



Trend analysis of New Registrations and Deliveries From December 2024- May 2025- A study on Dropout percentage

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BACKGROUND

Maternal health is one of the most essential indicators of a country's healthcare quality. Over the years, India has made considerable progress in improving maternal healthcare outcomes by increasing institutional deliveries, antenatal coverage, and awareness through government schemes and private sector engagement.

Despite this progress, women who are expecting, dropout during the continuum of care, particularly between antenatal registration and final delivery. This study, conducted at Cloudnine Hospital, Bangalore, seeks to investigate the trends in antenatal registrations and deliveries over a six-month period from December 2024 to May 2025, with the aim of identifying the extent and patterns of patient dropout. It focuses specifically on analysing the difference between the number of women with Expected Date of Delivery (EDD) and those who actually delivered at the facility.

AIM

To analyse month-wise trends in new ANC registrations and deliveries at Cloudnine Hospital, assess dropout percentages during the study period, and identify underlying reasons.

OBJECTIVES

1. Quantify the monthly number of women with an Expected Date of Delivery (EDD) and the corresponding deliveries from December 2024 to May 2025.
2. Calculate the overall and month-specific dropout percentages.
3. Classify dropouts into four predefined categories:
 - Delivering at native place
 - Delivering at another hospital
 - No response from customer
 - Second Opinion (only registered)
4. Recommend evidence-based interventions to reduce dropout and enhance patient retention.

REVIEW OF LITERATURE

Author	Year	Location	Sample Size	Sampling Technique	Salient Features
Gandhi S et al.	2022	India – National Family Health Survey-5	190,898 ever-married women (2019–21)	Multistage stratified cluster sampling	Continuum-of-care drop-out highest between ANC ≥ 4 visits and institutional delivery; wealth, education and counselling quality significant predictors.
Singh L et al.	2022	India- NFHS-5 pooled analysis	77,154 last births	cluster sampling	Identified 34% “partial users” who received ANC but delivered outside a facility, urban-rural and interstate disparities highlighted
Longchar W et al.	2021	India (2015-2021 HMIS data)	178 million service records	Census of routine HMIS	Found progressive decline in ANC to- delivery completion, particularly in private facilities, called for targeted engagement strategies.

Author	Year	Location	Sample size	Sampling technique	Salient Features
Kaur P & Sharma SK	2021	North India – tertiary hospital	402 pregnant women	Convenience sampling	41 % planned to deliver elsewhere despite registering; cost perception, family influence and distance key reasons.
Bintabara D et al.	2017	Tanzania – DHS 2015/16	611 Births	Stratified Samplin	Multilevel analysis showed facility distance and partner education predicted delivery drop-out after ANC enrolment.
Akinyemi JO et al.	2016	Nigeria-DHS 2013	38,948 Women	Two Stage Cluster sampling	46 % discontinuity between ANC and skilled birth attendance; wealth index and media exposure protective.

Author	Year	Location	Sample size	Sampling technique	Salient Features
Worku D et al.	2021	Dire Dawa, Ethiopia – public facilities	588 postnatal mothers	Systematic random sampling	32 % ANC drop-out; lack of birth-preparedness counselling most cited factor.
Asnake AA et al.	2024	Tanzania-DHS 2022	12,546 births	Stratified cluster sampling	Multilevel modelling showed community-level literacy and facility density mitigate drop-out risk.
Teka MG et al.	(2024)	Adigrat, Ethiopia (post-conflict)	438 mothers	Cluster sampling	Conflict-affected areas recorded 59 % ANC-delivery drop-out; security and transport disruptions major drivers.

Author	Year	Location	Sample size	Sampling technique	Salient Features
Bhattacharyya S et al.	2015	Uttar Pradesh, India – secondary hospitals	36 in-depth interviews	Purposive qualitative sampling	Women cited overcrowding, poor staff attitude and preference for maternal home as causes for switching delivery sites.
Kumar S et al.	2014	Rural-India	7273, Live Births	Multistage random sampling	Each additional 5 km to facility reduced odds of institutional delivery by 17 % despite prior ANC attendance
World Health Organization	2021	Global systematic review	78 quantitative studies	Literature search & quality screening	Concluded that reminder systems, birth-planning counselling and transport vouchers reduce ANC-to-delivery attrition.

METHODOLOGY

- 1. Research Design:** A retrospective descriptive study design has been used.
- 2. Study Setting:** The study is conducted at Cloudnine Hospital, Malleswaram Unit, Bangalore.
- 3. Study Population:** The population for this study includes all pregnant women who registered for antenatal care (ANC) at Cloudnine Hospital between December 1, 2024, and May 31, 2025, and had an expected date of delivery (EDD) recorded in these particular months in the hospital system.

4. Sample Size: The study includes all eligible antenatal registrations during the six-month period estimated to be around 800-900 patients.

5. Sampling Technique: A total enumeration sampling method is used.

6. Study Instruments:

- A structured Excel sheet to record patient data and categorize dropouts.
- Call follow-up records from the hospital's CRM system are used to determine reasons for dropout where direct data is unavailable.
- EDD sheets, New born, IPD admission reports were used to specifically compare and cross check the accuracy of the dropouts.

7. Inclusion criteria:

- Pregnant women with antenatal registration during the study period.
- Cases with complete registration data and expected delivery dates (EDD)

8. Exclusion criteria:

- Non- pregnant patients (Gynaec/ MTP)
- Other department patients.
- Patients with incomplete records.

APPROACH

- EDD sheets, Newborn report, IPD admission reports were used for the analysis and interpretation.
- Deliveries were crossed checked and categorized based upon the remarks in the EDD sheet using the parameters:
 - 1.Going to deliver at Native
 - 2.Going to deliver at Other Hospital
 - 3.No response from the customer
 - 4.Second Opinion

Valid EDD, Total Deliveries and Dropouts

Month	Valid EDD	Delivered in centre	Dropouts	Dropout %
December-24	180	57	64	35.56
January-25	175	62	55	31.43
February-25	162	58	57	35.19
March-25	173	48	66	38.15
April-25	169	62	59	34.91
May-25	162	52	65	40.12

Dropout reasons

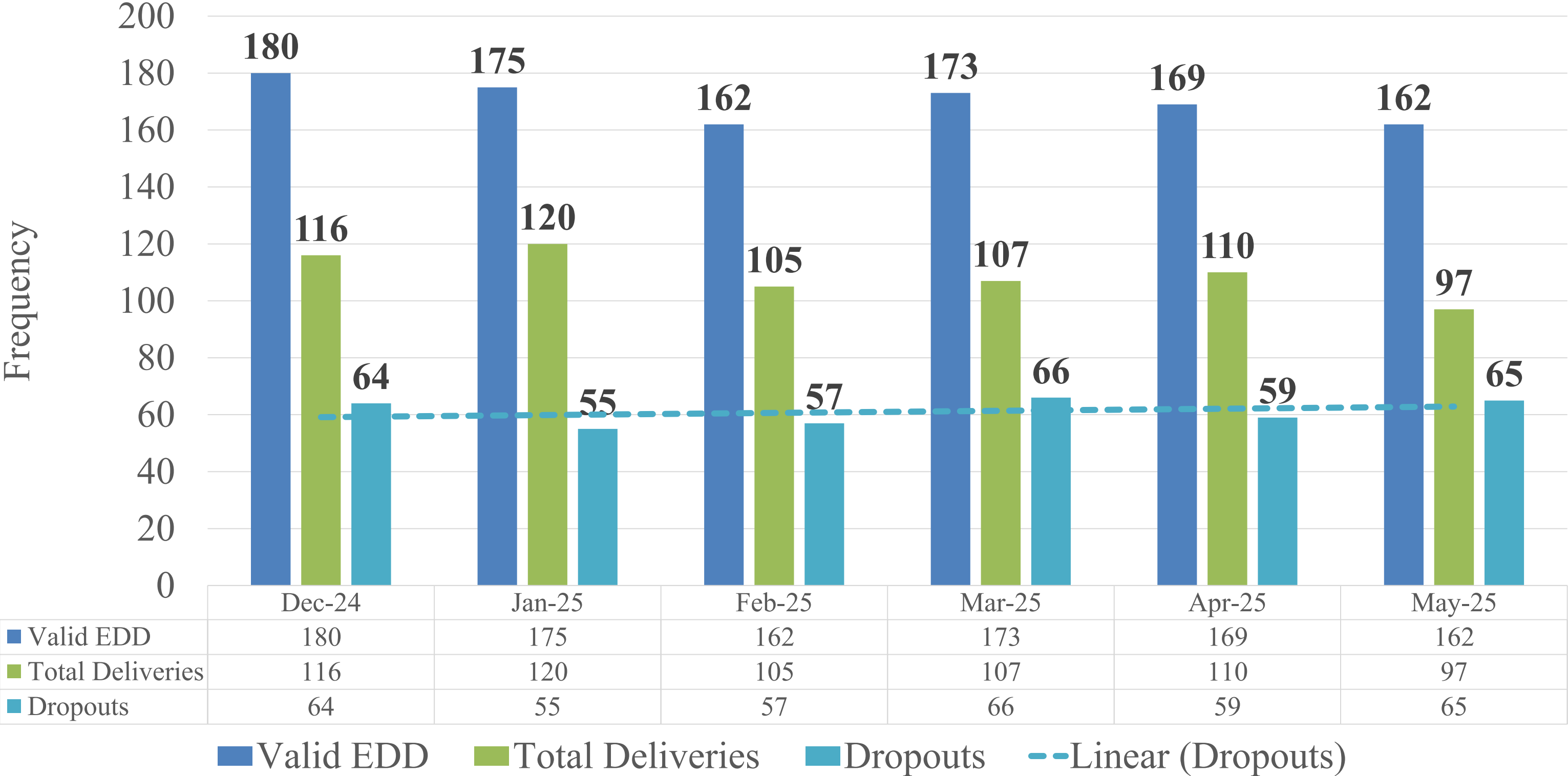
Months	At Native	Other Hospital	No response	Second Opinion
December-24	23	20	1	20
January-25	25	20	10	19
February-25	37	14	2	16
March-25	29	22	1	23
April-25	28	13	2	16
May-25	22	20	2	13

Dropout reasons and their percentage

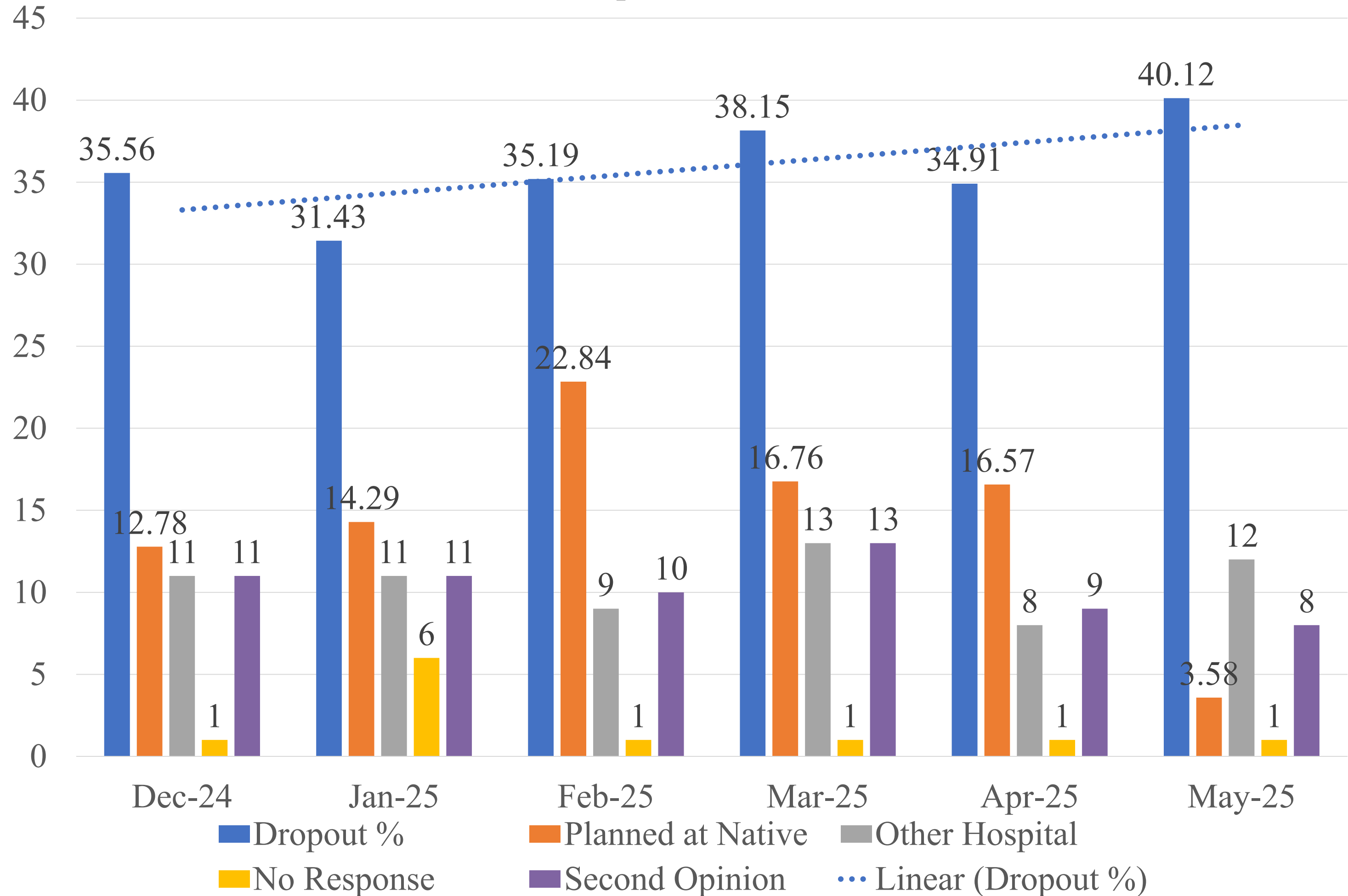
Month	Valid EDD	Total Deliveries	Dropout	Total Dropout%	At Native	Other Hospital	No response	Second Opinion
December-24	180	116	64	35.56	12.78	11	1	11
January-25	175	120	55	31.43	14.29	11	6	11
February-25	162	105	57	35.19	22.84	9	1	10
March-25	173	107	66	38.15	16.76	13	1	13
April-25	169	110	59	34.91	16.57	8	1	9
May-25	162	97	65	40.12	13.58	12	1	8

RESULT

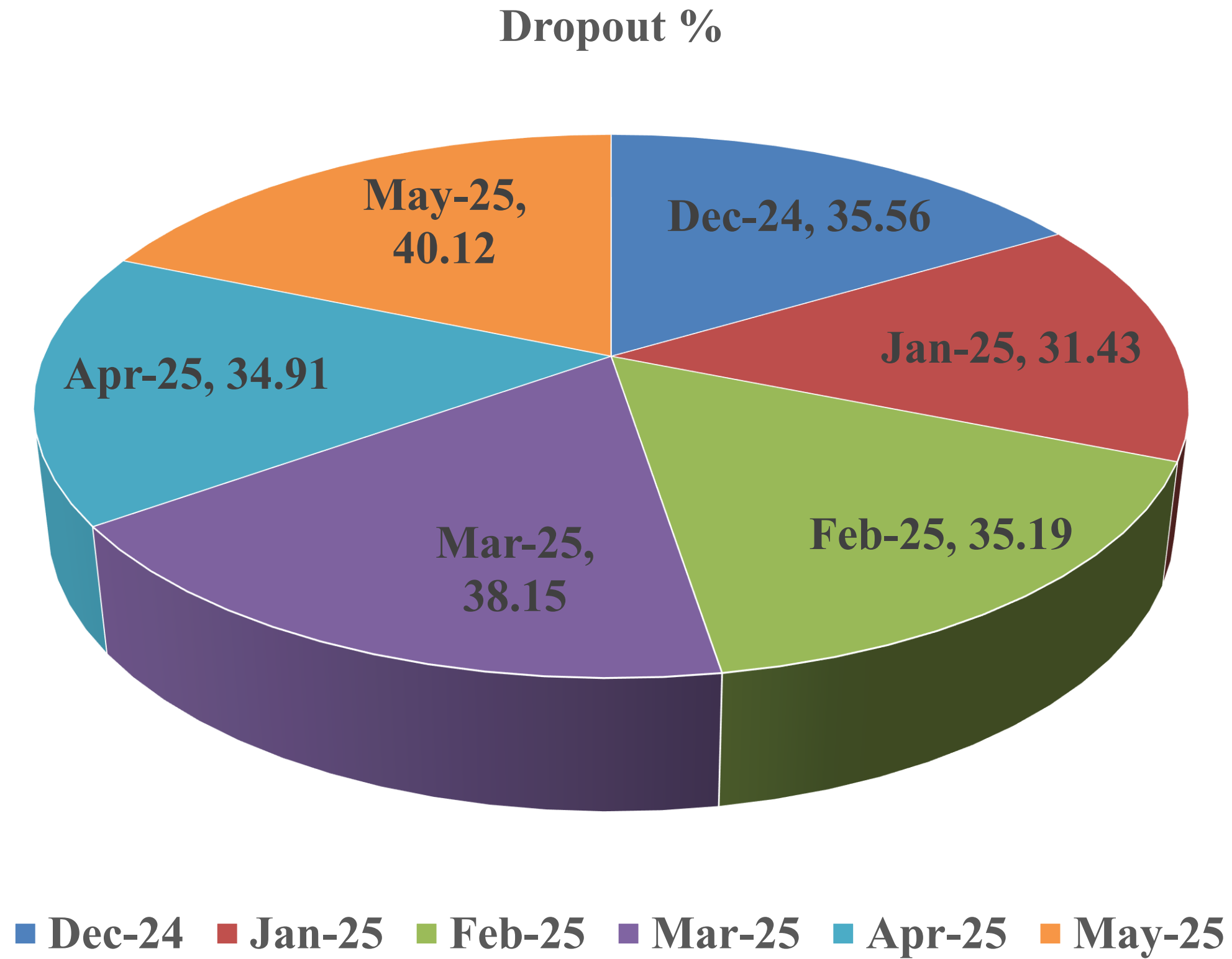
Dropout Analysis



Dropout reasons



Total Dropout % (Month-wise)



INTERPRETATION

- Highest dropout rate occurred in March 2025 at 38.2%, despite moderate registration.
- Native place delivery and shifts to other hospitals were major dropout reasons.
- Second opinion and no-response cases highlight follow-up gaps in patient engagement.
- Consistent preponed deliveries suggest unpredictability in actual delivery timing vs EDD.

ANALYSIS

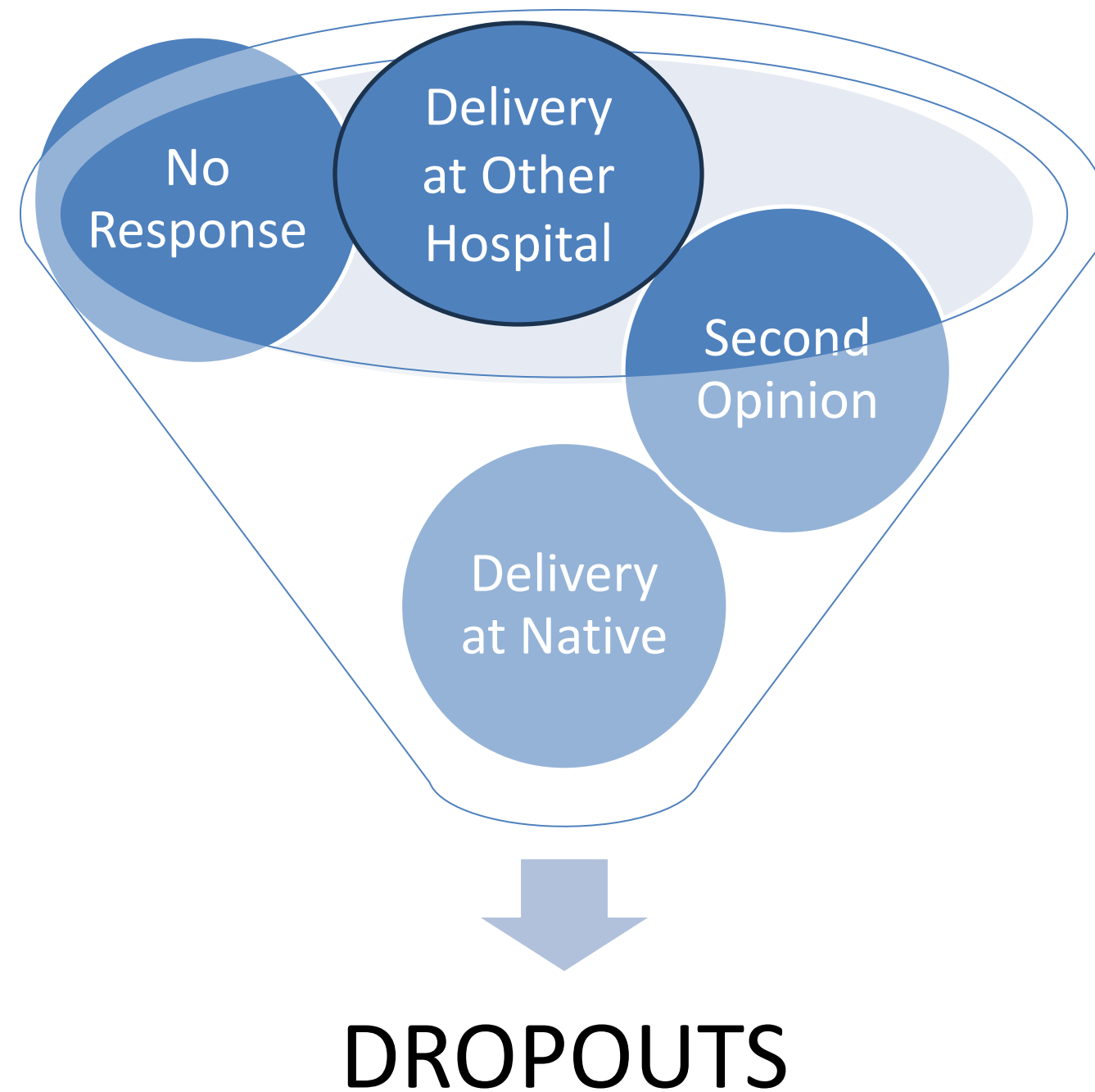
- Dropout rates remained over 30% each month, indicating a major loss in delivery conversions.
- At least 20–25% of dropouts per month were due to native place preference.
- Other hospitals consistently attracted 7–13% of patient's post-registration.
- No-response cases suggest need for CRM system enhancement and timely callbacks.

TREND ANALYSIS OVERVIEW

This analysis tracks delivery conversion trends based on Valid EDDs from Dec 2024 to May 2025.

- Dropout % ranged between 31% to 40%
- March and May showed highest dropout trends
- Preponed and postponed deliveries were consistent
- Deliveries at the center remained under 40% of EDDs monthly

Targeted Strategies for reducing patient dropouts



Native Place Preference

- Many expectant mothers prefer to deliver at their parental home or village, especially during their third trimester.
- Cultural comfort, family support, and traditional practices strongly influence this decision.

Shift to Other Hospitals

Some patients move to government or more affordable private hospitals, often due to:

- Cost concerns
- Proximity to residence
- Emergency or unplanned delivery needs

Second Opinion / Scan-Only Visits

- Some patients come for NT scans, anomaly scans, or specialist reviews but had no intention to deliver at the center.
- Lack of conversion due to absence of early engagement or follow-up.

No Response / CRM Drop-off

- Patients often do not respond to follow-ups if:
- They've already decided to deliver elsewhere.
- The communication from the hospital isn't consistent or personalized.
- There is consultant migration or leave during their expected delivery period.

STRATEGIES

1. EDD-Based CRM Follow-Up Pop Up (30-38 weeks).
2. Counselling of patients visiting first time or during 24-28 weeks.
3. Incentivizing Booked Deliveries.
4. Weekly follow up calls and WhatsApp reminders.
5. Consultant-Led Retention.
6. Valid/Invalid EDD report.
7. Engagement via Digital Tools.
8. Interviews and Dropout analysis every Month.

Cloudnine offers:

- Early booking discounts i.e. Early Bed Booking (EBB).
- Free baby kits.
- Priority admission for booked patients.
- Cashback or vouchers after successful delivery (Antenatal/Postnatal sessions, including, Lamaze, Breast feeding, dietary, psychology).
- Special Massages and stress releasing sessions if Booked Presidential/ Luxury suites.

IN-PROGRESS

- Counselling on delivery planning by 28 weeks
- Personalized CRM messages are sent to improve response before the next appointment of the patient.
- Second opinion cases are re-engaged and counselled again.
- EDD-focused dashboards are created every month to track high-risk dropouts.
- Patient satisfaction surveys post-dropout are in progress to ensure Cloudnine provides quality service to the patient.

THANK YOU