So, what do we really know? A systematic review of the socio-behavioral factors influencing childhood vaccination intentions and uptake

**Judy Gichuki¹, Ben Ngoye¹ Donnie Mategula² Francis Wafula¹**

1. Strathmore University Business School, Institute of Healthcare Management
2. Malawi-Liverpool-Wellcome Trust Clinical Research Programme

**Background**
- Childhood vaccination uptake has been on the decline, with approximately 25 million children missing out on one or more vaccination doses in 2021.(1).
- To support immunization demand generation, there is a need to build on previous and emerging evidence on the drivers and barriers to immunization.
- This includes a re-examination of the socio-behavioral factors influencing vaccination to identify contextual and emerging factors that can inform demand creation interventions.

**Objectives**
This study provides a review of the behavioral and social factors influencing childhood vaccination intentions and uptake from a global perspective.

**Methods**
- The review includes quantitative studies that presented data on the association between social or behavioral factors and vaccination intentions or uptake in children five years of age or below.
- A comprehensive search of published studies from 1st January 2002 to 31st June 2022 was conducted in multiple databases.
- The risk of bias was assessed using the Newcastle-Ottawa quality assessment scale.
- An organizing framework based on the behavioral and social drivers of vaccination conceptual model (2) and behavioral theories was used to conduct a structured synthesis of the findings (Figure 1).

**Results**
- 82 studies are included in the review. Most of the included studies were conducted in North America (n=26) while 11 studies were from Sub-Saharan Africa. Majority of the included studies were assessed to be of fair quality (67%).
- There were notable limitations in the sampling procedures, outcome measurements and the reporting of results in several studies. The use of various measurement scales to assess similar constructs and outcomes across studies resulted in the heterogeneity of findings.
- Instrumental attitude factors that influenced vaccination intentions and uptake included behavioral beliefs, perceived disease risk, and vaccine safety concerns. Subjective norm elements included the role of injunctive and descriptive norms.
- Practical factors that moderated vaccination uptake included the ease of accessing services, availability, affordability, caregiver perceptions of their relationship with health providers and caregivers’ exposure to, influence from, and use of vaccination information.
- Emerging factors influencing vaccination uptake included gender-based factors such as spousal approval and the mother’s financial autonomy as well as the level of deliberation and decisional conflict factors.

**Conclusions**
- There were notable limitations in the quality of some of the identified studies, however the diversity of extracted themes highlights the complexity of relationships between social-behavioral factors and vaccination uptake that may be contributing to the decline in vaccination uptake.
- Contextual research is required to extend the geographical base of evidence, and to evaluate highly localized behavioral constructs and interventions.

**Acknowledgment**

**References**