity Committee” (with Dr. Ryan Morgan being incoming Chairperson) for which everyone on this Roundtable Discussion is a member. This committee is reflective of the importance OMA places on diversity. The purpose of this committee is not only to raise awareness, but rather to also promote real change in addressing disparities and obesity. As Chairperson of this committee, please describe some of the projects this committee has accomplished, and how clinicians can access deliverables generated by this committee.

**Dr. Muñoz-Mantilla:**The OMA “International and Diversity committee” was launched in 2021. We are privileged to have very skilled committee members with diverse cultural and clinical backgrounds. Our committee is working on the delivery of two big projects:

- Dietary guidelines for multiple ethnic and groups and people with intellectual and developmental disabilities. These guidelines will provide our members with culture sensitive tools to assist in the development of individualize obesity treatment plans for their patients.
- Creation of a diversity and inclusion resource library. The library will include helpful articles, infographics, and social media resources with the focus on obesity treatment in diverse communities. Resources will be available for all OMA members in our website, and we will encourage discussions in our LinkedIn OMA group.

**Dr. Bays:** Thanks to all of you for a highly informative and yet practical overview discussion of Obesity and Diversity. We covered a lot of ground in this short Roundtable discussion. My takeaway message is that while patients in the US are indeed diverse, several common and universal themes apply to management of all patients with obesity. Diagnosis of obesity should be accurate via a patient-centered approach and validated assessment. Treatment should incorporate the “4 Pillars” of the Obesity Medicine Association: healthful nutrition, physical activity, behavior, and medications (and possibly bariatric surgery). Both assessment and treatment should be individualized to address cultural diversity with respect to race, ethnicity, age, sex, gender, sexual orientation, and socioeconomic status. The goals of successful management of obesity are generally similar among diverse populations, with an illustrative exception being South Asians, which will be extensively addressed in another Obesity Pillars Roundtable discussion. To all of you, I give my thanks. My sense is that readers will much appreciate your expert perspective and personal insights. Thanks again!

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## Author contribution

HEB conceptualized the submission, wrote/sent questions to the other authors, and assisted with editing the manuscript. DMM, RM, CN, and TTG responded to their assigned questions, reviewed their sections, and approved the final document.

## Ethical review

This Obesity Pillars Roundtable represents original works, with work and/or words of others appropriately cited or quoted in the submission. This submission did not involve human test subjects or volunteers. HEB was not involved in the peer review process, nor the acceptance/rejection of the submission. Responsibility for the editorial process for this article was delegated to an independent Editor and/or Associate Editor.

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