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Racial and Ethnic Disparities in Dietary Patterns and Micronutrient Supplementation

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Dietary disparities among racial and ethnic minority populations contribute significantly to chronic disease burdens across the lifespan. This review synthesizes evidence on dietary behaviors among middle-aged and older adults, adolescents, and low-income children, highlighting how socioeconomic and structural barriers limit access to healthy foods. Non-Hispanic Black and Latino adults often fall short of fruit and vegetable intake recommendations, while adolescents from low socioeconomic backgrounds demonstrate lower nutritional knowledge and self-efficacy. Children enrolled in supplemental nutrition programs show racial/ethnic disparities in nutrient intake, with Non-Hispanic Black children particularly affected. Supplement use, a potential strategy to reduce nutrient deficiencies, is significantly lower among minority groups, especially women of color. Cultural, educational, and economic factors shape these patterns. Culturally informed nutrition education and policy interventions are needed to address the root causes of these disparities and promote dietary equity.

INTRODUCTION

Racial and ethnic disparities in health outcomes are a persistent concern in the United States, with growing recognition of how social determinants of health, including access to nutritious food and healthcare, add to these inequities. Studies have consistently shown that disparities in dietary patterns and micronutrient intake disproportionately affect racial and ethnic minority populations, contributing to higher rates of chronic diseases, including hypertension, diabetes, obesity, colorectal cancer, and inflammatory bowel disease.[1]

These disparities are rooted in a complex interplay of structural racism, socioeconomic inequality, food insecurity, limited availability of culturally appropriate dietary guidance, and historical mistrust in the medical system. For example, non-Hispanic Black and Hispanic/Latino populations are more likely to reside in "food deserts," areas with limited access to affordable, nutritious food, and are less likely to receive adequate counseling on diet and supplementation

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during medical visits.[1] Additionally, variations in cultural norms may further influence dietary practices.

Despite growing awareness of these issues, practical guidance for gastroenterologists and other clinicians on how to address them remains limited. Understanding the causes of underlying dietary disparities is essential for providing equitable, patient-centered care. This review examines the evidence on racial disparities in diet and micronutrient supplementation and offers practical strategies for healthcare providers to reduce these gaps in clinical practice.

Disparities in Dietary Behaviors of Middle-Aged and Older Adults

Racial and ethnic minorities, particularly non-Hispanic Black individuals, face a disproportionate burden of chronic diseases associated with modifiable lifestyle factors, including cardiovascular disease, hypertension, and diabetes, compared to their White counterparts.[1] Diet quality, particularly the consumption of fruits and vegetables, is a key determinant in the prevention and management of these chronic diseases.[2] A growing body of evidence from long-term prospective studies demonstrates an inverse relationship between fruit and vegetable intake and the risk of cardiovascular disease, type 2 diabetes, certain cancers, and overall mortality - independent of other health behaviors.[3]

Findings on racial and ethnic differences in dietary intake remain mixed. While some studies report that non-Hispanic Black and Latino middle-aged and older adults consume fruits and vegetables at levels comparable to non-Hispanic Whites,[4] other research has shown significantly lower intake among non-Hispanic Black adults.[5] August et al. reported that non-Hispanic White adults were more likely to engage in a range of health-promoting behaviors compared to their racial/ethnic minority counterparts during middle adulthood, although these differences were less pronounced in later life.[1] Notably, among adults aged 45-64 years, only English-proficient Latino respondents were significantly less likely to meet daily fruit and vegetables recommendations compared to Whites. Among adults aged greater than 65 years, both non-Hispanic Black and limited English-proficient Latino respondents had significantly lower odds of meeting recommended intake levels.[2] These findings are consistent with previous literature documenting lower fruit and vegetable consumption among Black adults relative to Whites.[6] These findings also suggest that acculturation, including English language proficiency, may impact the dietary behaviors of non-White Hispanic adults.

Adolescent Dietary Behavior and the Role of School-Based Interventions

Obesity represents the second leading cause of preventable death and is a key contributor to chronic diseases such as cardiovascular disease and cancer in the United States.[7] Over recent decades, obesity prevalence has risen sharply, particularly among youth. Rates have tripled among children age 6-11 years and doubled among adolescents aged 12-19 years.[7] Overweight children are more likely to become overweight in adulthood, placing them at elevated risk for future morbidity and mortality due to chronic disease. One contributor to this trend is the increasing consumption of food prepared away from home, which has been associated with higher intake of empty calories from sugar-sweetened beverages, elevated saturated fat consumption, and increased sodium intake.[8] Concurrently, this dietary pattern is linked to reduced intake of nutrient-rich foods, including fruits, vegetables, and fiber.[8]

Adolescents from low socioeconomic status (SES) backgrounds are particularly vulnerable to suboptimal dietary habits, with studies consistently showing lower consumption of fruits and vegetables and greater intake of refined sugars and fats compared to peers from higher SES backgrounds. Low SES is also associated with increased morbidity, including hypertension, osteoarthritis, and asthma, and higher mortality due to chronic diseases such as cardiovascular disease and cancer.[9]

Fahlman et al. conducted one of the first studies to examine dietary behaviors, nutritional knowledge, and self-efficacy among a large cohort of non-Hispanic Black students from low SES backgrounds compared to non-Hispanic White students from higher SES backgrounds.[10] The findings revealed significant disparities across all domains, showing that non-Hispanic Black Students from low SES backgrounds demonstrated

Table 1. Dietary Behaviors and Knowledge and Knowledge by SES and Race[10]

Variable	Black Students (Low SES)	White Students (High SES)	p-Value
Daily fruit intake	Lower	Higher	<0.001
Daily vegetable intake	Lower	Higher	<0.001
Empty calorie consumption	Higher	Lower	<0.001
Knowledge of dietary guidelines	Lower	Higher	<0.001
Belief in ability to eat healthfully	Lower	Higher	<0.001
Confidence in eating healthy at fast-food	Lower	Higher	<0.001

Table 2. Impact of Nutrition Education Programs on Dietary Knowledge and Self-Efficacy

Study	Population	Intervention Details	Outcome
Fahlman et al.[14]	Black middle school students	8-session program	Increase fruit/vegetable intake, increase confidence in healthy choices
Auld et al.[15]	Hispanic students (K-12)	16 weekly lessons	Increase confidence to eat 5+ servings of fruits/vegetables per day
Lytle et al.[13,16]	Diverse student populations	Year-long school-based intervention	Decrease total fat/saturated fat intake, increase nutrition knowledge

markedly poorer dietary behaviors (Table 1).[10] Several factors may contribute to these disparities, including limited access to healthy foods, financial constraints, and reduced exposure to nutrition education.[10] Notably, lower SES families often reside in neighborhoods with a high density of fast-food restaurants and few grocery stores offering affordable, fresh produce.[10]

Nutritional knowledge is a modifiable factor that strongly influences adolescent dietary behaviors. Fahlman et al. found that non-Hispanic Black students from low SES backgrounds were less knowledgeable about basic nutritional guidelines (Table 1).[10,11] Self-efficacy, the belief in one's ability to perform a specific behavior, is another key determinant of health behavior. It was reported that non-Hispanic Black students of low SES were less confident in their ability to adopt healthy eating behaviors (Table 1).[10] However, self-efficacy, like knowledge, can be improved through structured interventions. School-based nutrition education programs have demonstrated efficacy in increasing knowledge across diverse student populations and have shown improvement in students' overall dietary self-efficacy (Table 2).[12-15]

Although changing actual dietary behavior is more complex than improving knowledge or self-efficacy, multiple school-based programs have demonstrated meaningful behavioral change. Studies found reductions in saturated and total fat intake after a year-long intervention, with benefits observed across all racial groups (Table 2).[16] Increased fruit and vegetable intake among elementary and middle school students following shorter, curriculum-based interventions have also been reported.[12-14]

Dietary Intake of Children in the United States Participating in WIC

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) represents a critical opportunity to improve access to nutritious foods in low-income households and to mitigate diet-related health disparities.[17] WIC food packages include provisions for grains, fruits, and vegetables, dairy and protein sources. Studies have identified nutrient inadequacies and excesses linked to adverse health outcomes in WIC populations, informing subsequent revisions to the WIC food package.[18,19] However, these reviews rarely addressed racial and ethnic disparities.

Zimmer et al. analyzed data from national

Table 3. Racial/Ethnic Differences in Nutrient Intake Among Children Participating in WIC (NHANES 2011–2014)[17]

Nutrient	Hispanic vs Non-Hispanic White	Non-Hispanic Black vs Non-Hispanic White	Notes
Fiber	Higher (p=0.026)	—	Hispanic children had greater fiber intake
Potassium	Higher (p=0.038)	—	Hispanic children had greater potassium intake
Calcium	—	Lower (p=0.009)	Non-Hispanic Black children had lower intake
Vitamin D	—	Lower (p=0.012)	Non-Hispanic Black children had lower intake
Sodium	—	Higher (p=0.006)	Non-Hispanic Black children had higher intake
Saturated Fat	—	Lower (p=0.0016)	Non-Hispanic Black children had lower intake

databases to assess differences in nutrient and food group intake among WIC participants by race/ethnicity.[17] In this nationally representative cohort of WIC-participating children, significant racial and ethnic disparities in nutrient intake were observed. Compared to non-Hispanic White children, Hispanic children had diets with lower energy density and more favorable nutrient profiles (including higher intake of fiber and potassium) (Table 3).[17] In contrast, non-Hispanic Black children exhibited poorer nutrient intake profiles (except for higher intake of sodium), compared to their non-Hispanic White counterparts.[17] These disparities are concerning given the well-established link between high sodium intake and hypertension, which disproportionately impacts the non-Hispanic Black population.[20] Notably, non-Hispanic Black children reported lower saturated fat intake, representing one area of relative dietary advantage (Table 3).[17] Despite these differences, mean nutrient intakes among WIC-participating children across all racial and ethnic groups fell short of several dietary recommendations.[17]

Analysis of food group intake revealed additional disparities. non-Hispanic Black children consumed significantly less dairy compared to non-Hispanic White children, a finding that may be partially explained by higher reported rates of lactose intolerance among Black Americans.[17,21] Total protein consumption was higher among both non-Hispanic Black and Hispanic children compared to non-Hispanic White children.[17] Across all racial and ethnic groups, mean intakes for key food groups such as seafood, total vegetables, whole grains, nuts and seeds, total dairy, and legumes were below recommended levels when converted to a daily intake basis.[17, 22]

Zimmer et al. emphasized the potential for WIC nutrition education efforts to address these disparities. For example, promoting the use of lactose-free alternatives, such as fortified non-dairy yogurts and cheeses, could help improve dairy intake and related nutrient deficiencies among non-Hispanic Black children.[17] Future WIC interventions should integrate food package changes, nutrition education, and equity-focused strategies to reduce racial disparities and overall, to improve nutrition health.[17]

Nutrient Deficiencies and the Contribution of Dietary Supplements in Racial and Ethnic Population Subgroups

Adequate intake of essential nutrients is critical for maintaining optimal health. Nevertheless, many Americans fall short of meeting the recommended nutrient intake levels. Dietary supplement use has been shown to increase overall nutrient intake and reduce the prevalence of nutrient inadequacy.[23,24] The *Dietary Guidelines for Americans 2015-2020* (DGA) recommend a dietary pattern rich in nutrient-dense foods, and in some cases, the use of fortified foods and dietary supplements to help achieve recommended intakes.[25] The *Dietary Guidelines* identify potassium, dietary fiber, choline, magnesium, calcium, iron (for certain age/gender groups), and vitamins A, D, E, and

C as "under consumed nutrients." Vitamin D, calcium, potassium, and fiber are further classified as "nutrients of public health concern" due to their association with increased chronic disease risk when underconsumed.[21] Dietary supplement use has risen over time in the United States, with approximately 50% of adults reporting supplement use, and two-thirds of users reporting intake of multivitamin-multimineral supplements.[22,24]

Nutrient deficiencies have been associated with increased risks of adverse health outcomes, including cardiovascular disease, stroke, cognitive impairment, certain cancers, visual disorders, and poor bone health. Recent analyses of the National Health and Nutrition Examination Survey (NHANES) 2009-2012 data revealed a range of micronutrient inadequacies among U.S. racial and ethnic groups.[26] Differences in key nutrient consumption may contribute to disparities in diet-related chronic diseases observed among racial/ethnic groups.

Blumberg et al. highlighted significant racial/ethnic differences in supplement use, with non-Hispanic Whites reporting higher rates of supplement use compared to other racial/ethnic groups.[26,27] These findings may contribute to higher overall nutrient intake and a lower prevalence of nutrient inadequacy among non-Hispanic Whites. The usual intakes of DGA-identified under consumed nutrients varied significantly across racial/ethnic groups, with observed mean intake differences favoring non-Hispanic Whites in all key nutrients (Table 4).[26] Moreover, the proportion of individuals with intakes below the Estimated Average Requirement (EAR) and prevalence of inadequacy was significantly lower among non-Hispanic Whites in almost all key nutrients compared to other racial/ethnic groups.[26]

These findings are consistent with previous studies that demonstrated significantly lower intakes of several under consumed and public health concern nutrients among non-Hispanic Black and Hispanic populations compared to non-Hispanic Whites.[27] Lower intakes of these nutrients may contribute to the disparities in diet-related chronic disease observed among minority populations.[28,29]

Cultural and Demographic Influence on Supplement Use Among Minority Women

Women of African American, Hispanic, Asian, Pacific Islander, Native American, and Alaskan Native descent represent approximately 29% of the female population in the United States; however, they continue to experience disproportionately greater health burdens compared with non-Hispanic White women.[30] For example, regular use of multivitamin supplements has been associated with a reduced risk of congenital birth defects, coronary artery disease, colon cancer, and breast cancer, particularly among individuals who consume alcohol.[30] Despite these benefits, studies identified that supplement use is most prevalent among older, well-educated, higher-income, non-Hispanic White women, particularly those residing in the western United States.[30,31] This demographic trend highlights an important disparity: women who might benefit the most from supplementation are often those least likely to use these products.

Research from iron and folic acid supplementation programs in developing countries suggests that diverse cultural practices, attitudes, and beliefs influence supplement use behaviors.[30] However, in the United States, there is a paucity of literature exploring how cultural and ethnic factors shape supplement use patterns. Jasti et al. sought to address this knowledge gap by investigating supplement use behaviors among women of various ethnic backgrounds.[30] Studies also examined health knowledge and attitudes among female supplement users. It was noted that a significantly higher proportion of White women reported supplement use compared to women of different racial/ethnic groups (Table 5).[32] In contrast, women from minority backgrounds had poorer health knowledge and attitudes about dietary supplementation.[32]

Ethnographic studies on iron and folic acid supplementation programs among women of reproductive age in developing countries offer valuable insights.[30] For example, in Malawi, Coca-Cola was commonly believed to "increase blood" and was often preferred over iron tablets despite its higher cost.[33] Additionally, fears that

Table 4. Differences in Nutrient Inadequacy Across Racial and Ethnic Groups (NHANES 2009–2012)[26]

Nutrient	Greatest Prevalence of Inadequacy	Lowest Prevalence of Inadequacy	Range of Differences in Usual Intake (%)
Calcium	Hispanic, NH-Black	NH-White	8–20%
Iron	Hispanic	NH-White	11–21%
Vitamin A	NH-Black	NH-White	34–55%
Vitamin C	NH-Black	NH-White	42–114%
Vitamin D	NH-Black	NH-White	82–218%
Vitamin E	Hispanic, NH-Black	NH-White	129–236%
Magnesium	Hispanic, NH-Black	NH-White	14–35% (lower prevalence)
Vitamin K	NH-Black, Hispanic	NH-White	Not quantified, but higher intake in NH-Whites

Table 5. Health Knowledge and Attitudes Among Female Supplement Users[32]

Characteristic	Non-Hispanic White Women	Women of Other Racial/Ethnic Groups
Reported supplement use	Significantly higher	Lower
Chronic disease diagnosis among users	More likely	Less likely
Belief that diet influences disease risk	More likely	Less likely
Belief that weight is modifiable	More likely	Less likely – often viewed as unmodifiable
Adoption of health-promoting behaviors	More proactive	Less proactive

iron tablets could cause "too much blood" and activate dormant illnesses were prevalent.[33] In Indonesia and Honduras, women expressed concerns that iron tablets could lead to weight gain or fetal deformities.[34] In India, symptoms such as fatigue, weakness, and dizziness were often normalized as part of a typical pregnancy, delaying recognition and treatment of anemia.[35] These findings underscore the powerful influence of cultural beliefs on health behaviors and highlight the importance of culturally sensitive public health messaging.

Acculturation and Dietary Patterns

In the United States, low SES is associated with poor child health outcomes—including impaired growth and development. Hispanic families, for instance, are disproportionately affected by poverty compared to non-Hispanic white families (18.5% and 5.3%, respectively).[36] This discrepancy may, in part, be explained by acculturation. Acculturation is a complex, long-term process in which individuals adopt and modify cultural values, norms, and behaviors, including those related to diet and lifestyle. The degree of linguistic, social, cultural, and economic assimilation among immigrant parents shapes their children's acculturation experience and, consequently, their health and well-being. Importantly, acculturation-related changes have been linked to increased risks of obesity and chronic disease due to altered eating patterns—such as higher caloric intake, more frequent snacking, and reduced physical activity.[37]

Mazur et al. demonstrated that parental language use, a proxy for acculturation, was associated with differences in dietary intake. Specifically, exclusive use of Spanish correlated with variations of energy, protein, sodium, and folate consumption, as well as percentages of energy derived from fat and saturated fat.[38] Although not significant for all indicators, patterns consistently revealed that food insecurity decreased with lower acculturation (odds ratio [OR]: 0.4; 95% CI: 0.2, 0.7 for adult meal size reduction) but increased with poverty (OR: 5.9 [3.0, 11.7] and 5.4 [2.2, 13.4] for reduced child

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meal size).[38] These findings underscore that both acculturation and economic hardship play crucial roles in shaping children's diets and household food insecurity.

Food Insecurity in Neighborhood Food Environments

Food insecurity and limited access to affordable, nutritious foods are strongly linked to poor diet quality and elevated risks of cardiovascular disease, diabetes, and certain cancers.[39] Populations with lower SES and racial or ethnic minority groups face disproportionately high rates of food insecurity and are more likely to reside in under-resourced food environments.[40] Approximately 13.5 million people in the United States live in areas with limited access to supermarkets or large grocery stores, restricting their ability to purchase fresh, healthy foods.

Recent longitudinal analyses have shown that higher diet quality correlates with greater proximity to and density of food stores, neighborhood SES, and perceptions of healthy food environment. These associations are even stronger among racial and ethnic minority populations.[41] Moreover, studies have found that residing in neighborhoods with limited grocery access and high fast-food density is associated with increased risks of hypertension, cardiovascular diseases, diabetes, and lower cancer

Table 6. Acculturation and Socioeconomic Influence on Nutritional Disparities

Domain	Key Findings
Overview	Nutritional disparities across racial, ethnic, and socioeconomic groups stem from both cultural and structural factors.
Socioeconomic Status	Low income is linked to poorer child health; Hispanic families experience higher poverty (18.5%) than non-Hispanic White families (5.3%).
Acculturation	The process of adopting new cultural norms influences diet and lifestyle behaviors. Higher acculturation is associated with increased caloric intake, snacking, and reduced physical activity.
Parental Language and Diet	Language use reflects acculturation level; exclusive Spanish use corresponds with distinct nutrient patterns (energy, sodium, folate, fat composition).
Food Sufficiency	Lower acculturation is associated with less food insufficiency, while poverty substantially increases food insecurity and meal reduction.
Public Health Implications	Interventions should integrate culturally responsive education with strategies to improve economic stability.

Table 7. Summary of Ultra-Processed Food Consumption and Related Disparities in the United States

Domain	Key Findings
Definition	Industrially formulated, ready-to-eat products combining food-derived ingredients and additives to enhance taste, convenience, and shelf life.
Prevalence	About 43% of packaged food and beverage purchases in the U.S. are ultra-processed.
Socioeconomic Patterns	Lower income and education groups purchase the highest proportion of UPFs; higher income and education groups purchase the least.
Dietary Trends	Lower-income households consume more UPFs and fewer fruits and vegetables; higher-income households show healthier purchasing patterns.
Health Effects	High UPF intake is linked to increased risk of cardiovascular disease, cancer, obesity, and all-cause mortality.
Hypertension Risk	Greater UPF intake (by calories or grams) increases hypertension risk. Associations differ by race — stronger among Black adults when measured by grams, suggesting higher total UPF intake.
Mediating Factors	Body mass index and dietary quality partly explain UPF–hypertension relationships, varying by racial group.
Social Determinants	UPFs' low cost, convenience, and energy density make them prevalent in economically constrained settings; structural inequities further reinforce these consumption patterns.

survival.[42]

Despite decades of research, substantial gaps remain in our understanding of the pathways linking food insecurity and neighborhood food environments to racial, ethnic, and socioeconomic disparities in health outcomes. Social determinants of health, such as food insecurity and access to affordable, nutritious food are themselves shaped by structural determinants—policies, systems, and distributions of resources that reflect structural racism and socioeconomic inequity. These structural factors interact with cultural norms, traditions, and values to shape dietary behavior.[43]

Ultra-Processed Foods, Socioeconomic Disparities, and Nutrition-Related Chronic Disease in the United States

American diets are increasingly dominated by ultra-processed foods (UPFs). UPFs are defined as ready-to-eat industrial products formulated from food-derived ingredients combined with additives through multiple industrial processes, designed primarily to enhance palatability, convenience, and profitability.[44] Mounting evidence links UPF consumption to the global rise in diet-related chronic diseases—including cardiovascular disease, cancer, obesity, and all-cause mortality.[45]

Racial, ethnic, and income disparities in obesity and nutrition-related chronic disease are well documented in the United States. Differences in dietary intake and purchasing patterns across demographic groups may contribute substantially to these inequities (Table 7).[44] Dunford et al. reported that 43% of barcoded packaged foods and beverage purchases from U.S. grocery stores in 2020 were derived from UPF.[44] When stratified by SES and educational status, the lowest income and education groups (high school) had the highest proportion of purchases from UPFs, whereas the highest income and education groups (college degree) had the lowest.[44] These findings align with prior research showing that lower-income households consume a greater proportion of UPFs and fewer nutrient-dense foods such as fruits and vegetables, while higher-income households demonstrate healthier purchasing behaviors, including fewer processed meats and sugar-sweetened beverages.[46]

Oladele et al. further demonstrated that diets with a greater proportion of calories and grams from UPFs are associated with increased risk of incident hypertension.[47] Notably, race-stratified analyses revealed differences in the strength and nature of this association among Black and White adults. When UPF intake was expressed as percent kilocalories, associations were statistically significant only among White adults.[47] In contrast, when UPF was expressed as percent grams, strong positive associations were observed among Black adults.[47] These findings suggest that the greater hypertension risk observed in Black adults when measured by grams may reflect higher total UPF consumption, including low-calorie UPFs, compared with white adults.[47] Post hoc analyses confirmed higher mean UPF intake (in grams) among Black adults. The study also identified differential mediation by body mass index (BMI) and dietary quality in the relationship between UPF intake and incident hypertension across racial groups.[47]

Beyond biological mechanisms, social and structural determinants play a crucial role in shaping UPF consumption patterns. UPFs are typically inexpensive, shelf-stable, ready-to-eat, and energy-dense—characteristics that make them accessible and appealing to consumers, particularly in economically constrained settings.[47] Structural inequities in housing, employment, and access to health-promoting resources further exacerbate these patterns. Limited access to affordable, high-quality foods and greater exposure to calorie-dense, ultra-processed options contribute to persistent nutritional disparities.[48]

Strategies to Bridge Gaps

Practical strategies to bridge these gaps include integrating culturally sensitive nutrition education and counseling into clinical practice, supporting community-based and school-based dietary interventions, promoting policy changes to expand access to healthy foods, and encouraging appropriate use of dietary supplements where food-based strategies are insufficient. Gastroenterologists and other healthcare providers must recognize the role of structural determinants in shaping dietary behaviors and proactively engage with patients from diverse backgrounds to deliver equitable, patient-centered nutritional care (See Box 1). Future research should prioritize interventions that

not only improve dietary intake across racial and ethnic groups but also address the broader systemic factors that perpetuate nutritional inequities.

CONCLUSION

Racial and ethnic disparities in diet quality, micronutrient intake, and dietary supplement use are well-documented contributors to health inequities across the lifespan. These disparities are rooted in complex socioeconomic, structural, and cultural factors that influence access to nutritious foods, dietary behaviors, and health outcomes. Middle-aged and older adults from minority groups face disproportionate burdens of diet-related chronic disease, while adolescents from low-income, minority backgrounds often experience early nutritional deficits that set the stage for lifelong health risks. Participation in nutrition assistance programs like WIC offers critical opportunities to address disparities; however, gaps in nutrient

Box 1. Practical Guidelines for Clinicians — Addressing Racial and Ethnic Disparities in Diet and Nutrition

1. Conduct Culturally Informed Nutritional Assessments

- Include cultural food practices and preparation methods in dietary histories.
- Screen for common micronutrient deficiencies more prevalent in specific populations.

2. Identify Structural Barriers to Healthy Eating

- Screen for food insecurity using tools like the Hunger Vital Sign™.
- Be aware of patients' access limitations due to cost, transportation, or neighborhood food environments.
- Refer to local resources (e.g., SNAP, WIC, food pantries).

3. Deliver Tailored Nutrition Education and Counseling

- Customize guidance to reflect cultural preferences and socioeconomic realities.
- Promote healthy adaptations of traditional meals.
- Use interpreters and translated materials as needed.

4. Promote Appropriate Use of Nutritional Supplements

- Recommend supplements only when clinically indicated.
- Encourage a food-first approach, considering patients' access to nutrient-rich foods.

5. Engage with Community and Institutional Resources

- Partner with local organizations to support community-based nutrition programs.
- Advocate for integrated dietitian services within GI practices.

6. Advocate for Policy-Level Change

- Support policies that improve food access, restrict targeted marketing of unhealthy foods, and expand coverage for nutritional counseling.

7. Build Trust Through Culturally Responsive Care

- Acknowledge systemic contributors to mistrust.
- Prioritize shared decision-making and respect for cultural values.

8. Commit to Lifelong Learning and Research

- Stay current on nutrition disparities research.
- Participate in or support research that explores nutrition-related outcomes across diverse groups.

intake persist and vary by race and ethnicity. Furthermore, differences in dietary supplement use amplify existing disparities in nutrient adequacy, underscoring the need for tailored interventions. ■

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