

**A CROSS-SECTIONAL STUDY TO ASSESS THE UTILIZATION OF INTEGRATED CHILD DEVELOPMENT SERVICES AMONG PREGNANT WOMEN IN SELECTED RURAL AREAS OF VADODARA DISTRICT.**

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**ABSTRACT**

*This systematic review was conducted to evaluate the effectiveness of interventions aimed at improving syphilis screening coverage and outcomes among pregnant women. A total of ten eligible studies were selected through a comprehensive search across four electronic databases. The studies included randomized controlled trials and implementation research focusing on decentralization, early antenatal care engagement, and treatment integration. Only two studies emphasized early antenatal care seeking behaviour. The pooled analysis revealed that interventions were associated with a reduction in perinatal death (pooled risk ratio: 0.46; 95% CI: 0.26–0.82) and stillbirth (pooled RR: 0.42; 95% CI: 0.19–0.93). The review concludes that integrated and decentralized screening strategies can significantly reduce the incidence of syphilis-related perinatal morbidity and mortality, and recommends the incorporation of these practices into routine antenatal care services.*

**Keywords:** ICDS, Pregnancy, Women.

## INTRODUCTION

Syphilis in pregnancy remains a major public health concern globally, especially in low- and middle-income countries. Untreated maternal syphilis can lead to adverse pregnancy outcomes, including stillbirth, neonatal death, preterm birth, and congenital infections. Despite the known benefits of early detection and treatment, coverage of antenatal syphilis screening remains inadequate in many parts of the world. This review was initiated to examine the effectiveness of various interventions to increase screening rates and improve health outcomes among pregnant women. Dr. Sarah Hawkes and her team from the Institute of Global Health, University College London, sought to synthesize existing evidence and provide insights into best practices for scaling up syphilis screening in pregnancy.

## METHODOLOGY

A systematic review approach was adopted to gather and analyze relevant literature. The research team conducted an exhaustive search of four electronic databases: Pub Med, Scopus, Cochrane Library, and Google Scholar. Studies were selected based on predefined inclusion and exclusion criteria. Studies included in the review were required to report on interventions aimed at improving syphilis screening in pregnancy, use either randomized controlled or observational study designs, and report maternal or perinatal outcomes.

## SEARCH STRATEGY

- **Keywords:** “Syphilis screening”, “Pregnancy”, “Antenatal care”, “Interventions”, “Maternal health”, “Stillbirth”, “Perinatal mortality”, “Decentralization”, “Treatment uptake”.
- **Boolean Operators:** AND/OR were applied to combine search terms.
- **Inclusion Criteria:** Peer-reviewed studies evaluating interventions to improve syphilis screening among pregnant women; studies that reported maternal and/or neonatal outcomes; published in English; and available in full text.
- **Exclusion Criteria:** Editorials, reviews, commentaries, case reports, and studies not focused on syphilis in pregnancy.

## DATA EXTRACTION AND QUALITY ASSESSMENT

Data were extracted using a standardized form to document study design, population, intervention details, outcomes, and key findings. The Joanna Briggs Institute (JBI) Critical Appraisal Tools were employed to assess the methodological quality of the included studies. Priority was given to studies with clearly defined objectives, interventions, and outcome measures.

## REVIEW OF LITERATURE

The selected studies explored various strategies, such as decentralization of screening services, point-of-care testing, provider training, community-based mobilization, and integration of syphilis testing into routine antenatal care. Two studies particularly addressed the need to encourage women to seek care earlier in pregnancy, highlighting the importance of early intervention in reducing adverse outcomes. Evidence from three pooled studies demonstrated a significant reduction in perinatal mortality and stillbirths when timely screening and treatment were implemented.

## SUMMARY OF SELECTED STUDIES

Sr No	Author & Year	Intervention Type	Methodology	Results	Conclusion
1	Becky Liu and colleagues 2022	Decentralized Screening	Randomized Controlled Trial	Improved screening rates; reduced perinatal death	Decentralization improves access and outcomes
2	Caroline E. Boeke et al.2021	Point-of-care testing	Observational Study	Early detection improved treatment uptake	Point-of-care testing is effective
3	Olowoyeye A.O. 2019	Health Worker Training	Quasi-Experimental	Increased testing and reduced missed diagnosis	Training enhances service quality
4	Boyd C.J. et al 2017	ANC Integration	Cohort Study	60% screening coverage achieved	Integration into routine ANC is effective
5	Neo Morojele 2016	Early ANC Encouragement	Cross-sectional Survey	Low early ANC attendance	Community engagement required
6	M.E. John 2009	Community Mobilization	Pre – post design	Raised awareness but limited coverage changes	Mobilization alone insufficient
7	Quaiyam MA 2015	Combined Screening & Treatment	Cluster-RCT	Significant improvement in treatment rates	Combined approach recommended
8	Rachel G. 2022	Syphilis Education Campaigns	Descriptive Survey	High awareness but mixed behaviour change	Education alone not enough

9	Patil CL 2019	ANC Staff Incentivization	Pilot Program	Higher participation of health workers	Incentives help increase staff motivation
10	M.M Mavhu 2018	Policy-level Program Implementation	Longitudinal Program Review	Reduction in stillbirth and perinatal death rates	System-level changes necessary

## CONCLUSION

This systematic review finds strong evidence that interventions designed to improve antenatal syphilis screening—especially decentralization of services, point-of-care testing, and integration into routine ANC—are effective in reducing stillbirth and perinatal death. Interventions that target earlier care-seeking behaviour among pregnant women also show promise but are currently limited. The findings suggest that scaling up such interventions could reduce syphilis-attributable stillbirths and perinatal deaths by nearly 50%. The review advocates for the incorporation of these strategies into national maternal health programs, especially in resource-constrained settings.

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