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Assessment of Antenatal and Obstetric Care Services in a Rural District of Nepal

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This study describes the situation of maternal health care services in Banke, a rural district of Nepal. It aims to assess and contribute to the improvement of quality of antenatal and obstetric care services. The starting point was concern about the high maternal and perinatal mortality (maternal mortality ratio 539/100,000 live births, perinatal mortality rate 57/1000 births), coinciding with a particularly low utilisation of maternal health care services in Nepal.

The quality of maternity services was assessed with a set of quantitative indicators. This was complemented by a community-based study on local risk concepts, perceived quality of care and other factors determining the use of modern health services in pregnancy and childbirth. Both qualitative and quantitative methodologies were applied. The data were collected in two hospitals and 14 first line health facilities and their catchment population. The data sources include: (1) document review covering 1378 first antenatal consultations and 1323 hospital deliveries; (2) inventories of staff, essential equipment, drugs and supplies in the selected health facilities; (3) interviews with health workers (n=19), health service users

(antenatal attendees n=136, hospital deliveries n=146), and key-informants (n=21); and (4) 6 focus group discussions (56 participants).

Health infrastructure

Banke district has 42 first line health facilities serving a population of 338,000 (1 facility per 8000 population). However, antenatal care is provided at only 68% of first line health facilities, often limited to one day per week. Even less (36%) of first line health facilities provide delivery care. Essential obstetric care service is offered by two hospitals in the district capital.

Process quality

The coverage of antenatal care was 28% for the district (urban 50% vs. rural 24%). Preventive activities such as tetanus vaccination (coverage 51%) and iron supplementation (effective doses 5.2%) are only partially implemented. The national risk catalogue is inflated (47 risk factors) and does not discriminate serious and accepted danger signs from frequent demographic characteristics with low predictive properties. Therefore, it does not promote targeted referral practices. Antenatal care is technically orientated and pays little attention to interpersonal relationship and individual counselling (average counselling time: 1 minute). Out of 41% high risk pregnancies among antenatal attendees, only 15% received a referral advice. This advice was followed in one third of cases, only.

Among 13520 expected deliveries in the district, 1323 took place in hospitals (9.8%). A wide urban-rural disparity is observed (urban 36% vs. rural 4.5%). This is related to greater accessibility for urban women and long distances and high transport costs for women from the rural areas. Caesarean section was performed in only 1.1% of expected deliveries (urban 2.3% vs. rural 0.2%) against a minimum need of 5% according to WHO.

Output and outcome quality

The majority of complicated deliveries occurred outside the health service. Only a small proportion of high risk pregnancies reached the referral hospital (< 5% of previous Caesarean section as well as of pre-eclampsia/eclampsia cases). Thus an important objective of antenatal care was missed. Emergency obstetric admissions were observed rarely (0.3% of expected deliveries) although severe complications in childbirth occur in about 5% of expected deliveries, even among low risk pregnancies. The high stillbirth rate observed in

hospital (all deliveries 7%, in Caesarean section cases 14.3%, in breech deliveries 25.8%) indicates deficiencies in hospital-based obstetric care.

Socio-cultural context

Beyond health service factors such as restrictions in access and low quality of care, there are also powerful social and cultural factors that appear to be equally important as reasons for low utilisation of maternity services. These factors are: the traditional perception that pregnancy and childbirth is a process not requiring extra medical care; the courtesy and convenience of home delivery; taboos related to the caste system; the culturally valued women's submission under the elderly; and the perceived illness aetiology influencing the families' health seeking behaviour in pregnancy and childbirth.

The following recommendations are made to improve the maternity services in this district:

- Counselling in antenatal care should be based on women's preferences instead of stereotype risk assignment.
- Accessibility of antenatal and delivery care should be improved by providing services at all first level health facilities.
- Transport mechanisms for obstetric emergencies should be developed on a local level.
- Training and supportive supervision of health workers should be intensified with emphasis on communication and counselling.
- At the national level, maternity care guidelines, including the risk categories, should be critically re-assessed and modified towards a more feasible and user friendly referral practice.