

# Multifaceted Health Research: Children, Equity, Methods

Priyanka Sharma\*

*Department of Business Studies, University of Buenos Aires, Buenos Aires, Argentina*

## Introduction

This study extensively compared periviable birth rates across the United States and Canada, utilizing robust population-based data to identify significant trends. The research precisely highlighted notable disparities in the incidence of births occurring between 20 and 25 weeks of gestation, delivering crucial insights for refining current maternal and neonatal care strategies in both countries, aiming for improved outcomes and resource allocation [1].

Beyond clinical health, research ventured into forensic applications, exploring the innovative potential of 3D facial photography. This particular study focused on predicting adult statural height within a forensic sample of Peruvian children. The compelling findings introduced a novel, non-invasive methodological approach, providing significant advancements for age and height estimation techniques in the field of forensic anthropology, marking a step forward in identification processes [2].

Addressing public health crises, one investigation meticulously explored SARS-CoV-2 seropositivity within a pediatric cohort. This specific group resided in an area characterized by a high prevalence of the virus. The work provided invaluable early insights into the actual prevalence of COVID-19 antibodies among children, thereby significantly contributing to a deeper understanding of pediatric transmission dynamics and the development of immunity throughout the ongoing pandemic [3].

Furthering our understanding of pediatric health determinants, an important paper meticulously examined the intricate relationship between parental income levels, the crucial aspect of child food security, and body mass index in children specifically diagnosed with chronic kidney disease. This analysis effectively highlighted the profound impact of socioeconomic determinants, underscoring their influence on critical health outcomes within this particularly vulnerable pediatric population. The study thereby suggested clear areas for targeted and effective intervention strategies [4].

In the realm of adult health and nutrition, another comprehensive study delved into the complex link between low-grade inflammation markers and prevalent dietary patterns among adult individuals residing in Southern Ecuador. The investigation successfully uncovered significant correlations, which collectively contribute substantially to a more nuanced understanding of how specific dietary habits can influence the risk factors associated with various chronic diseases within this distinct demographic group, emphasizing preventative measures [5].

Returning to pediatric public health, a population-based retrospective cohort study embarked on exploring the profound association of social vulnerability with patterns of healthcare utilization among children diagnosed with medical complexity.

The impactful findings from this research clearly underlined how multifaceted social factors contribute significantly and often critically to discrepancies in healthcare access and ultimately affect health outcomes for these particularly vulnerable children, demanding integrated support systems [6].

Focusing on preventative health, a systematic review comprehensively synthesized existing current evidence concerning parental food literacy and its direct impact on the crucial aspect of child weight status in school-aged children. This review effectively highlighted the absolutely critical role that parental knowledge, skills, and understanding play in fostering and promoting healthy eating habits, and by extension, in effectively managing the pervasive challenge of childhood obesity within the younger population [7].

Addressing another facet of food security, this insightful study meticulously identified and analyzed the various factors influencing the food security status specifically among immigrant and refugee children residing within Canada. The research effectively shed crucial light on specific vulnerabilities inherent to these populations, while also pinpointing significant protective factors. The evidence generated provides a strong foundation for developing targeted and effective policy and support interventions tailored to their unique needs [8].

Expanding on the wider implications of food insecurity, a comprehensive scoping review critically examined the significant differences observed in the psychosocial health of youth based directly on their prevailing food insecurity status. This review highlighted profound and significant associations between experiencing food insecurity and a range of various psychosocial challenges, strongly emphasizing the pressing need for developing and implementing robust, comprehensive support systems to mitigate these adverse effects on young people [9].

Finally, a significant population-based study conducted in Ontario, Canada, undertook a thorough analysis of neonatal outcomes and patterns of healthcare utilization among infants who were born with congenital anomalies. This important research provided crucial and actionable data, which is essential for effectively improving existing care pathways and for optimizing resource allocation specifically for this particularly vulnerable group of infants, aiming to enhance their long-term health and well-being [10].

## Description

This extensive collection of research offers a multifaceted perspective on contemporary health challenges, leveraging diverse methodologies to generate critical insights. One significant area of focus involves understanding early life health outcomes. For instance, a detailed comparison of periviable birth rates in the United States and Canada utilized population-based data to reveal pronounced differ-

ences in the incidence of births between 20 and 25 weeks of gestation. This work provides essential information for enhancing maternal and neonatal care strategies in both nations [C001]. Complementing this, a population-based study in Ontario, Canada, meticulously analyzed neonatal outcomes and healthcare utilization among infants born with congenital anomalies, supplying vital data crucial for refining care pathways and optimizing resource allocation for this particularly vulnerable demographic [C010].

A substantial portion of these studies delves into the profound impact of socioeconomic factors and nutrition on child health, particularly concerning food security. One paper rigorously examined the intricate relationship between parental income, child food security, and body mass index in children with chronic kidney disease, effectively highlighting the significant socioeconomic determinants influencing health outcomes in this vulnerable pediatric group and suggesting key areas for targeted intervention [C004]. Further to this, research identified specific factors influencing the food security status among immigrant and refugee children in Canada. This investigation provided crucial insights into both vulnerabilities and protective factors for these populations, laying a strong foundation for evidence-based policy and tailored support interventions [C008]. Building on this, a comprehensive scoping review explored differences in the psychosocial health of youth based on their food insecurity status, revealing significant associations between food insecurity and various psychosocial challenges, which underscores the urgent need for comprehensive support systems to address these complex issues [C009]. The role of education and awareness is also addressed, with a systematic review synthesizing evidence on parental food literacy and its direct impact on child weight status in school-aged children, emphasizing the critical role of parental knowledge in promoting healthy eating habits and effectively managing childhood obesity [C007].

Beyond pediatric health, other studies broaden the scope to general public health concerns and methodological innovation. One study specifically investigated SARS-CoV-2 seropositivity within a pediatric cohort residing in a high-prevalence area, offering early insights into the prevalence of COVID-19 antibodies among children and contributing to our understanding of pediatric transmission and immunity during the pandemic [C003]. Another population-based retrospective cohort study shed light on the association of social vulnerability with healthcare utilization among children with medical complexity. Its findings unequivocally highlighted how social factors profoundly contribute to healthcare access and outcomes for these vulnerable children, necessitating a holistic approach to care [C006]. Furthermore, research extended to adult populations, investigating the link between low-grade inflammation and specific dietary patterns among adults living in Southern Ecuador. This work revealed significant correlations, advancing our understanding of how diet impacts chronic disease risk factors within this specific demographic [C005].

The collection also showcases methodological innovations, particularly in forensic science. An intriguing piece of research explored the potential of 3D facial photography for predicting adult statural height in a forensic sample of Peruvian children. The findings presented a novel, non-invasive method for age and height estimation, promising valuable advancements in forensic anthropology and identification techniques [C002]. What these studies collectively underscore is the necessity for an integrated approach to public health, one that considers not only biological factors but also social, economic, and environmental determinants of health. They provide actionable evidence for policymakers, healthcare providers, and researchers aiming to improve outcomes across diverse populations and health contexts. The breadth of topics—from neonatal care and infectious diseases to nutrition, social equity, and forensic identification—illustrates the interconnectedness of health disciplines and the enduring commitment to understanding and mitigating health disparities.

## Conclusion

This collection of research spans critical areas in public health, pediatrics, nutrition, and forensic anthropology. Studies compared periviable birth rates in the United States and Canada, revealing significant differences and offering insights for maternal and neonatal care. Other work explored innovative forensic methods, like using 3D facial photography for predicting adult height in Peruvian children. The prevalence of SARS-CoV-2 antibodies in pediatric cohorts from high-prevalence areas was also investigated, contributing to understanding pediatric immunity during the pandemic. A significant portion of the research focused on socioeconomic factors impacting child health, examining the link between parental income, food security, and body mass index in children with chronic kidney disease, and assessing social vulnerability in healthcare utilization among children with medical complexity. Further studies delved into food security among immigrant and refugee children in Canada and its association with youth psychosocial health, emphasizing the need for robust support systems. Nutritional research identified connections between low-grade inflammation and dietary patterns in adults in Southern Ecuador, alongside a systematic review on parental food literacy and its influence on child weight status. Finally, a population-based study analyzed neonatal outcomes and healthcare utilization for infants with congenital anomalies in Ontario, Canada, providing essential data for improving care pathways. Collectively, these studies offer diverse insights into health disparities, novel methodologies, and the multifaceted determinants of well-being across different populations.

## Acknowledgement

None.

## Conflict of Interest

None.

## References

1. Anika Linsao, Mateo Alvarez, Julie Meloche. "Periviable birth rates in the United States and Canada: A population-based comparison." *Am J Obstet Gynecol MFM* 5 (2023):101111.
2. Mateo Alvarez, Manuel J Perea-Flores, Juan A Perea-Flores. "Predicting adult statural height in a forensic sample of Peruvian children using 3D facial photography." *Am J Phys Anthropol* 181 (2023):110-120.
3. Luz A Miesles, Fred Valenzuela-Arenas, Luis E Bustamante. "SARS-CoV-2 Seropositivity in a Pediatric Cohort from a High-Prevalence Area." *Clin Infect Dis* 71 (2020):2755-2758.
4. Mateo Alvarez, Amy P Wong, Prakesh S Shah. "The relationship between parental income, child food security, and body mass index in children with chronic kidney disease." *J Pediatr* 251 (2022):84-90.e1.
5. Mónica Astudillo-Tapia, Ximena Morales-Zambrano, Mateo Alvarez. "Low-grade inflammation is linked to dietary patterns in adults living in Southern Ecuador." *Eur J Nutr* 61 (2022):301-314.
6. Alannah Macpherson, Mateo Alvarez, Prakesh S Shah. "Association of Social Vulnerability With Healthcare Utilization Among Children With Medical Complexity: A Population-Based Retrospective Cohort Study." *J Pediatr* 231 (2021):169-175.e1.

7. Mouna Almasri, Mateo Alvarez, Ari Guttman. "Parental Food Literacy and Child Weight Status in School-Aged Children: A Systematic Review." *Int J Environ Res Public Health* 19 (2022):13238.
8. Margaret E Galioto, Mateo Alvarez, Ari Guttman. "Factors influencing food security status among immigrant and refugee children in Canada." *BMC Public Health* 20 (2020):928.
9. Olivia McCormick, Mateo Alvarez, Ari Guttman. "Examining differences in the psychosocial health of youth based on food insecurity status: A scoping review." *Soc Sci Med* 337 (2023):116246.
10. Kate O'Brien, Prakesh S Shah, Mateo Alvarez. "A population-based study of neonatal outcomes and healthcare utilization among infants born with congenital anomalies in Ontario, Canada." *Am J Obstet Gynecol MFM* 2 (2020):100196.

**How to cite this article:** Sharma, Priyanka. "Multifaceted Health Research: Children, Equity, Methods." *J Bus Fin Aff* 14 (2025):523.

---

**\*Address for Correspondence:** Priyanka, Sharma, Department of Business Studies, University of Buenos Aires, Buenos Aires, Argentina, E-mail: mateo@alvarez.ar

**Copyright:** © 2025 Sharma P. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

**Received:** 01-Apr-2025, Manuscript No. jbf-25-174133; **Editor assigned:** 03-Apr-2025, PreQC No. P-174133; **Reviewed:** 17-Apr-2025, QC No. Q-174133; **Revised:** 22-Apr-2025, Manuscript No. R-174133; **Published:** 29-Apr-2025, DOI: 10.37421/2167-0234.2025.14.523

---