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ORIGINAL RESEARCH

Unmet need for essential obstetric services in a rural district in northern Ghana: Complications of unsafe abortions remain a major cause of mortality

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Summary *Aim*: The aim of this study was to review 4 years of hospital data on antenatal services, deliveries and maternal deaths as the baseline evaluation for a programme to improve care.
Methods: Descriptive analyses were made of data extracted from the monthly returns charts and clinical notes on all maternal deaths from January 2001 to December 2003 at the district hospital in the Kassena-Nankana district of rural northern Ghana.
Results: The majority (56.6%) of women first attended an antenatal clinic during the second trimester, and about 70% had haemoglobin levels of <10 g/dl. A total of 3160 deliveries were recorded. The prevalence of female genital cutting was 21.4%. Hospital and population rates of Caesarean section were 9.1 and 1.8%, respectively. Only one-third of women in need of a Caesarean section were able to access this intervention. Twenty-four maternal deaths were recorded, giving a hospital maternal mortality ratio of 759 per 100 000 live births. Complications of unsafe abortion (29.1%) and haemorrhage (20.8%) were the leading causes of death. Seventy-one percent of deaths occurred in women living within 15 km of the district hospital, and 50% occurred within 24 h of arrival.
Conclusion: Late recourse to the health facility and complications of unsafe abortion are major contributory factors to maternal mortality in this district. A high level of unmet need for essential obstetric services, including access to contraceptive services, exists in this district. Decentralizing the availability of essential obstetric

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services through health centres to community level is necessary to reduce maternal mortality in developing countries.

Introduction

The international community made a commitment in 1994 to make reproductive health care universally available by 2015. The commitment was affirmed by a special session of the United Nations General Assembly in July 1999. This commitment has to be backed up by resources, and the health profession has to provide the necessary knowledge and skill. The greatest burden of maternal morbidity and mortality exists in the rural areas of developing countries.[1,2] It is continued progress in these areas that will culminate in the achievement of overall goals. Monitoring progress at this level requires regular review of maternal health data, including data collected at health facilities. Such reviews would help to identify inadequacies and provide a basis for appropriate resource allocation, and could also help to identify training and manpower needs, identify priority areas for operational research, and guide the design of local safe motherhood initiatives. The findings of such reviews could also serve as a baseline against which to evaluate interventions aimed at improving care.[3–5]

The Kassena-Nankana district (KND) is located in northern Ghana in West Africa, and covers a land area of approximately 1685 km^2. Navrongo is the district capital. Most parts of the KND are essentially rural, with scattered villages and farm settlements that are accessed via untarred roads and footpaths. The population of the KND is estimated to be 142,000, and approximately 24% of the population are women of childbearing age. The majority of people in the KND are peasant farmers. Traditional beliefs and ancestral allegiance inform their way of life and health-seeking behaviour. The society is highly patriarchal and women are allowed very little autonomy. Low levels of literacy and limited mobility, combined with dispersed settlements, effectively isolate women in the KND from new ideas and institutions.[6] The crude birth rate in the KND is estimated to be approximately 30.8 per 1000 mid-year population, while infant mortality is estimated to be approximately 100 per 1000 live births (Navrongo Demographic Surveillance Report 2002).

The Navrongo Health Research Centre is located in the KND. Under the auspices of this centre, a number of research projects have been conducted within the KND. These have mainly been in the field of communicable diseases, such as malaria, schistosomiasis and meningitis. A reduction in Total Fertility Rate (TFR) by approximately one birth between 1995 and 1999 has been attributed to a large community health and family planning project undertaken by the Navrongo Health Research Centre.[7] No comprehensive programme in the area of safe motherhood has been instituted in the KND.

The structure for health delivery in the KND exemplifies the district healthcare approach. There is a district health management team that has overall responsibility for health delivery. The district hospital (the War Memorial Hospital) is centrally located and serves as the only referral facility. It has an all-purpose operating theatre where Caesarean sections and other surgical procedures are performed, and there is a 24 h blood transfusion service at the hospital. The district hospital has a senior medical officer who is assisted by other physicians. The maternity and gynaecology wards have three experienced midwives assisted by staff nurses. The hospital has 140 beds, 43 of which are in the gynaecology and maternity wards. Routine and emergency antenatal, delivery and postnatal services are offered in the maternity and gynaecology block of the hospital, and these are the only maternal health services available for women living within 15 km of the hospital. The road network within this radius of the hospital is good. Four health centres are located within communities in the geographical cardinals of the district, 35 km west, 9 km north, 27 km south and 3 km east of the district hospital. The health centres are equipped to offer basic preventive and curative services. These include antenatal, delivery and postnatal services. Medical assistants (non-physicians) are in charge of these health centres, and each centre has at least one trained resident midwife. Up until November 2003, there were no private health facilities in the KND.

In the KND, pregnant women attending antenatal clinics are given free iron, multivitamin and folic acid supplements and also receive chloroquine prophylaxis (policy changed recently) at each visit. High fertility levels (total fertility rate 3.9), high antenatal attendance (90%), low use of modern contraceptive methods (12%) and low use of skilled attendants