

Review of: "The Rural-Urban Divide: Insights from Immuno-Genetic Profiles and Implications for Health"

Shokhan M. Al-Barzinji¹

1 University of Anbar, Iraq

Potential competing interests: No potential competing interests to declare.

This study contributes valuable insights into the genetic and immunological differences between rural and urban populations and their implications for health. It underscores the complex interplay between genetics, environment, and lifestyle in shaping disease patterns and highlights the need for targeted health interventions in developing countries. While the study has some limitations, particularly regarding sample size and the focus on mRNA expression, it offers important perspectives on the rural-urban health divide and sets the stage for further research into the molecular mechanisms underlying these disparities.

Suggestions for Improvement

- 1. The study could be strengthened by including protein-level data, not just mRNA expression, to better understand the functional consequences of gene expression in the immune system.
- 2. Future studies should consider controlling for socioeconomic status, healthcare access, and lifestyle factors when examining rural-urban health disparities. This would provide a clearer picture of how genetic and environmental factors interact to influence health.
- 3. A deeper investigation into why chronic diseases are less prevalent in rural populations and how genetic and environmental factors contribute to this could provide valuable insights for disease prevention strategies.