ORIGINAL RESEARCH ARTICLE

Review of Policies and Programs for Reducing Maternal Mortality and Promoting Maternal Health in Cross River State, Nigeria

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Abstract

The study was designed to determine the status of maternal health in Cross River State, a state in the Niger-Delta region of Nigeria with high rate of maternal mortality. The study consisted of analysis of clinical data, desk reviews of published and unpublished materials and interviews with policymakers and service providers. The results show that although 75.6% of pregnant women in the state attend at least one antenatal visit, only 34.8% are attended to by skilled birth attendants when in labour. Hospital based maternal mortality rate in the state over 11 years (1999-2009) averaged 1,513.4 per 100,000 live births. Human resources for health are 12 Doctors and 47.4 Nurse/midwives per 100,000 of the population. Obstetrics hemorrhage remains the most common cause of maternal mortality, while type III delay is the leading social cause of death. The state has relevant policies that address maternal health such as Free Maternal and Child Health and the national Midwives Service Scheme. However, budgetary allocation for maternal health is small. Deliberate efforts must be made to increase allocation and improve political commitment to reduce the high rate of maternal mortality in Cross River State (*Afr. J. Reprod. Health* 2010; 14[3]: 37-42).

Résumé

Analyse des politiques et des programmes pour la réduction de la mortalité maternelle et pour la promotion de la santé maternelle dans l'état de Cross River, Nigéria. Cette étude a été conçue pour déterminer la situation de la santé maternelle dans l'état de Cross River, un état qui se trouve dans la région de Niger-Delta du Nigéria qui a un taux élevé de mortalité maternelle. L'étude a compris de l'analyse des données cliniques, des révisions des documents publiés et des interviews avec des décisionnaires et les dispensateurs des services. Les résultats ont montré que bien que 75,6% des femmes enceintes dans l'état aillent au moins une fois à la Clinique prénatale, seules 34,8% sont soignées par les accoucheuses qualifiées pendant le travail. Le taux de mortalité maternelle qui se produit à l'hôpital dans l'état au cours de onze ans (1999-2000) était en moyenne 1,513,4 contre 100,000 naissances-vivantes. Les ressources humaines pour la santé étaient 12 médecins et 47,4 infirmières/sages-femmes par 100.000 habitants. L'hémorragie obstétrique demeure la cause la plus commune de la mortalité maternelle alors que le délai de type 111 est la cause sociale principale de la mort. L'état a des politiques pertinentes qui s'adressent à la santé maternelle tels les services de santé maternelle et infantile gratuits et le programme de services nationaux des sages-femmes. Néanmoins, les allocations budgétaires pour la santé maternelle sont minces. Il faut faire des efforts conscients pour augmenter les allocations et pour améliorer l'engagement politique qui permettront de réduire le taux élevé de la mortalité maternelle dans l'état de Cross River (*Afr. J. Reprod. Health* 2010; 14[3]: 37-42).

Key words: Maternal Mortality, Cross River State, Nigeria, Policies, Programs, Free Maternal Health Services.

Introduction

The world rose in Kenya in 1987 to draw attention to the dangerous nature of pregnancy and child bearing in many developing countries around the world[1,2]. It became evident that the family as the central nucleus of any society is being systematically eroded by an untold number of maternal deaths. Maternal mortality is a key indicator of a society's level of development and the performance of the health care delivery system. The majority of the causes of these deaths are preventable[1-4]. The World Bank statistics indicate that at least 144 women die each day from pregnancy-related complications in Nigeria, placing the country among one of the worst in the world for women to deliver babies. Currently, there exists a wide variation in rates of maternal mortality between the six geopolitical zones of Nigeria: the North East Zone has the highest rate of 1,549/100,000 live births, while the South

West Zone has the lowest rate of 165/100,000 live births[9]. There also exists marked urban-rural variation in maternal mortality rates: 351/100,000 in the urban as compared to 828/100,000 in the rural parts of the country[5].

Cross River State, one of the six states in the south-south geopolitical zone in the Niger-Delta region is no exception to this pattern of inequity. Available data puts maternal mortality ratio in the state at 831 per 100,000 live births[6]. The very poor maternal health indices in the Cross River State has been attributed to poor antenatal, intra-natal and postnatal practices, and to various socio-economic factors which place women at risk of adverse maternal health outcomes. The paradox remains that most of the deaths are preventable by simple, affordable and available technologies as well as attitudinal change, but the circumstances under which women become pregnant and deliver babies in the country remain a huge challenge. We hypothesize that without a demonstrable political commitment from the government to improve social and health infrastructures, it will be difficult to reduce maternal mortality in the state in the foreseeable future.

It was against this background that we sought to explore the current maternal health situation in Cross River State, and determine the priority accorded to the reduction of maternal mortality by agencies of Government and other stakeholders in the state. The review also aims to identify key steps being proposed for alleviating maternal health in Cross River State and make recommendations on ways to improve maternal health in the state.

Methodology

Study Population

Cross River State is located in the South-South geopolitical zone of Nigeria. The state expands from the mangrove vegetation of the south through the thick rain forest of the central senatorial zone to the savannah vegetation in the northern senatorial zone.

Cross River State is a large state with mountainous terrain in its northern parts. The state has a land mass of 20,156 square metres and is ranked the 19th largest state in the country[7]. The state has 18 Local Government Areas. It has 3 main languages (EFIK, BEKWARRA and EJAGHAM) with several dialects spread across the three senatorial zones. There are two tertiary hospitals (a Teaching hospital and a Neuropsychiatric Hospital), both located in Calabar, the state capital in the extreme south of the state. There are 14 secondary health facilities of which 10 are state-owned and 4 are mission-owned. The state has a total of 549 primary health centres and a total of 118 privately owned health facilities spread across the state[15].

Cross River State has a population of about 3,155,932 people; with a population growth rate of 2.99%, while 45.5 % of the population is rural dwellers[10]. About 22% of the population is of the reproductive age (15-49 years).

Data Collection and Analysis

This was a cross-sectional review conducted in the Ministry of Health of Cross River State and some in selected health facilities after clearance had been obtained from the Research and Ethics committee of the Ministry. In-depth interviews were conducted with key officers of the Ministry, including the Director of Planning, Research and Statistics, the Director of Public Health, and other designated officers. Records of available primary, secondary and tertiary hospitals as well as human resource for health obtained from the Ministry were reviewed. The number of health care providers in each Local Government Council was abstracted from the available records. In addition, the State Strategic Health Plan and budgetary allocations for health (and maternal health) in the preceding four years were reviewed.

The data were analyzed qualitatively and quantitatively (where relevant) to determine the nature of policies and programs that exist for addressing maternal health in the state.

Results

Maternal mortality in Cross River State

An 11 year review (1999-2009) of the state of maternal health in Cross River State revealed that the population of pregnant woman attending at least one antenatal care (ANC) was 75.6%, but only 34.8% were attended to by skilled birth attendant[11]. The state has a fertility rate of 6.15. HIV sero prevalence fell from 12% in 2003 to 8% in 2008[14]. The average maternal mortality rate during the period remained very high at 1,513.36 per 100,000 live births[6].

However, there has been a recent reduction in the rate of maternal mortality from 3,026.6 per 100,000 live births in 1999 to 831.41 per 100,000 live births in 2008. The figure rose slightly to 940.6 / 100,000 live births at the end of 2009[6].

Cross River State does not have community estimated rates of maternal mortality. Available figures are institutional based and are liable to be very high. Human resources for the health sector include 12 medical Doctors, 47 Nurses/midwives and 4 Community Health Extension Workers (CHEWs) per 100,000 populations[15]. However, these figures may be higher if data from the private sector is included.

Medical and social causes of maternal death

The common medical causes of death include obstetric haemorrhage, eclampsia, sepsis, prolonged /

Table 1. Statistics of population of women of Reproductive age: (Doctors, Nurses/Midwives, Community Health Extension Workers (CHEWs)) per Local Government Area (LGA) in Cross River State.

Local Government Area	Population of Women Aged 15-49 years	Medical Doctors	Nurses/ Midwives
Abi	55,240	3	37
Akamkpa	58785	3	65
Akpabuyo	112660	2	55
Bakassi	8,466	ND*	ND*
Bekwarra	30,583	ND*	ND*
Biase	58,488	3	30
Boki	65,457	ND*	ND*
Calabar Municipality	64,589	26	206
Calabar South	66,931	ND*	ND*
Etung	25,947	ND*	ND*
Ikom	54,350	2	6
Obubra	58,635	2	ND*
Obudu	53,920	3	55
Obanliku	32,635	1	49
Ogoja	62,187	5	165
Odukpani	67,120	ND*	ND*
Yala	85,141	3	49
Yakurr	59,786	7	70

No of CHEWS --------- 156
No of Traditional Birth attendants (TBAs)…**Not Known**
*No available data
Cal= Calabar
Pop= Population

obstructed labour, unsafe abortion, malaria, and anaemia in pregnancy, HIV/AIDS in pregnancy, hepatitis/jaundice in pregnancy and anaesthetic causes.

Social causes of maternal deaths include, delayed referrals from place of initial labour. This problem is compounded by the activities of Pentecostal churches and 'faith healers' who now conduct deliveries of their members in their churches[8]. Faith healers have spiritual explanations for all normal and abnormal physiological and structural states, particularly as related to pregnancy and labour. They contribute immensely to antenatal defaulting as well as negative perception towards medical care. Many of these churches manage emergency obstetric cases only to send them to the hospital to die when they are moribund. The spiritual belief of people has a serious impact on their health seeking behaviour.

Poverty is a major social cause of death in Cross River State. Most people are unable to afford the high user-fee for services. As a result, they end up in the hands of unskilled birth attendants[4].

Some health care providers do not have a sense of empathy sympathy for the patients, rather, they become judgmental and rude. This attitude scares the patients and discourages pregnant women from seeking appropriate care. Patients therefore resort to non orthodox care and in most cases, present with avoidable complications.

As shown in Table 1, the massive influx of highly skilled health manpower from both the primary and secondary health facilities of the state to the federal tertiary hospitals in Calabar has drastically reduced several folds, the number of doctors and nurses left to work in the remaining 17 Local Government Areas of the state.

Large sums of money have been voted for the renovation of almost all primary health centres in the state. The work includes water supplies through borehole and light through solar panels. This is being strengthened by massive rural road construction (720 km) by the state government. This is an attempt by the government to render rural dwelling more attractive and thereby attract the habitation of these areas by medical personnel as well. The implication is that the state is attempting to tackle types I and II delays in maternal death[1,9].

Existing Policies on Maternal Health

The Cross River State Strategic Health Development plan has specific programmes for maternal health. This plan was harmonized with the National

Table 2. Budget to the health sector (2004-2008).

Year	State Budget	Budget to Health	Amount Released
2004	46,608,333,333	559,300,000	NA
2005	35,860,344,110	1,546,796,400	NA
2006	39,241,017,450	1,727,171,940	28,920,000
2007	42,888,255,050	3,566,396,180	288,144,000
2008	102,208,129969	8,721,170,700	4,928,215,620

Plan in 2009. The state has a blue-print for Primary Health Care which emphasizes the provision of maternal health care at the grassroots. It is also on record that the state was one of the first to buy into the National Health Insurance Scheme (NHIS) and has also signed the Memorandum of Understanding for the Mid-wife Service Scheme (MSS). The state pays her counterpart funding of the programme including accommodation of the midwives. The state currently has a total of 64 midwives deployed by the Federal Government of Nigeria under the MSS scheme. These programmes (NHIS and MSS) are currently functional and have made positive influence on maternal health[5]. Moribund obstetric emergencies that usually emanate from primary health centres to the teaching hospital have reduced drastically and this has apparently contributed to the reduction trend in maternal mortality rate.

In addition, the state is currently discus-sing with the University of Calabar Teaching Hospital on the possibility of her consultants to utilize her secondary health facilities.

When this becomes functional, adequate coverage of maternal health issues will be ensured. The state has effective family planning facilities spread across the state. In this regard, safe motherhood campaign programmes have been incorporated into the recently introduced Integrated Maternal, Newborn and Child Health (IMNCH) programmes. All these are aimed at improving maternal health. In 2008, the state House of Assembly enacted a Law prohibiting child marriage and female genital cutting, with the hope that this will minimize the problems of teenage pregnancies.

Recently, the state legislators also approved the Governor's request for free antenatal, intrapartum and postnatal care. All pregnant women in the state are given free insecticide treated nets (ITNs) provided by the Roll Back Malaria (RBM) programme.

Some of the government health policies are Executive Council decisions that have no backup documents. Pro-Health, a Non Governmental Organization provides periodic outreach services within the state. This has huge impact on maternal health.

The State also collaborates with UNICEF in implementing various reproductive health, child health and immunization programmes. The World Bank and USAID Africa are also involved in some reproductive health programming in the state. The Roll Back Malaria initiative of the WHO is heavily involved in malaria prevention and treatment, while GHAIN is involved in the promotion of maternal health through HIV/AIDS prevention and treatment in the state.

The high maternal mortality in the state has received attention at both the state executive and legislative arms through regular condemnation of unacceptable high figures and general emphases on health manpower development. Legislation is underway from the State House of Assembly to make birth and death registration mandatory from ward to state level. There is also a renewed effort to employ more medical doctors and mid-wives.

Funding of Maternal Health in Cross River State

There are no specific funds made available for maternal mortality reduction. All funds pass through the State Strategic Health Development Plan (SSHP). However only 40% of the amount budgeted for health is usually released as shown in Table 2.

Information on the state budget for 2009 and the amount released to the health sector could not be obtained. The funds from private donor agencies and NGOs for reduction of maternal mortality are not known.

Costing of Free Maternal Health Care

The state free maternal health care program-me which was approved by the State House of Assembly is yet to take effect. It is pertinent to point out that this programme will be executed by the state Ministry of Social Services when it eventually takes off. The Ministry of Health provides technical support only. The impact of free maternal health care has not been felt yet since it has not taken off. Currently, what operates is fee for service. The average cost of antenatal services in the state is N8, 000.00 Naira (55.2 USD). An average delivery costs N5, 000.00 Naira (35.0 USD) while the average caesarean section cost is N18, 000.00 Naira (125.0 USD). These figures are averages of costs in both the Teaching Hospital and state General Hospital. Despite these minimal charges, the patients are most reluctant to purchase prescribed essential drugs, which will enhance rapid recovery from their hospital care.

Discussion

Maternal mortality is a major public health problem in Nigeria and the entire developing world[3,4,12]. The maternal mortality rates in Cross River state remain very high. Several policies exist within the state for the promotion of safe motherhood. However the end-use of these policies to achieve meaningful reduction of maternal mortality has been less than optimal. There is absolute need for these figures to fall to acceptable levels through concerted efforts of government, non-governmental organizations (NGOs) and individuals. The causes of maternal deaths as shown are medical and social. However, the human resources for health fall below acceptable level. Budgetary allocation to the heath sector is too small. Consequently, resource allocation to maternal health care though not specified is likely to be small (Table 2). This has a bandwagon effect on maternal health indices.

While the state may have a wonderful vision and mission towards the promotion of maternal health, her policy on free maternal health programmes is still in its infancy. There are also renewed efforts in family, community based and church based organizations in information dissemination on maternal and child health.

It is however pertinent to state that man-power development has been relatively poor compared to the massive movement of qualified medical staff from the state health sector to the Federal hospitals as a result of huge difference in salaries. This could pose a great threat to maternal health efforts in the state. Most highly skilled health manpower is concentrated in Calabar, the state capital. Thus the majority of the population lacks the needed skilled manpower. The level of motivation of the staff in the state health services is poor.

The state must therefore take urgent steps to bridge the salary gap between her staff and that of the federal health staff to stem the massive brain drain. There is also a need to go into a partnership agreement with the Teaching Hospital for the supply of manpower to her health sector in general and rural areas in particular.

Major Constraints

The major constraints in proper delivery of maternal health services in Cross River State include the Heath manpower brain-drain from the state health facilities to federal institutions located at the extreme of the state, low resource allocation to the heath sector, thereby negatively affecting maternal health fund allocation and poor information dissemination on maternal health issues. There is lack of effective collaboration between the state Ministry of Health and the tertiary hospitals in the state. This tends to create a very significant gap in maternal health programmes proposed by the state government.

Other variables such as perception and belief in superstition play major roles in maternal deaths in these parts of the world. The influence of faith based churches in maternal mortality is enormous in this part of the world. They contribute immensely to antenatal defaulting as well as negative perception towards medical care. Many of these churches manage emergency obstetric cases only to send them to the hospital when they are moribund to die. The spiritual belief of people has a serious impact on their health seeking behaviour[8].

Most deliveries and maternal deaths remain unknown and unreported. The only available records are from the teaching hospital.

Recommendations

There is need for increased budgetary allocation to the health sector with emphasis on maternal health. The state must as a matter of urgency, bridge the salary difference between her health workers and that of the federal health workers in order to reduce the current massive brain-drain. The state must also actively train her manpower in order to cushion the effect of brain-drain and expedite action on her negotiation with the teaching hospital to supply the needed health man-power to the secondary health facilities. The current efforts of the state in rehabilitation of the health facilities and rural road construction must be encouraged and sustained. There is an urgent need to stem up public enlightenment on maternal health issues through the media, community association, churches and community leaders must be encouraged. The state government must reinforce the existing law banning churches from interfering with medical cases and to criminalize non-reporting of any child birth or maternal death in any community.

Conclusion

It is our conviction that with the enthusiastic determination of the state Governor and adequate budgetary allocation to maternal health, the current situation is likely to improve. All efforts must therefore be geared through multifaceted approaches shown in this review to make motherhood safer in Cross River State.

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