

## **SYNOPSIS - DISSERTATION**

**Submitted to:**

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### ***TITLE: Optimizing Newborn Vaccination Retention: Trends and Strategies at a Maternity & Child Hospital***

#### **1. INTRODUCTION:**

Vaccination plays a vital role in protecting newborns from preventable diseases, particularly during the critical first six months of life. Despite its importance, vaccination retention rates at hospitals often fall short of desired targets, impacting hospital revenues. This study focuses on understanding the factors affecting vaccination retention at Cloudnine Hospital HRBR Unit and proposes strategic interventions to improve these rates.

#### **2. RESEARCH QUESTION:**

What are the vaccine retention rates for pediatric patients at a maternity and child hospital from October,2023 to May,2024 and how can these rates be improved based on the identified trends and influencing factors?

#### **3. OBJECTIVES:**

1. To analyze trends in vaccination retention rates over time.
2. To identify internal and external factors affecting vaccination retention.
3. To propose strategies aimed at improving vaccination retention rates.

#### **4. MATERIAL AND METHODS:**

a) **STUDY DESIGN:** Observational, Mixed-methods approach using both quantitative and qualitative data.

b) **SETTING:** Cloudnine Hospital – HRBR Unit (A maternity and child hospital)

c) **STUDY POPULATION:** Newborns delivered in the hospital who were due for vaccination between June 2023 to May 2024.

- **Inclusion criteria:** Newborns delivered at the hospital from December 2022 to March 2024.
- **Exclusion criteria:** Patients with incomplete medical records.

d) **STUDY TOOLS:**

- Hospital Management Information System (HMIS) for newborn reports and pharmacy sales data.
- Microsoft Excel for data analysis and calculation of retention rates.

e) **DURATION OF STUDY:** The study was conducted over a three-month period, from April to June 2024. This timeframe included data collection, analysis, and interpretation of vaccination retention rates for pediatric patients.

f) **DATA COLLECTION PROCEDURE:**

- Quantitative data collected from HMIS and pharmacy sales records to track vaccination retention at the 6th week, 10th week, 14th week, and 6th month.
- Follow-up calls conducted with parents/guardians of infants who missed vaccinations to gather qualitative data on reasons for non-retention

**g) OPERATIONAL DEFINITIONS:**

- **Vaccine Retention Rate:** The percentage of pediatric patients who received scheduled vaccinations at specified intervals.
- **6th Week, 10th Week, 14th Week, 6th Month Intervals:** Specific time points post-birth when vaccinations are due.
- **Internal Factors:** Hospital-specific practices such as appointment scheduling, reminder systems, and staff engagement.
- **External Factors:** Factors outside the hospital's control, such as maternal travel.

**6. DATA ANALYSIS PLAN:**

- Quantitative data analyzed using Microsoft Excel to calculate retention rates and identify trends.
- Qualitative data analyzed using thematic analysis to identify common reasons for non-retention.

**7. ETHICAL CONSIDERATIONS:**

- Ensuring patient confidentiality and data protection.

**8. IMPLICATIONS OF RESEARCH:**

- Identification of gaps in the current vaccination program.
- Enhanced understanding of factors influencing vaccination retention.
- Development of targeted interventions to improve vaccine retention rates.

## **9. REFERENCES:**

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