# ANTENATAL CARE SERVICE DELIVERY IN RAJASTHAN : EVALUATING UTILIZATION AND COVERAGE USING PCTS DATA (2024-2025)



**Under the guidance of**

**Dr. Sandesh Kumar Sharma**

**Associate Professor, IIHMR University**

**Dissertation Submitted By:**

**Dr. Nidhi Sharma**

**MBA –HEM 2nd Year**

**Roll No-1765**

# CONTENTS



# INTRODUCTION

- Antenatal care (ANC) is the care of the woman during pregnancy. The primary aim of ANC is to promote and protect the health of women and their unborn babies during pregnancy so as to achieve at the end of a pregnancy a HEALTHY MOTHER and a HEALTHY BABY.
- **Goals**
- To reduce the mortality and morbidity of women and children
- To improve the physical, mental, and social well being of women, children, and their families.
- **Objectives**
- To ensure that the pregnant woman in a good health status before pregnancy.
- To ensure that the pregnant woman and her unborn child are in the best possible health prior to delivery.

- To ensure that all pregnant women understand
- (i) the complications of pregnancies that may lead to death,
- (ii) the best approach to safe delivery, and
- (iii) the best way of bringing up their babies.
- **ANC Schedule**
- At least 4 antenatal check-ups of every pregnant woman as per following schedule:
- 1st check-up: Within 12 weeks - preferably as soon as pregnancy is suspected & for registration of pregnancy and first antenatal check-up.
- 2nd check-up: Between 14 and 26 weeks
- 3rd check-up: Between 28 and 34 weeks
- 4th check-up: Between 36 weeks and term

# LITRETURE REVIEW

| S.NO. | STUDY | KEY FINDINGS |
|---|---|---|
| 1 | An Assessment of quality of Antenatal care services at primary health centers and sub health Centers of Udaipur District. | Despite the advancements, challenges remain in ANC service delivery in Rajasthan. Studies have highlighted issues such as delayed or missed early registration due to lack of awareness, incomplete follow-ups, uneven availability of supplements and vaccines at health centers. |
| 2 | Gap identification for improvement in maternal and early infant health care practices among tribal pregnant women in an aspirational tribal district Sirohi, Rajasthan | The study emphasized the need to raise awareness about the importance of early ANC among tribal pregnant women and their families. It also highlighted that poor health infrastructure and lack of access to ANC services contributed to low utilization. |

| | | |
|---|---|---|
| 3 | Pregnancy-Related Deaths in Rural Rajasthan: Exploring Causes, Context, and Care-Seeking | Through verbal autopsies, the study explored factors contributing to pregnancy-related deaths, including delayed care-seeking, financial constraints, and inadequate postnatal care. It emphasizes the need for improved monitoring during and delivery. |
| 4 | Ante natal care (ANC) utilization, dietary practices and nutritional outcomes in pregnant and recently delivered women in urban slums of Delhi, | Identified gaps in ANC utilization and nutritional counseling, highlighting the need for improved health education and services in urban slum areas. |

# OBJECTIVE

- To evaluate the utilization of antenatal care (ANC) services among pregnant women in Rajasthan .
- To assess the coverage of key ANC indicators,
- To identify gaps and disparities in the delivery of ANC services across the Zones.

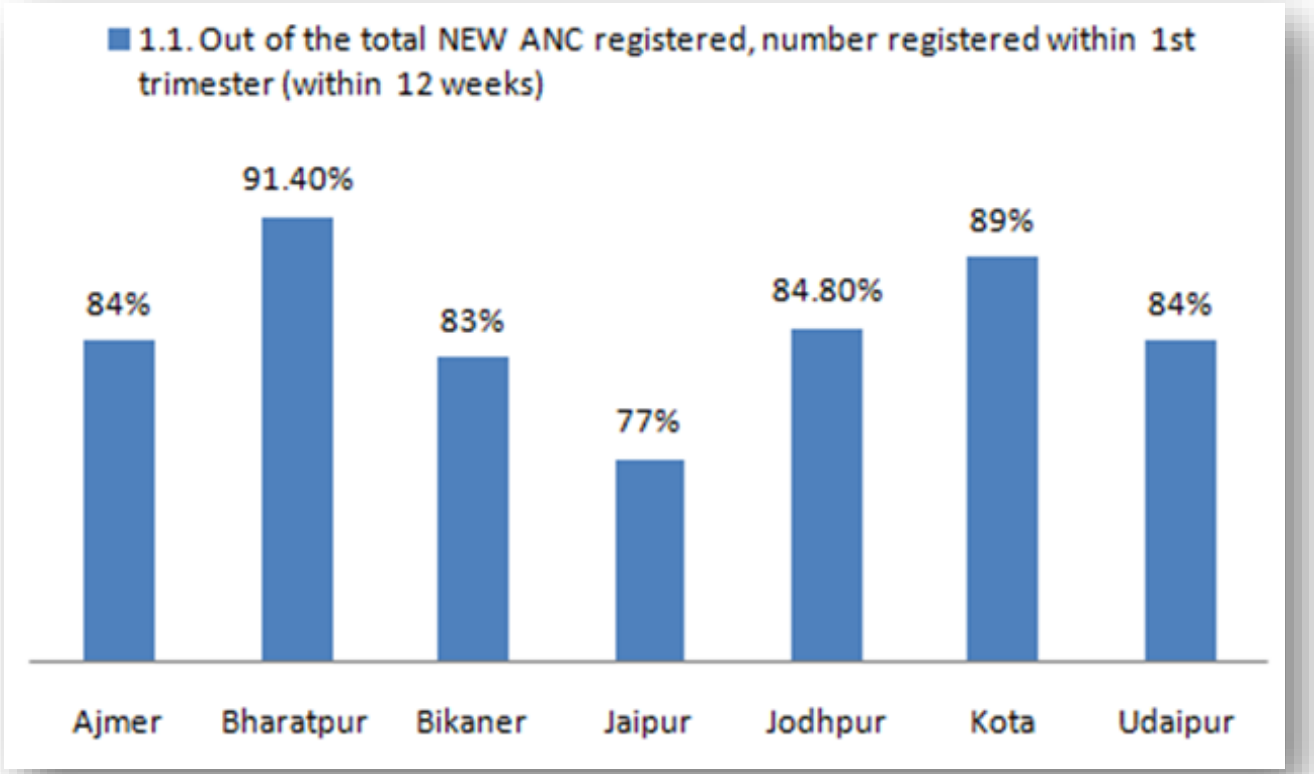
# METHODOLOGY

- **Study Design-**
- Descriptive Retrospective study ,secondary data-based design.
- It is aiming to assess and compare the coverage of selected antenatal care (ANC) indicators across different zones in Rajasthan.
- The study is conducted across districts from the various zones of Rajasthan, namely:
- **Ajmer zone**( Ajmer, Bhilwara, Nagaur,Tonk)
- **Bharatpur zone**( Bharatpur, karuli, Dholpur, Swai Madhopur)
- **Bikaner zone** ( Bikaner, Ganganagar, churu, hanumanghar)
- **Jaipur zone(** Alwar, Jaipur1 ,Jaipur2, Jhunjhunu, Sikar)
- **Jodhpur zone** ( Barmer, jalore, Jaisalmer, Pali, Sirohi)
- **Kota zone** ( bundi, jhalawar , Baran,Kota)
- **Udaipur zone** ( Rajsamand, Chittorghar, Dungarpur, Pratapghar, Udaipur, Banswara)

- **Study population**
- The study population includes pregnant women who were registered and received antenatal care services during the reporting period (typically April 2024 – March 2025) as captured in the PCTS system.
- **Data Source**
- The study uses secondary data extracted from the Pregnancy, Child Tracking & Health Services Management System (PCTS) of Rajasthan,(2024-2025). which is a state-level real-time tracking system for maternal and child health.
- **Selected ANC Indicators**
- The following five ANC service indicators were selected as outcome variables for comparative analysis:
- **1.Early ANC Registration:** Percentage of pregnant women registered within the first trimester of pregnancy.
- **2.Minimum ANC Visits:** Percentage of pregnant women who received four or more antenatal care check-ups.
- **3.Td Booster Coverage:** Percentage of pregnant women who were administered the Td (Tetanus-Diphtheria) booster dose.

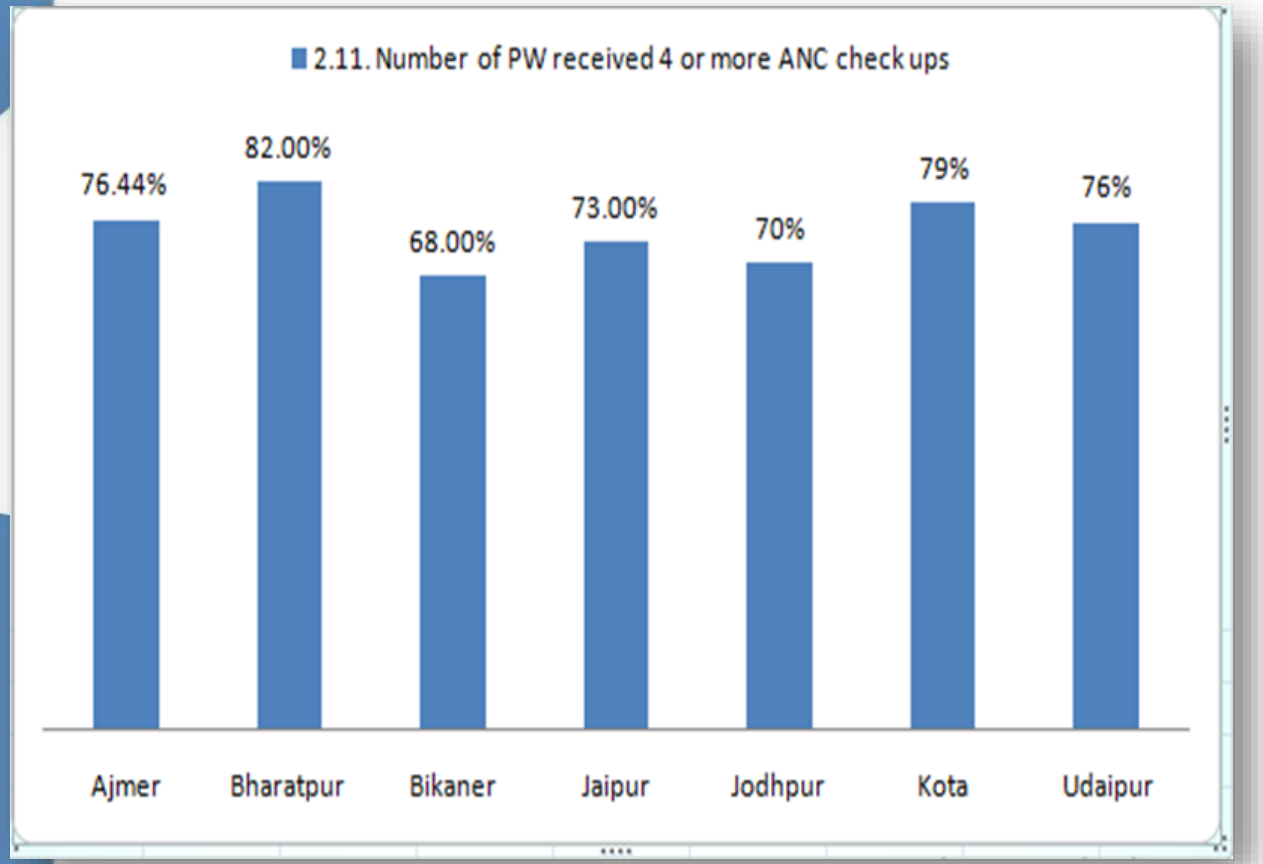
- **4.Iron and Folic Acid (IFA) Supplementation:** Percentage of women provided with the full course of 180 IFA tablets.
- **5.Calcium Supplementation:** Percentage of women who received the full course of 360 calcium tablets.
- **Sampling Method**
- A Convenience sampling approach was used.
- **Data Analysis**
- The cleaned data was analyzed using Microsoft Excel.
- Results are visualized using graphs to identify insights

# DATA ANALYSIS



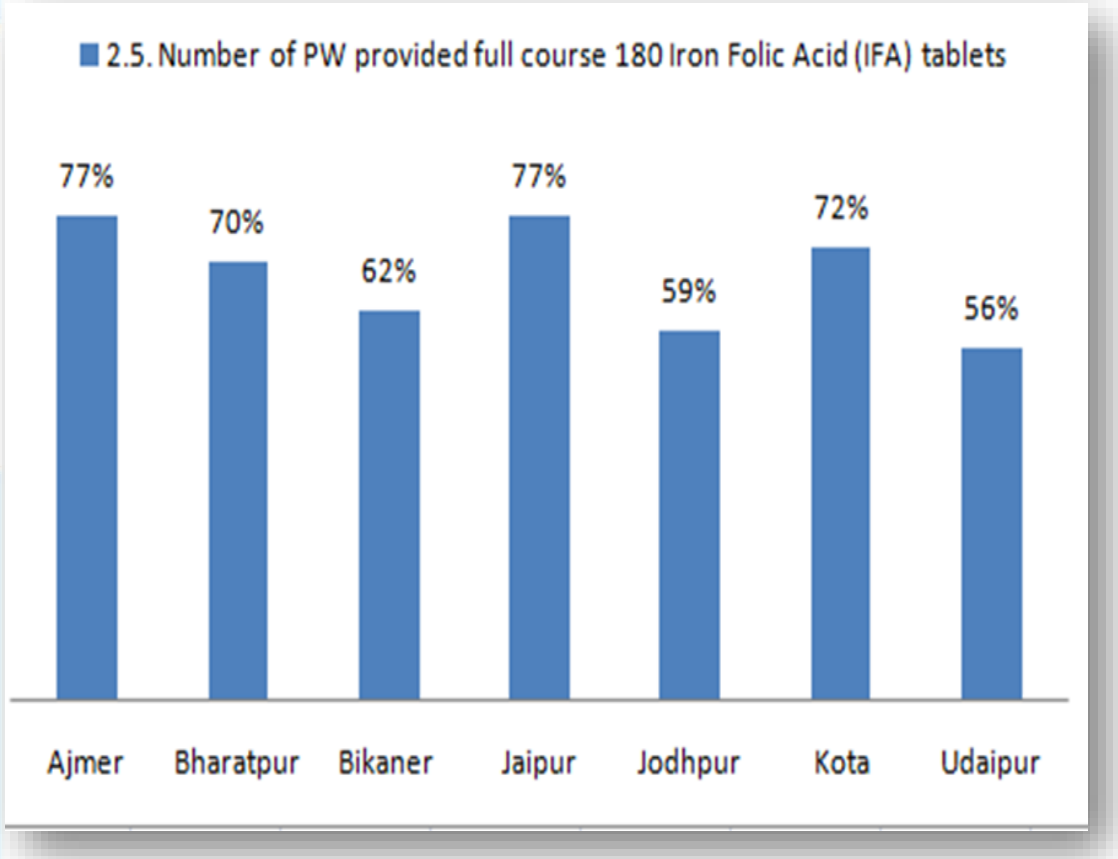

- **1. Top Performers**
- Bharatpur (91%) and Kota (89%)→ Strong ASHA outreach, effective community mobilization, and responsive health systems.
- **2. Moderate Performers**
- Ajmer (84%), Jodhpur (84.8%), Udaipur (84%), Bikaner (83%)→ Minor delays in pregnancy identification, cultural hesitancy, or limited awareness/access.
- **3. Low Performer**
- •Jaipur (77%)→ Possible issues: urban slum undercoverage, weak outreach in dense areas, and migrant population barriers.

# Number of Pregnant women received 4 or more ANC check ups



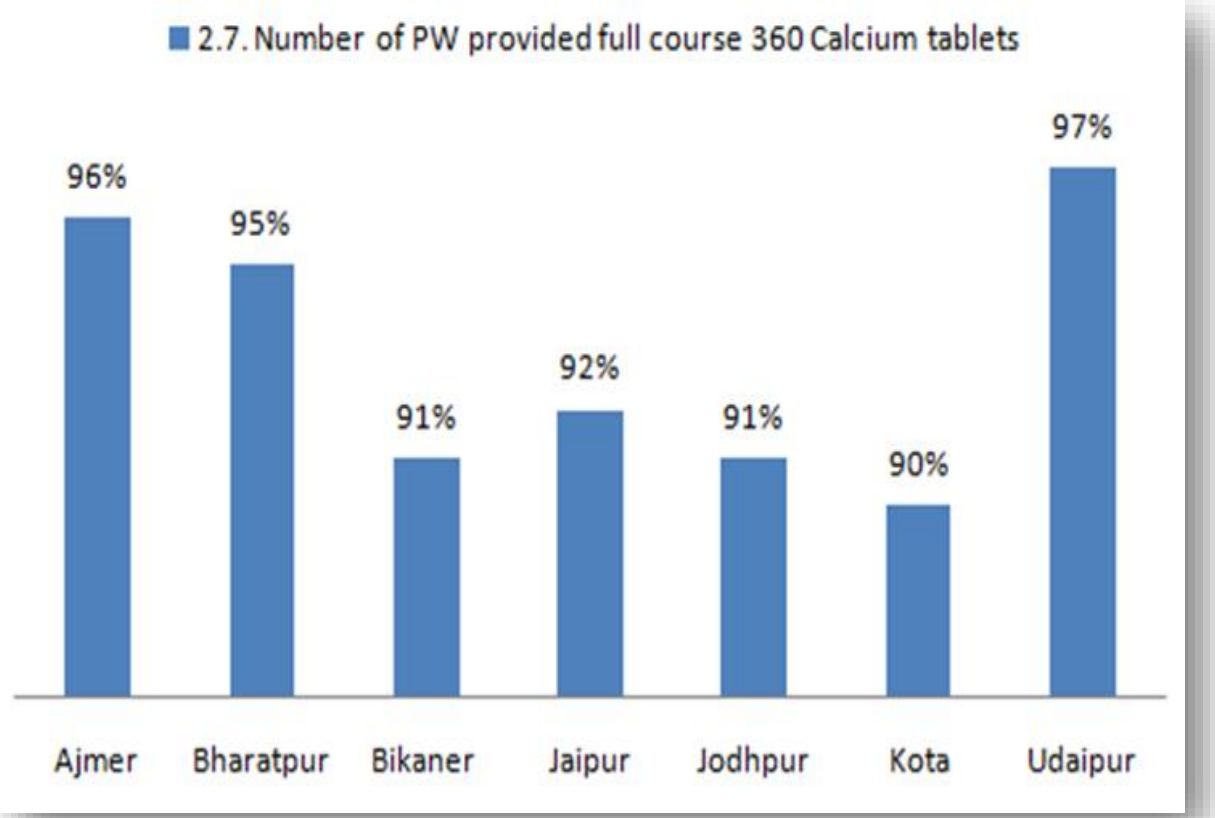

- **Highest Gaps:**
- Bikaner (15%), Jodhpur (14.8%)
- Indicates poor follow-up after early registration
- Causes: Geographic barriers, access issues, weak tracking, sociocultural factors
- **Lowest Gaps:**
- Jaipur (4%), Ajmer (7.56%), Udaipur (8%)
- Reflect better care continuity and stronger frontline worker engagement

# Number of Pregnant women provided full course 180 iron folic acid (IFA) tablets



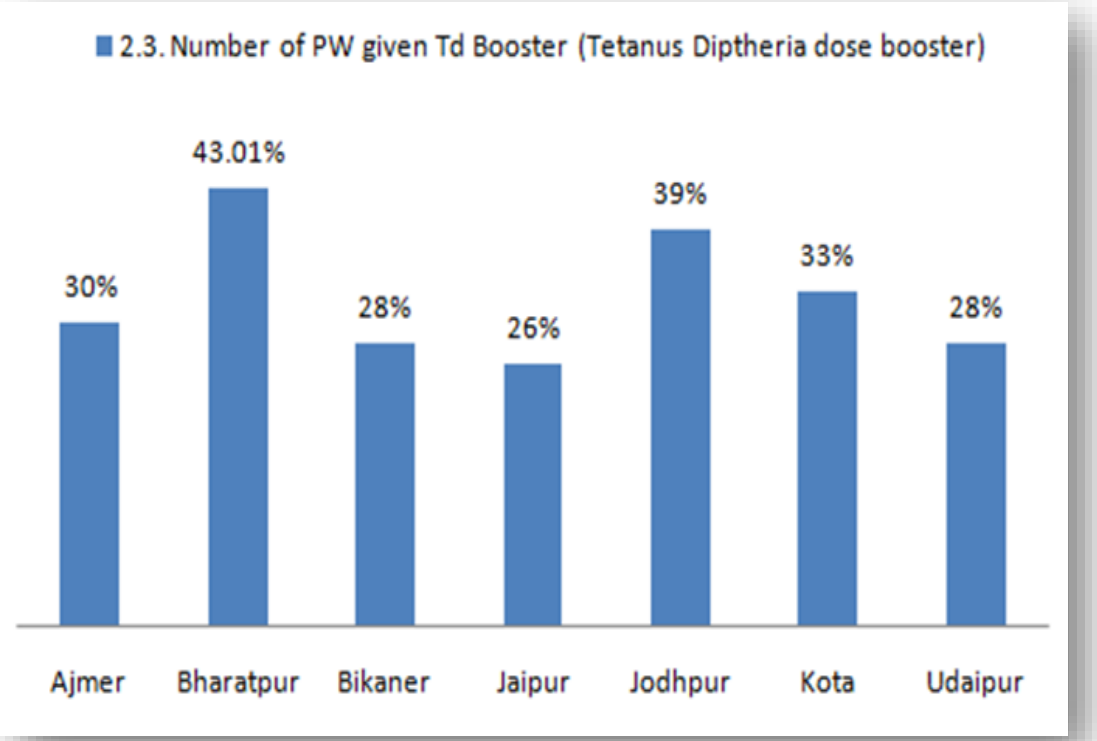

- **1.Best Performers**
- Ajmer (77%) and Jaipur (77%)→ Strong supply chain, effective counseling, and good client follow-up.
- **2. Moderate Performers**-Kota (72%) and Bharatpur (70%)→ System efficiency is evident; minor issues likely in last-mile distribution or stock availability.
- **3. Low Performers** -Bikaner (62%), Jodhpur (59%), Udaipur (56%)→ Issues include logistics gaps, poor counseling, side-effect-related non-compliance, and weak follow-up.

# Number of provided full course 360 calcium tablets




- **1. Excellent Statewide Performance**
- All zones ≥ 90% coverage→ Indicates robust procurement, supply chain, and field-level implementation
- **2. Top Performers-** Udaipur (97%), Ajmer (96%), Bharatpur (95%)→ Reflects strong ANC prioritization, effective counseling, and high compliance.
- High calcium coverage contrasts with lower IFA adherence, pointing to specific challenges with IFA acceptability despite overall ANC system efficiency.

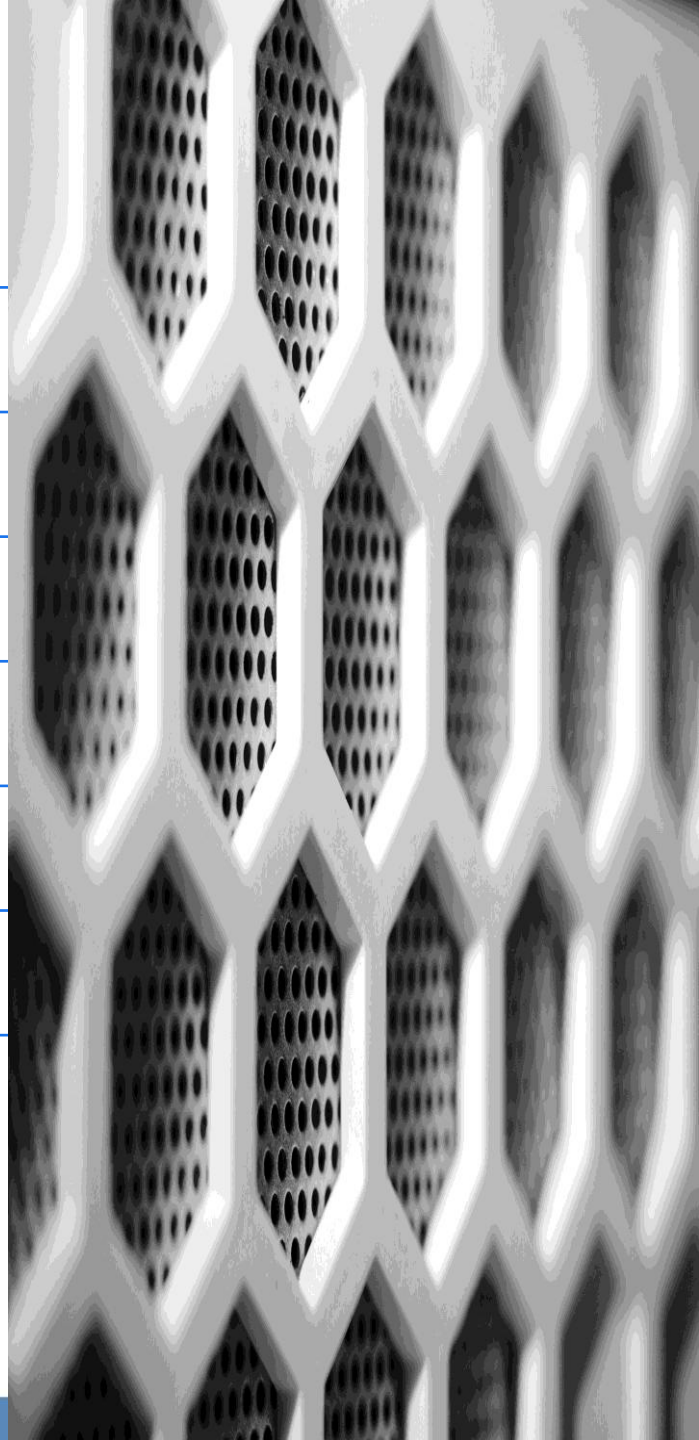
# Number of PW given Booster (Tetanus Diptheria dose booster)




- All zones report low coverage (<50%)→ Indicates a state-wide gap in maternal immunization services
- Implications:-Despite being part of the essential ANC package, Td booster delivery is suboptimal across Rajasthan.
- Reflects systemic issues in tracking, supply, or prioritization.
- Critical, low-cost intervention for maternal and neonatal protection.

# GAP

| |
|---|
| **Provision of Full IFA (180 Tablets)** |
| Largest gap across all zones; none met 100% target. |
| Lowest performers: |
| Udaipur (56%) → 44% gap |
| Jodhpur (59%) → 41% gap |
| Bikaner (62%) → 38% gap |
| **Likely causes:** poor compliance, supply chain issues, inadequate counseling. |



# Td Booster Administration

Most critically underperforming indicator.

All zones far below 90% target.

Lowest coverage: Jaipur (26%) → 64% gap

Udaipur & Bikaner (28%) → 62% gap

Reasons: Missed opportunities during ANC visits, poor tracking, weak maternal immunization efforts.

## Gap Between Early ANC Registration & 4+ ANC Check-ups

- High early registration doesn’t translate to follow-up.
- Significant drop-off in 4+ ANC visits.
- Contributing factors:
- Limited awareness,
- Inadequate counseling,
- Poor accessibility,
- Weak follow-up systems
- Implication: Missed chances for timely risk detection and care.

- **Overall Implications of Identified Gaps**
- **Logistics & Infrastructure:**
- Inconsistent drug/vaccine supply affects care quality.
- **Community Barriers:**
- Cultural norms and low awareness hinder timely ANC uptake.
- **Human Resources:**
- Gaps in training, motivation, and supervision reduce service delivery.
- **Weak Program Integration**:
- Poor coordination between ANC and immunization limits care effectiveness.
- **Data & Tracking Issues**:
- Inadequate monitoring hinders continuity and completion of ANC.

# CONCLUSION

- This study examined the utilization and coverage of key antenatal care (ANC) services in Rajasthan, using PCTS data across seven zones: Ajmer, Bharatpur, Bikaner, Jaipur, Jodhpur, Kota, and Udaipur
- The analysis revealed important insights into the strengths and gaps in service delivery, with implications for improving maternal and neonatal health outcomes in the state.
- Improving early registration, full supplementation, and Td coverage is critical to reducing maternal and neonatal mortality in Rajasthan. Continuous monitoring and integrated interventions will drive better ANC outcomes.

# RECOMMENDATIONS

- **1. Improve Early ANC Registration & Follow-Up**
- Strengthen ASHA outreach and community awareness.
- Ensure timely follow-up by ASHAs/ANMs for 4+ ANC visits.
- Use SMS reminders/mHealth apps for scheduled check-ups.
- Provide counseling during 1st ANC visit on completing all ANC visits.
- **2. Enhance IFA Coverage**
- Ensure continuous supply of IFA tablets at all facilities.
- Improve logistics and stock management.
- Provide effective counseling on IFA benefits and side-effect management.

- **3. Strengthen Td Booster Administration**
- Link Td vaccination with JSY/JSSK incentives.
- Make complete ANC (including Td) a condition for JSY benefits.
- Train ANMs/ASHAs
- Counseling and documentation
- **4. Improve Access in Rural/Tribal Areas**
- Conduct frequent ANC outreach camps.
- Provide transport support (e.g., Janani Express).

- **5. Strengthen Monitoring & Evaluation**
- Ensure accurate data entry in PCTS.
- Use PCTS dashboards for micro-planning in low-performing areas.
- Conduct regular reviews for targeted action.
- **6. Promote Institutional Deliveries**
- Integrate ANC with Janani Suraksha Yojana (JSY) to boost facility-based deliveries.

# REFERENCES


- World Health Organization. WHO recommendations on antenatal care for a positive pregnancy experience. Geneva: WHO; 2016. Available from: https://www.who.int/publications-detail-redirect/9789241549912
- Purohit V. An assessment of quality of antenatal care services at primary health centres and sub health centres of Udaipur district. Int J Med Res. 2021;7(3):21–6. doi:10.53555/9mfs8j95
- Dwivedi R, Goel AD, Vyas V, Yadav SS, Sharma PP, Bhardwaj P, et al. Gap identification for improvement in maternal and early infant health care practices among tribal pregnant women in an aspirational tribal district Sirohi, Rajasthan.

- Patel BB, Kochar J, Mazumdar VS, Nirupam S. Utilization of antenatal care services in urban slums of a city in western India. Int J Med Sci Public Health. 2015;4(10):1421–7. doi:10.5455/ijmsph.2015.17042015280.
- Navaneetham K, Dharmalingam A. Utilization of maternal health care services in Southern India. Soc Sci Med. 2002 Oct;55(10):1849–69. doi:10.1016/s0277-9536(01)00313-6.


THANK
YOU!
SO MUCH