

Bridging the Gap: Investigating Disparities in Access to GLP-1 Receptor Agonists for Obesity Management in Rural Areas

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Introduction

Obesity remains one of the most pressing public health challenges in the United States, as nearly 75% of the adult population is either overweight or obese (Ng et al, 2024). Glucagon-like peptide-1 receptor agonists (GLP-1 RAs) represent a major advancement in obesity management. These medications not only promote significant weight loss, but have also been shown to reduce the risk of type 2 diabetes and cardiovascular events (Wadden et al, 2023) as well as providing other benefits (Figure 1). A study using information from the National Health and Nutrition Examination Survey revealed that even though around 50% of United States adults met eligible criteria, only around 2% of these candidates took a GLP-1 RA for weight loss (Lu et al, 2022).

Rural areas of America are especially affected, as the prevalence of obesity is approximately 6.2 times higher in rural America than in urban areas (Okobi et al, 2023). Many patients also have comorbidities, such as type 2 diabetes or coronary artery disease, which increase the risks of complications and mortality. Beyond treating existing conditions, GLP-1 RAs are valuable for preventive care, and research continues to show their beneficial effects on a range of other diseases. In rural regions, disease burden is already high, and elevated poverty rates and fewer nearby healthcare facilities increases difficulty for patients to access care for weight management. By identifying treatment gaps and conducting further research into this disparity, interventions can be targeted to improve equitable access to these medications for those most impacted by obesity and its complications.

Benefits of GLP-1 Receptor Agonist Therapy	
↓ body weight	↑ satiety
↓ gastric emptying	↑ glucose uptake
↓ appetite	↑ insulin secretion
↓ insulin resistance	↑ lipolysis
↓ blood pressure	↑ sodium excretion
↓ lipid synthesis	↑ myocardial contractility
↓ oxidative stress	↑ cardioprotection
↓ inflammation	↑ neuroprotection

Figure 1: Some of the Therapeutic Effects of GLP-1 RAs

Discussion

The pathophysiology and causes of excess fat accumulation are complex, involving interactions between multiple body systems. Obesity increases the risk of developing diseases including type 2 diabetes, hypertension, and cardiovascular disease. Although lifestyle modification is the first line treatment for obesity, many people struggle to lose weight with diet and exercise changes alone due to genetic, hormonal, and environmental factors. Many recent studies indicate that supplementing lifestyle change with a GLP-1 RA in eligible patients is safe and effective. Currently, liraglutide, semaglutide, and tirzepatide are GLP-1 RAs that are FDA approved for weight loss (Reiss et al, 2023). However, people living in rural area have many challenges that make accessing this medication more difficult. This disparity is driven by multiple factors, as underserved populations often face both geographic and socioeconomic barriers (Figure 2).

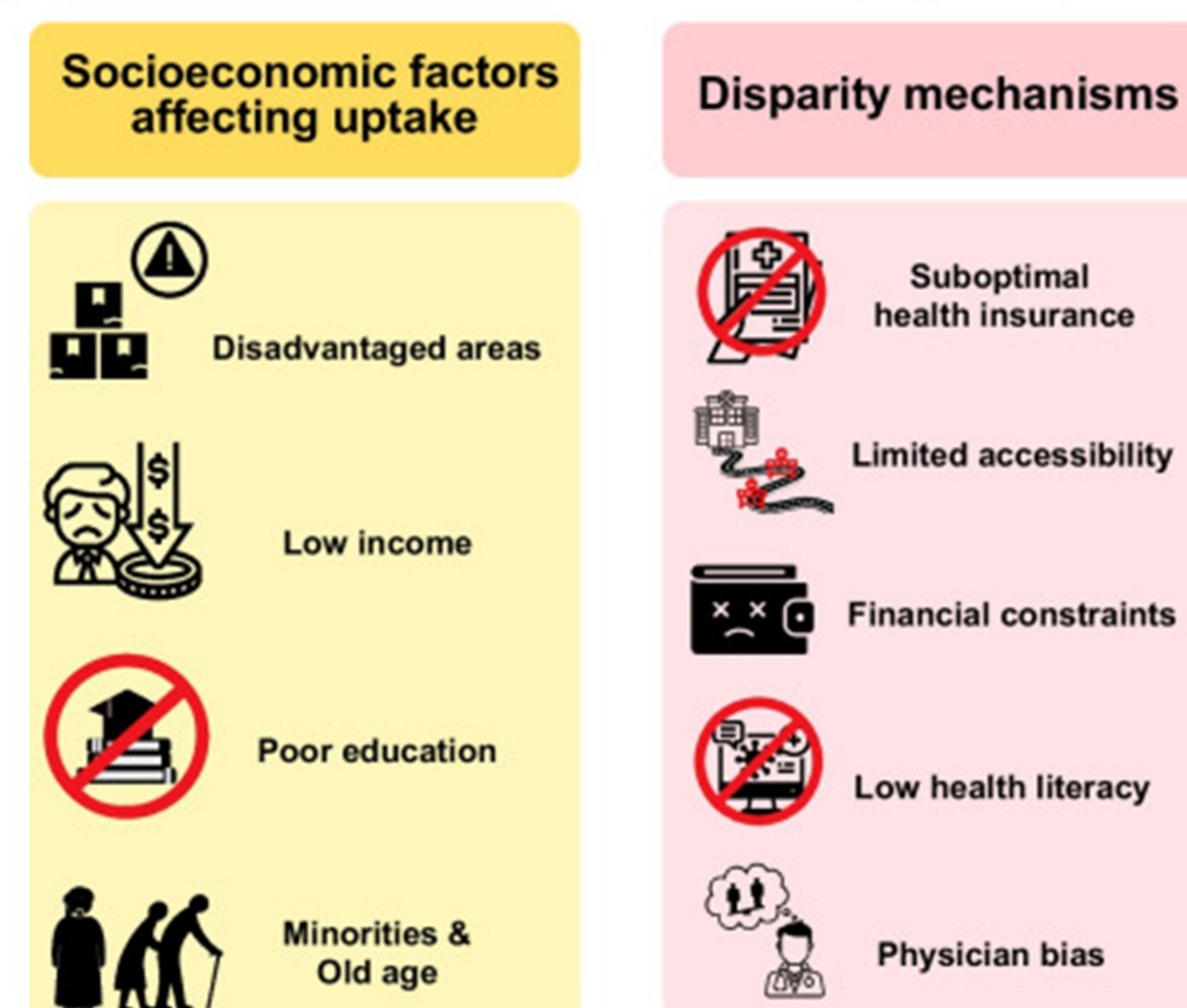


Figure 2: Examples of contributors to the disparity in GLP-1 RA access in the rural US (Karagiannis et al, 2023)

The cost of these medications plays a major role, especially when patients are uninsured or have limited coverage. Geographic isolation, lack of transportation, and lower health literacy make it difficult for some rural patients to seek care, follow up, or access a pharmacy. Providers also contribute to gaps in GLP-1 RA access, often due to limited familiarity with newer obesity treatments or biases regarding patient adherence, cost, or motivation (Karagiannis et al, 2023).

Conclusion

GLP-1 receptor agonists represent a breakthrough in the treatment of obesity, with the potential not only to support weight loss but also to reduce the risk of numerous chronic diseases such as type 2 diabetes, cardiovascular disease, and potentially even certain cancers. Yet, this progress will fall short unless systemic barriers to access are addressed, particularly in rural communities where obesity rates are highest and healthcare resources are most limited. Patients in these areas face compounding challenges, and a multifaceted approach will be needed to begin and close the gaps (Figure 3).



Figure 3: Potential interventions to work towards making GLP-1 RAs more obtainable for rural patients (Karagiannis et al, 2023)

Targeted research must continue to evaluate both the clinical benefits of GLP-1 RAs and the specific barriers faced by underserved populations. Primary care physicians should be well-informed and confident in appropriately prescribing these medications, as well as prepared to advocate on behalf of their patients. Importantly, socioeconomic barriers need to be addressed. Policy advocacy is needed to improve insurance coverage and healthcare infrastructure with a goal of closing the gap in obesity care and reducing the burden of preventable disease and mortality

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