

Logbook- cum- Portfolio

Elective Module: Changing Delivery Patterns in Rural Ludhiana: Trends in Vaginal and Caesarean Deliveries in last 5 years

Name of Block	Block 1
Name of Elective	Changing Delivery Patterns in Rural Ludhiana: Trends in Vaginal and Caesarean Deliveries in last 5 years.
Location of hospital lab or research facility	Rural Health Centre / Field Practice Area, Department of Community Medicine, DMC&H
Name of internal preceptor(s)	Dr. Mahesh Satija
Name of external preceptor if applicable	N/A
Learning objectives of elective	1. To estimate the proportion of institutional deliveries in rural area of Ludhiana. 2. To describe maternal and obstetric characteristics associated with caesarean deliveries (age, parity, referral status, previous CS, high-risk conditions). 3. To identify common indications for caesarean section and categorize them as medically indicated or potentially avoidable (as per available records). 4. To explore health system and patient-level factors contributing to rising caesarean rates (referral pathways, facility capability, patient preferences, medico-legal concerns) through key informant inputs where feasible. 5. To compile, clean, analyze and interpret data and prepare a report/abstract with recommendations for maternal health services.
Number of students that can be accommodated in this elective	4
Prerequisites for	Basic epidemiology, record review skills, ethical conduct

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elective	& confidentiality, basic MS Excel/SPSS.
List of activities of student participation	1. Orientation to the elective topic, research question, scope, and ethical considerations (privacy of maternal records). 2. Review of literature on caesarean trends, WHO perspectives, and Indian context; finalize operational definitions and indicators. 3. Finalize data sources and sampling (e.g., delivery register, referral register, facility HMIS records, discharge summaries). 4. Develop data abstraction proforma and pilot test on a small set of records; revise tool. 5. Data collection through record review (and optional brief interviews/key informant discussions with staff, if permitted). 6. Data entry, coding, and data cleaning (missing values, consistency checks, duplicates). 7. Descriptive analysis (CS rate, indications, trends if multiple months/years available) and stratified comparisons (e.g., primipara vs multipara). 8. Interpretation with programmatic relevance; draft actionable recommendations (quality of ANC, referral strengthening, counseling, audit & feedback). 9. Prepare report/abstract and present findings to faculty 10. Manuscript writing
Learning resources	1. Betran AP, Ye J, Moller AB, Souza JP, Zhang J. Trends and projections of caesarean section rates: global and regional estimates. BMJ Glob Health.2021;6(6):e005671. Available from: https://gh.bmj.com/content/6/6/e005671 2. WHO statement on caesarean section rates. Geneva:

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	World Health Organization; 2015. Report No.: WHO/RHR/15.02. Available from: https://iris.who.int/handle/10665/161442 3. International Institute for Population Sciences (IIPS), ICF. National Family Health Survey (NFHS-6), 2023-24: India Fact Sheet. Mumbai: IIPS; 2026. Available from: https://www.nfhsiips.in/nfhsuser/assets/National%20Family%20Health%20Survey%20(NFHS-6)%202023-2024%20Fact%20Sheets.pdf 4. WHO statement on caesarean section rates.
Portfolio entries required	• Participant information sheet/consent form. • Dataset and codebook • Statistical output (tables/graphs) and brief interpretation notes. • Final report/abstract and presentation slides.
Log book entry required	Satisfactory completion of posting as certified in the log book with a "meets expectation (M)" grade.
Assessment	• Attendance and participation. • Completeness and quality of record review and documentation in logbook. • Quality of dataset and descriptive analysis. • Report/abstract quality and presentation.
Other comments	

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Caesarean section (CS) is a life-saving obstetric procedure when medically indicated; however, rising CS rates across settings have raised concerns about potential overuse and associated maternal-neonatal risks and health system costs. Currently, global rate of 21% has surpassed the WHO recommendation of 10-15%. Mirroring this trend, India reports overall Caesarean section rate of 21.5% with rural areas reporting rate of 22.8%. (NFHS-6). In rural areas, patterns of escalation may reflect a complex interplay of clinical risk profiles, referral practices, availability of skilled providers and surgical facilities, patient expectations, and systemic constraints.

This elective offers an opportunity to examine the magnitude and drivers of caesarean section in a selected rural field practice area of Ludhiana. Using proforma students will document caesarean rates, common indications, and associated maternal characteristics. The exercise strengthens competencies in record review, public health analysis, ethical handling of sensitive health data, and translation of findings into actionable recommendations.

At the end of the elective, students will submit a concise report/abstract and present the findings to faculty, highlighting potential avenues for quality improvement such as antenatal risk screening, referral coordination and patient counseling.

Department of Community Medicine,

Dayanand Medical College and Hospital,

Ludhiana