Parental Vaccine Hesitancy in Children with Comorbidities: A Comparative Analysis

Manuela H. Gschwend, Jonathan Fix, and Matthew D. Rousculp

Novavax Inc., Gaithersburg, Maryland, USA

Contact: Manuela Gschwend
mgschwend@novavax.com

There is an observed higher prevalence of parental vaccine hesitancy among parents of children with chronic or immunocompromised conditions compared to parents of healthy children, with variations observed across different health conditions

Targeted interventions emphasizing enhanced healthcare provider communication and condition-specific, evidence-based information are essential to address parental concerns and improve vaccine uptake in these vulnerable pediatric populations

BACKGROUND

- Vaccine-preventable diseases are re-emerging due to a decline in vaccination rates[1–3]
- Parental vaccine hesitancy (PVH) is a key factor in this decline
- This is especially critical for **C**hildren with **C**hronic or **I**mmunocompromised **C**onditions (CCIC), who are at a higher risk of severe illness

OBJECTIVE

- This **targeted literature review** compares **PVH rates** between **parents of CCIC** and **parents of healthy children**

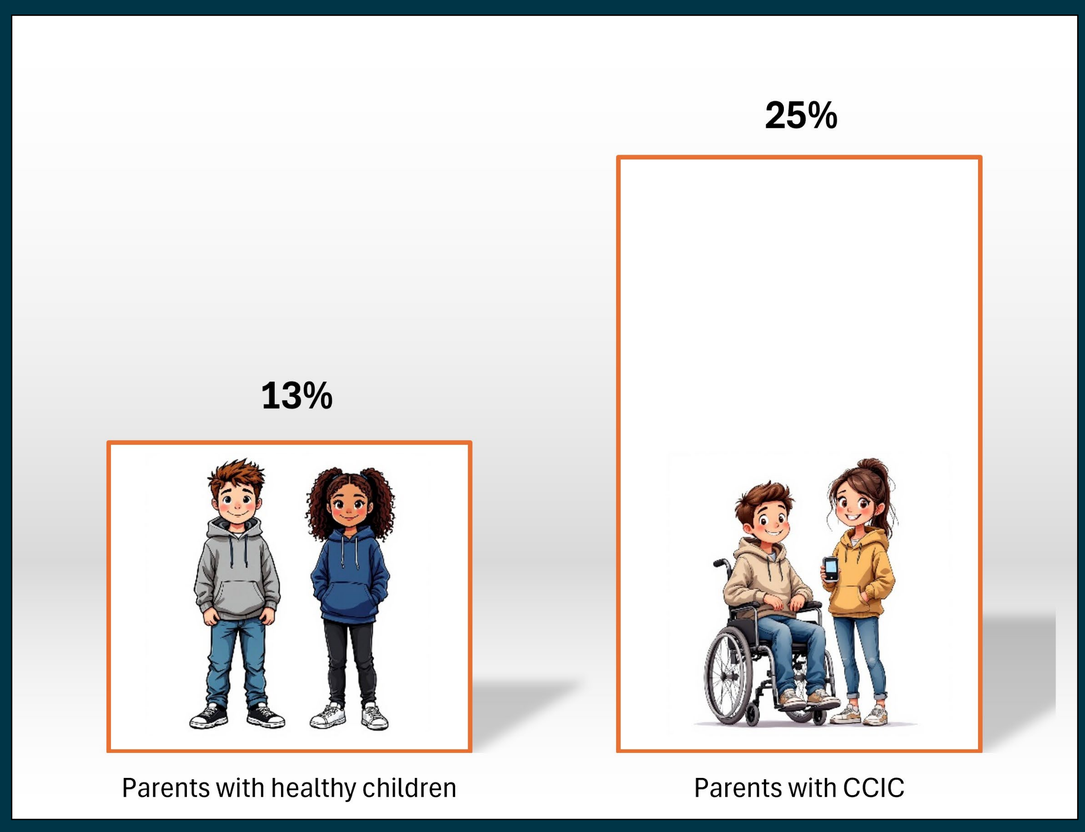
METHODS

Database searches up to May 2025	Key terms (and related variations)	CCIC conditions included in the analysis	Evaluation of parental attitudes toward vaccines
• Medline® • Embase®	• Vaccine hesitancy • Vaccine refusal • Vaccination hesitancy • Vaccine resistance • Parents • Caregivers • Parent • Caregiver • Adverse events (AEs) • Vaccine AEs • Vaccine Injury • Reactogenicity • Side effects • Personal experience • Lived experience • Prior experience • Vaccinate their children • Child vaccination • Pediatric vaccination • Vaccinating children	• Autism spectrum disorder (ASD) • Type 1 diabetes mellitus (T1DM) • Chronic liver diseases • Kidney diseases/hypertension • Cancer and bone marrow transplants • Multiple chronic conditions • Immunocompromised states	• The Parent Attitudes about Childhood Vaccines (PACV) scale • Qualitative in-depth interviews

RESULTS

- Among the 5 studies that provided comparative data, parents of CCIC exhibited a nearly 50% higher average rate of PVH than parents of healthy children [A–E]
- Stratified analyses revealed statistically significant elevations in PVH for specific conditions: [A,B]
  - Type 1 diabetes mellitus (OR 3.3), disability (OR 1.9), autism spectrum disorders (OR 1.8), immunocompromised (OR 1.7), and visual disturbances/blindness (OR 3.2)
- Across all 10 reviewed studies (including non-comparative designs), the overall weighted average prevalence of PVH in parents of CCIC was 25% versus 13% observed in parents of healthy children [A–J] (**Figure 1**)
- Frequently cited reasons for hesitancy were fear of potential AEs, concerns about vaccine ingredients, and perceived information deficits

Figure 1. Prevalence of PVH in parents of CCIC compared to parents of healthy children



Abbreviations: CCIC, children with chronic and immunocompromised conditions; PVH, parental vaccine hesitancy

REVIEWED STUDIES

A. Komurluoglu, A., et al., *BMC Public Health*, 2025. 25(1):1683. doi:10.1186/s12889-025-22797-y
B. Cag, Y., et al., *The Journal of Infection in Developing Countries*, 2022. 16(6):1081–1088. doi:10.3855/jidc.16085
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J. O'Neill, S.A., et al., *Vaccines* (Basel), 2024. 12:1407. doi:10.3390/vaccines12121407

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ADDITIONAL INFORMATION

Funding and Competing Interests: Study was funded by Novavax, Inc. MHG, MDR, and JF are employees of Novavax, Inc. and may hold the stock of Novavax, Inc.

Acknowledgements: Poster layout support was provided by Anar Murphy, PhD, CMPP, of Novavax, Inc.