ORIGINAL RESEARCH ARTICLE

An Assessment of Policies and Programs for Reducing Maternal Mortality in Lagos State, Nigeria

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Abstract

The objective of the study was to review the current state of policies and programs for attaining optimal maternal health in Lagos state, Nigeria. The methods consisted of in-depth interviews with key officials in the State as well as reviews of available health records. The results indicate high level commitment of the government towards achieving a reduction in maternal mortality. Maternal mortality ratio in Lagos state is below the national average. Nevertheless, the government has accorded the provision of maternal health a top priority and has made substantial allocations in the budget for its attainment. A maternal health advisory committee exists in the state, while antenatal care services are free to women within the public health sector. The state has also embarked on training of its workforce, while major infrastructural repairs in state public hospitals are ongoing. However, residual problems include the lack of access to services for women residing in hard to reach areas, rather uncoordinated inter hospital referral system, and women's lack of information relating to maternal health. Attention to maternal health education and women's empowerment would boost maternal health and reduce maternal mortality in Lagos state (*Afr. J. Reprod. Health* 2010; 14[3]: 55-63).

Résumé

Evaluation des politiques et des programmes pour la réduction de la mortalité maternelle dans l'état de Lagos. L'étude avait comme objectif de passer en revue l'état actuel des politiques et des programmes destinés à atteindre la santé maternelle optimale dans l'état de Lagos au Nigéria. Les méthodes ont compris des interviews en profondeur auprès des responsables clé dans l'état aussi bien que de passer en revue les dossiers de malades qui étaient disponibles. Les résultats ont montré un haut niveau d'engagement chez le gouvernement envers l'accomplissement de la réduction de la mortalité maternelle. Le rapport de la mortalité maternelle dans l'état de Lagos est inférieur au moyen national. Néanmoins, le gouvernement a donné une haute priorité à l'assurance de la santé maternelle et il a pourvu des allocations importantes dans le budget pour l'accomplir. Il y a un comité de conseil de santé maternelle qui existe dans l'état alors que les soins prénatals et des services d'accouchement sont gratuits pour les femmes dans le secteur de santé publique. L'état a également entrepris la formation du personnel alors que la réparation des infrastructures majeures est en cours. Néanmoins, il reste encore des problèmes tels le manque d'accès aux services pour les femmes qui habitent dans des endroits auxquels on a d'accès difficile, l'état mauvais des services d'orientation des sujets vers des spécialistes et le manque chez les femmes d'information relative à la santé maternelle. La santé maternelle sera avancée davantage si l'on fait attention à l'éducation de la santé maternelle et si l'on permet à la femme de s'assumer (*Afr. J. Reprod. Health* 2010; 14[3]: 55-63).

Key words: Maternal mortality, Lagos state, maternal health, health policies, programs.

Introduction

The World Health Organization defines a maternal death as "the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes"[1]. Of the 529,000 women estimated to die from pregnancy-related causes in year 2000, it is remarkable that the developed world contributed less than 1%.

The major direct causes of maternal mortality include haemorrhage, infection, hypertension, unsafe abortion and obstructed labour. Improving maternal health is one of the eight Millennium Development Goals (MDGs) adopted by the international community at the United Nations Millennium Summit in

2000[2]. In MDG5, countries committed themselves to reducing the maternal mortality ratio by three quarters between 1990 and 2015. However, between 1990 and 2005, the maternal mortality ratio declined by only 5%. Achieving MDG5 requires acelerating progress in promoting maternal health in developing countries.

A total of 99% of all maternal deaths occur in developing countries, where 85% of the population lives[1]. More than half of these deaths occur in sub-Saharan Africa, while one third occurs in South Asia. The maternal mortality ratio in developing countries is 450/100,000 live births as compared to 9/100,000 births in developed countries. Fourteen countries have maternal mortality ratios of at least 1000/100,000 live births, of which all but Afghanistan are in sub-Saharan Africa: Afghanistan, Angola, Burundi, Cameroon, Chad, the Democratic Republic of the Congo, Guinea-Bissau, Liberia, Malawi, Niger, Nigeria, Rwanda, Sierra Leone and Somalia[1].

Nigeria's maternal mortality rate remains unacceptably high[3]. Estimates indicate that an additional 1,080,000 to 1,620,000 Nigerian women and girls suffer each year from disabilities caused by complications during pregnancy and childbirth[4].

Lagos State, one of Nigeria's 36 states, also records high rate of maternal mortality. The UNFPA estimates that in 2009, maternal mortality in Lagos state was 400/100,000 live births[5]. The Ministry of Economic Planning and Budget also reports a similar maternal mortality ratio for the state[6], while the State Ministry of Health, provides a higher estimate of 650/100,000 live births[7].

Thus, it would appear that Lagos state has a lower maternal mortality rate as compared to the national average. Nevertheless, the Lagos state government is committed to reducing the ratio further, going by its current policies and programmatic efforts. Other health indices for Lagos state include an infant mortality rate of 85/1000 live births, an under-five mortality rate of 150/1000 live births, life expectancy of 55 years, and an HIV prevalence of 5.1%[6].

This study was designed to investigate and document the nature of the current policies and programs aimed at reducing maternal mortality in Lagos state. More specifically, the study was aimed at identifying whether any policies exist on user fees and the quantum of resource allocation for promoting maternal health in the state will be highlighted. We believe the results will be useful for identifying any additional measures that need to be taken to promote maternal health and reduce maternal mortality in the state.

Materials and Method

The study consisted of in-depth interviews conducted with officials of the Lagos State Ministry of Health. Interviewed were the Commissioner for Health, the Permanent Secretary and Directors in the supervising units under the Ministry. The Directors interviewed included those of the Reproductive Health and Family Planning Unit, Planning, Research and Statistics and the Director of Finance and Administration. The officials were interviewed with an unstructured interview guide which solicited information on issues relating to maternal health in the state, the nature of existing policies that promote maternal health, and information on specific activities that address maternal health in the state. Specific maternal health data were obtained from the Director of Planning, Research and Statistics, while information relating to budgetary allocations and actual financial disbursements allocations to maternal health programmes was obtained from the Director of Finance and Administration. We also asked questions on the impact or potential impact of programs that address the reduction of maternal mortality in the state.

Additional information on maternal health issues was obtained from the records of a previous consultative meeting of the zonal coordinator (under the aegis of the Society of Obstetrics and Gynecology of Nigeria (SOGON)/MacArthur partnership project on the reduction of maternal mortality) held with the Commissioner for Health and key ministry officials. Information was also obtained from the official website of the Lagos State government.

Maternal mortality ratios for the state were obtained from the Ministry of Economic Planning and Budget, UNFPA records and recent data from the office of the Permanent Secretary, Ministry of Health.

In addition, relevant data pertaining to Lagos State in the 2008 National and Demographic Survey report was obtained. The data were subsequently collated and analyzed for this report.

Results

Lagos state is the smallest state in Nigeria but has the highest population and highest population density. The 2006 national population census puts the population of Lagos state at 7,937,932 which was seriously contested and generally deemed as inaccurate. The more reliable population figure given by the Lagos State Government is 17,553,924, based on well conducted enumeration for social planning. Since the inhabitants of the metropolitan area of Lagos constitute 88% of the population, the population of metropolitan Lagos is about 15.5 million. The rate of population growth is about 275, 000 persons per annum with a population density of 2,594 persons per sq. kilometer. In the urban area of Metropolitan Lagos, the average density is 8,000 persons per square kilometer on average (up to 55,000 inhabitants per km^2 in the densest parts of the urban area). In a UN study of 1999, the city of

Lagos was expected to hit the 24.5 million population mark by the year 2015 and thus be among the ten most populous cities in the world.

The state is divided into 5 administrative divisions, which are further divided into 37 Local Government Areas. There are additional 20 Local Community Development Areas created by the state but which remain unrecognized as Local Government Areas by the Federal Government.

Current State of Maternal Mortality

The maternal mortality ratio of Lagos State is variously quoted as between 400 and 650 per 100,000 live births.

Medical and social causes of maternal mortality in Lagos State

Majority of maternal deaths in Lagos State between 1999 and 2003 (58.2%) were aged between 25 to 34 years.

As at 2008, Lagos state has 89.6% of her females as literate with about 80.8% attaining at least secondary school education. The total fertility rate among women aged 15 to 49 years is 4.0. As regards teenage pregnancy, the percentage of women aged 15 to 19 years who have begun childbearing is 5.3%.

The contraceptive prevalence rate is another maternal health indicator. Among women in the reproductive age group, 49.6% use modern contraceptive methods. While in 2004, 42.9% of women received antenatal care, by 2008, 87.6% of pregnant women received antenatal care from skilled providers in Lagos state. In terms of delivery in a health facility, 76.9% of women in Lagos achieved this, while 82.8% of women were delivered by skilled providers.

Pregnant women in Lagos state who had at least one problem accessing health care were 57.3%. A further breakdown in Lagos state shows that 2.1% had problems getting permission to go for health care, 39.7% needed money and 23.7% were discouraged by the distance they needed to travel.

Health facilities in Lagos State

The School of Health Technology was established to produce health personnel mainly for the implementation of the primary health care programme and in 2003 it was upgraded to the status of College of Technology. It continues to produce the following cadres of health personnel: Pharmacy technicians, Medical Records and Information Management Officers, Environmental Health Technologists, Community Health Extension Workers, and Community Health Officers. The School of Nursing, Midwifery and Public Health produces middle level health manpower for the state health facilities i.e. general nurses and midwives.

There are 21 secondary health facilities in the state. The Lagos State University Teaching Hospital, Ikeja (LASUTH), affiliated with the Lagos State University College of Medicine (LASUCOM) evolved from the old General Hospital Ikeja in the year 2001, was established in 1997 and has functioned as the state owned tertiary hospital. Other federal tertiary health institutions located in the state include the Lagos University Teaching Hospital, Idi Araba (LUTH) which has a full fledged Department of Obstetrics and Gynaecology and records about 1500 deliveries per annum, and the Federal Medical Centre Ebute Metta which provides maternal and child health services at tertiary level. The later records about 1000 deliveries per annum. The National Psychiatric Hospital Yaba is essentially for nervous disorders. It caters for pregnant women who need such services. The National Orthopaedic Hospital, Igbobi provides orthopaedic services to all and sundry including pregnant women with motorcycle accidents.

Health Policy in Lagos State

In the absence of a well-structured health insurance system, the government provides free health services through its free community-based primary healthcare services. The scope of the programme covers free registration and consultation for all, free treatment of children aged 12 years or below, free treatment of adults aged 60 and above and free antenatal care. However, delivery and postnatal care are not free and women have to pay fees for these services. The average cost for normal delivery and postnatal care is N12, 000.00($80.0) while the average cost for operative delivery and postnatal care is N50,000.00 ($330.0). Others include free treatment for malaria, free TB and leprosy treatment, free emergency service for the first 24 hours, free treatment for public servants, their spouses and four dependants aged 18 years and below as well as miscellaneous exemptions usually based on indigence. Other relevant policies include refund for local medical expenses and overseas medical treatment based on non-availability of needed service locally. The state also runs an impressive Lagos State Emergency Medical Service (LASEMS) and a Lagos State Ambulance Service (LASAMBUS). These policies have led to increased in-hospital utilization of general outpatient services and antenatal/delivery services.

In addition to all these, a Health Sector Reform Committee was inaugurated in August 2003. Among the various recommendations proffered by the committee and which are being implemented is the decentralization of hospital management, with each hospital having its own governing board and mana-

Table 1. Antenatal clinic attendances in four Lagos state maternity units between 2006 and 2008.

Facility	2006	2007	2008	% increase in 3 years
Ayinke House LASUTH	28,066	24,312	32,150	15%
Lagos Island Maternity Hospital	7,724	2,057	18,139	135%
General Hospital, Orile Agege	5,035	11,108	15,880	215%
General Hospital, Isolo	8,756	10,363	14,249	63%

gement committee and a reasonable measure of financial autonomy. As a fall out of the reform, the Ministry embarked on the improvement of the managerial capacity of the top management of hospitals, communication to key audiences, development of financial management systems, constitution of an inter-ministerial committee on health management information system and the development of a monitoring system. The government is preparing a bill to submit to the State Legislative Assembly to transform these reforms into law.

Policies on reduction of maternal mortality

As mentioned above, the state has free antenatal care which includes Intermittent Preventive Treatment (IPT) of malaria, insecticide treated nets (ITN) and routine drugs for pregnant women in public health facilities. Other than these, there are no specific documented policies on the reduction of maternal mortality even though a lot of programmes exist which are tailored towards maternal mortality reduction.

For example, since 1999, the state government had shown a firm commitment to implementing programmes geared towards the reduction of maternal mortality. Some of these programmes include free registration and consultation in all public hospitals, free antenatal services (including free routine haematinics) and free treatment of malaria.

In 2008, in order to address the issue of maternal and child health, the Ministry of Health set up an Advisory Committee on maternal mortality reduction made up of stakeholders from the Society of Gynecology and Obstetrics of Nigeria (SOGON), Lagos State University Teaching Hospital (LASUTH), Lagos State Blood Transfusion Committee, Lagos State Traditional Medicine Board, Lagos State Primary Health Care Board, Local Government Service Commission, Ministry of Local Government and Chieftaincy Affairs, Ministry of Women Affairs and Poverty Alleviation, Ministry of Education and officials from Ministry of Health. They developed a five year work plan which included specific strategies and approaches for reducing maternal mortality in the state. The state has presently commenced implementation of the work plan.

Other available programmes related to maternal mortality reduction in the state include the training of health workers in Emergency Obstetric Care (EMOC). Under this programme a total of 93 health workers from the Local Government Areas of the state were trained in EMOC. The idea was to ensure that primary health facilities are serviced by trained personnel who have skills in emergency obstetrics. This was complimented by a scheme to provide emergency obstetric equipment for primary and secondary health facilities, which led to the equipping of a total of 57 Primary Health Centres (PHCs) offering 24 hour services. All health facilities in the state were provided with misoprostol tablets for the prevention and treatment of primary post-partum haemorrhage and magnesium sulphate for prevention and treatment of eclampsia. In addition, under the SOGON-MacArthur Safe Mother-hood partnership in Lagos State, focal trainings on the use of magnesium sulphate and misoprostol were carried out at LASUTH and Orile Agege General Hospital. Quantities of the drugs were donated to these facilities. Community Awareness and Sensitization campaigns were carried out in all the local government areas. Behavior change communication (BCC) materials were also produced and distributed to health facilities and the grassroots to create awareness on maternal health. Due to several years of neglect of the primary and secondary health facilities, it was considered desirable to renovate and upgrade them. In addition, ultramodern Maternal and Child Health Centres were constructed in seven Local Government Areas of the state. For all pregnant women registered in the state public facilities, they have access to IPT and ITN for the prevention of malaria. Both are given free of charge. One of the ways in which the blood banks in the state hospitals ensure that cross matched blood is always available is via the policy whereby husbands of intending antenatal patients are made to donate a pint of blood. This arrangement operates in almost all the Lagos state maternity units. It is supposed to serve as insurance for the women in the event that they may need blood transfusion before or after delivery.

Impact of maternal mortality reduction programmes in two major Lagos state obstetric units

Table 1 shows the patterns of antenatal clinic attendance at the four busiest maternity units in Lagos State between year 2006 and 2009. All the four units recorded varying degrees of increased antenatal attendance during the period of the study.

In trying to assess the impact of maternal morta-

Table 2. Number of deliveries, maternal deaths and maternal mortality ratios at LIMH and Ayinke House. A comparison between two periods (1999-2003 vs. 2009).

	LIMH 1999-2003	Ayinke House 2009	LIMH 1999-2003	Ayinke House 2009
No. of Deliveries	7042	2181	13467	2062
No. of Maternal Deaths	519	117	263	48
MMR	7370	5365	1953	2328

lity reduction programmes implemented in Lagos State between the year 2003 and 2008, the number of deliveries, maternal deaths and maternal mortality ratios in two of the busiest maternity units in Lagos State, Lagos Island Maternity Hospital and Ayinke House, Ikeja, were compared (Table 2). As shown, there was a 27.2% reduction in maternal mortality ratio (MMR) at the Lagos Island Maternity Hospital in the period studied. By contrast, there was there was a 19.2% increase in MMR at the Ayinke House, Ikeja.

Involvement of Development Partners in Maternal and Child Health

A number of development partners work with the Lagos State government. In the course of this study it was discovered that all partners channel their efforts through the Technical Aid Department of the state Ministry of Economic Planning and Budget. The UNFPA provides equipment for emergency obstetric care, organizes advocacy visits to key policy makers and traditional rulers in the state, conducts training of health workers on life saving skills and produces job aids at the primary health care and ward levels. In addition, it conducts regular supervisory visits to the health facilities, trains health workers on programme management and is involved in the sensitization and empowerment of Community Development Committees.

The UNICEF organizes IMCI activities in the state, as well as nutrition and medication activities. The MacArthur Foundation in partnership with SOGON engages in the training of health workers in the evidence based interventions to reduce maternal mortality e.g. magnesium sulphate, misoprostol, anti shock garment. It also makes regular supply of drugs and materials to selected health facilities.

Pathfinder International organizes regular training of nurses and doctors in secondary and tertiary health facilities in the application of anti shock garment. It also supplies quantities of anti shock garment to selected health facilities. JICA activities in Lagos state essentially revolve around developing the capacity of health workers for implementing maternal and child health care and establishing appropriate relationships between PHC and community (including an efficient referral system), thereby improving maternal health service delivery at the primary health care (PHC) level and increasing in the usage of PHC.

Status of financial allocation (budgetary and actual) to maternal and child health programmes in Lagos state.

Table 3 shows the funds available from the Year 2007 to Year 2009 capital and recurrent budgets for maternal mortality reduction programmes.

Major Constraints facing maternal health in Lagos State

A critical analysis of the maternal health situation in Lagos State reveals certain major constraints. To start with, the rather large population in the state leads to very high demand for maternal health services. This is compounded by the inadequate number of available hospital beds relative to the population in the state.

There is a relatively high level of illiteracy and poverty among the inhabitants of rural Lagos leading to low or non-utilization of available maternal health services. In addition, the peculiar topography of the state results in a large percentage of the population residing in riverine areas that is al-most unreachable except by navigating the water-ways.

Over the years due to many years of acute neglect and lack of upgrade, the citizenry had lost confidence in the primary health system. This is made worse by the in availability or poor availability of skilled personnel at the primary care level to deal with obstetric emergencies.

In Lagos state the cost of maternal health services especially operative deliveries is still relatively high. A duly registered pregnant woman only enjoys free antenatal care services including routine drugs and antimalarials but is required to pay for delivery whether normal or operative.

It was also noted that there is a low utilization in public and private health facilities of the evidence based interventions to reduce maternal mortality e.g. Magnesium Sulphate, Misoprostol, anti shock garment. Allied to this is also a low utilization of standard obstetric protocols to manage common obstetric emergencies.

The referral system between primary, secondary and tertiary facilities is not properly coordinated.

Table 3. Capital and Recurrent budgets for Lagos State relating to maternal health between 2007 and 2009.

Budgetary Item	Amount Budgeted	Amount Spent
Year 2OO7		
Construction of four storey Paediatric Ward in LASUTH	N353,925,223.85	N353,925,223.85
Year 2008		
Construction of four storey Maternal and Child Health Complexes at Ikorodu, Isolo, Ifako Ijaiye General Hospitals	N1,346,565,901.20	N1,346,565,901.20
Supply, installation and commissioning of hospital equipment and furniture for five (5) Maternal Health Complexes at Ikorodu, Isolo, Ifako Ijaiye, Ajeromi General Hospitals and Gbaja, Surulere	2,249,733,592.34	2,249,733,592.34
Construction of four storey Maternal & Child Health .Complexes at Ajeromi General Hospital and Gbaja	1,153,231,539.12	1,153,231,539.12
Supply, installation and commissioning of hospital equipment and furniture for Amuwo odofin Maternal Health Complex	576,615,769.56	576,615,769.56
Supply, installation and commissioning of hospital equipment and furniture for Amuwo odofin Maternal Health Complex	385,626,187.79	385,626,187.79
Construction of four storey Maternal & Child Health Complexes at Amuwo odofin General Hospital	576,615,769.56	576,615,769.56
Procurement of echocardiogram and GE Voluson 730 Ultrasound 3D Static/4D Real time imaging for Ayinke House	42,450,450.00	42,450,450.00
YEAR 2009		
Procurement of Equipment for the Critical Care Unit and Ayinke House, LASUTH (Upward review)	17,017,178.59	17,017,178.59
Procurement of 500 KVA generator for Ayinke House	N14,552,978.48	N14,552,978.48
Public Health Project vote for the equipping of the primary health centres	N160,000,000.00	N128,416,020.00
Family Planning vote for the Community sensitization, training of health providers oh family planning technology and training of health workers on emergency obstetric care	N5,000,000.00	N5,000,000.00
Roll back malaria vote for procurement of IPT drugs, ITNs and training of health workers	N98,000,000.00	N61,258,830.00
Construction of maternal and Child Health Complex at Alimosho General Hospital	N637,744,656.03	N637,744,656.03
Construction of maternal and Child Health Complex at General Hospital, Eti Osa, Lekki.	N761,731,933.44	N761,731,933.44
Equipment for MCC,s at Alimosho and Eti Osa General Hospitals	N1,183,054,167.00	N1,183,054,167.00
Dismantling of existing lifts, purchase, installation and commissioning of two bad lifts at Lagos island Maternity Hospital.	N47,922,938.00	N47,922,938.00
Community based survey on maternal mortality	N21,419,200.00	N21,419,200.00
Procurement of operating laparoscope with diathermy for LASUTH.	N10,765,538.00	N10,765,538.00
Procurement of colposcope for LASUTH	N2,874,586.00	N2,874,586.00
Delivery/Labour ward equipment	N28,005,000.00	N28,005,000.00
Paediatric equipment	N10,500,000.00	N10,500,000.00

This leads to delays in attending to referred cases. There is no identifiable central blood banking service. As such different hospitals own and manage their mini blood banks.

Finally, there are an inadequate number of physician and nurse anaesthetists. A number of the secondary health facilities cannot boast of designate nurse or physician anaesthetists covering emergency obstetric services. However it was observed that the state government in response to this gap had recently set up a training centre for anaesthetists in partnership with a private organization.

Discussion

Lagos State is cosmopolitan in nature and with a population density of 2594 persons per square kilometre is perhaps the most densely populated state in Nigeria. Since the beginning of the current democratic dispensation, the health policies of Lagos State, especially the free health policy for under 12 and over 60's had led to an upsurge in the outpatient attendances and ward admissions in Lagos State hospitals. For instance in the year 2006 in Lagos State public hospitals, there was a total of

10,571 obstetric admissions and 61,777 antenatal clinic attendees. In the local government health facilities, the total number of antenatal attendees was 182,670. Furthermore, workers at the Lagos Is-land Maternity Hospital in response to in depth inter-view questions posed by researchers for the SOGON needs assessment survey of 2004, did say that maternal mortality rate in the hospital was increasing steadily through the years because of the large number of women presenting in labour as unbooked emergencies[8].

It must be acknowledged that Lagos State is uniquely positioned for an overstretching of its health facilities, particularly those pertaining to maternal health. This is because of it enormous population and its relatively small geographical area. It is compounded by a daily influx of migrants from other parts of Nigeria. To make matters even worse a large portion of the land mass is in the riverine areas with its particularly difficult accessibility[9].

The quoted maternal mortality ratio for the state of between 400 and 650 per 100,000[5,6,7] appears to be quite reasonable compared with the national average of 1000 per 100,000 live births[10]. In comparison to other states, it is much better than in Borno state with MMR of 1100 per 100,000[10], Enugu state with an MMR of 1400 per 100,000[11], Kano state with 1600 per 100,000[12] and Cross Rivers State with MMR of 1513 per 100, 00013. The relatively low MMR recorded in Lagos State most likely reflects the overall response of the maternal health indices to all the interventions which the state authorities had put in place for the reduction of maternal mortality. Some of the more recent examples are the training of local government nurses and midwives in Life Saving Skills as well as the construction of six integrated maternal and child care centres in the state. These ultra modern units are equipped with state of the art equipment and in addition various cadres of personnel have been recruited.

The age bracket of the majority of women who died at childbirth in Lagos State[10] tallied with the age bracket of women at the peak of their reproductive careers. This is expected.

The literacy rate of 89.6% compared to an overall female literacy rate of 4.8% in Katsina State and 93.3% in Imo State[10] places Lagos State in the category of states with relatively high literacy rates. Being a cosmopolitan city, it is expected that most of the females would attain a minimum of secondary education. This state of affairs is also probably contributory to the relatively better maternal health indices in the state. For example the total fertility rate in the state is the lowest in Nigeria[10]. The state also has a relatively low teenage pregnancy rate of 5.3% compared to 51% in Bauchi state and 19.7% in Oyo state. Lagos State also has the highest prevalence of contraceptive use in Nigeria[10].

There was a substantial increase in the percentage of women who received antenatal care from skilled providers in Lagos State between the years 2004 (42.9%)[8] and 2008 (87.6%)[10]. A closer examination of this finding revealed the coincidence of its occurrence with the peak of the implementation of the free antenatal care programme of the state. When compared to the situation in Zamfara state with a percentage of 13.1%[10] the margin is quite wide. On the other hand however, 97.7% of women in Anambra State had access to antenatal care from skilled providers in 2008[10]. It is a well known fact that men of the Igbo extraction place a very high premium on the utilization of available health facilities both for themselves and also for their wives. Closely related to the above and foregoing is a relatively high rate of delivery in a health facility (76.9%) and by skilled providers (82.8%) among women in Lagos State[10]. Again, Igbo women, this time in Imo state, had a higher rate of delivery by skilled providers.

Types I and II delay were quite evident in Lagos State. This was exemplified by the relatively high percentage of women who had at least one problem accessing healthcare. In Lagos State, there were problems getting permission to go for health-care as well the problems of distance and finance[10]. This situation corroborated the result of the SOGON coordinated needs assessment survey of 2004 which showed that the types and causes of delays relating to maternal deaths in Lagos state had delay in seeking care by women (Type I) as the commonest occurring in 41.6% of women[8]. It is difficult to explain this finding in a state where about 21% of women in the reproductive age group have more than secondary education[10] Following this was difficulty in transportation (Type II) in 18.6%. It has to be borne in mind that a large percentage of the population in Lagos state is in the riverine areas where access is only via the waterways[9]. Type III delay accounted for only 14% of cases[8].

The results of the SOGON coordinated needs assessment survey of 2004 also showed that in the three facilities studied in Lagos state, eclampsia was the leading cause of maternal mortality (26.2%) followed by sepsis (24.7%) obstructed labour (9.3%) and postpartum haemorrhage (9.1%)[8]. It is safe to assume that the leading position held by eclampsia would have been surrendered to haemorhage in view of the advent of Magnesium sulphate in Lagos state hospitals.

Only 37.9% of the women were admitted in primary labour in the same hospital while 62.1% of the women were referred from other hospitals. The most common source of referral was private hospitals accounting for 63.5% of the referrals. Other sources of referrals included private maternity homes administered by nurse/midwives while TBA / herbal homes referred 7.7% of the women[8].

A look at the spread of health facilities offering

maternal health services in Lagos State would indicate that there is an even spread throughout the urban and rural parts of the state. It remains doubtful though if the expected standards of care are applied in all the facilities. For example, most of the facilities do not avail themselves of the use of evidence based, effective interventions for the reuction of maternal mortality. To illustrate, the use of the anti shock garment, Magnesium Sulphate and Misoprostol can only be confirmed in a few of the health facilities.

Since the inception of democratic governance in 1999, Lagos State has had the benefit of a robust and citizen oriented healthcare policy. In recognition of this, the state government and in particular the Ministry of Health won a number of national and international awards. The Free Health Policy for the under aged, vulnerable and the older citizens had consistently been implemented up till the present time. The State Ambulance Service is also a model showpiece which a lot of other states had tried to emulate.

The recurring criticism of the free health policy of the state had always been sporadic shortages of drugs and medical consumables in the free health windows of the public hospitals. This situation may be explained by the very high demand for these free services. There is no system in place yet to ensure that only tax paying Lagos residents benefit from these schemes. As a result it had been observed that people migrate even from neighboring states just to avail themselves of the opportunities offered by the schemes. In addition certain unscrupulous citizens falsify their ages just to fall into the brackets covered by the free health scheme, thus overburdening the arrangement. The issue of under funding of the scheme cannot however be completely ruled out.

Even though there is no documented policy on the reduction of maternal mortality by way of an article of faith in Lagos State, various pronouncements and public statements made by the Executive Governor, Honourable Commissioner for Health and other state government officials had consistently shown a firm commitment to the reduction of maternal mortality in the state. The various programmmes that had been put in place and implemented also attest to this commitment. Prominent among these include the institution of the Advisory Committee on maternal mortality reduction, the training of midwives and doctors working in the PHCs in Life Saving Skills, establishment of ultra modern Maternal and Child Care Centres as well as the training of some doctors and nurses in the use of evidence based interventions for the reduction of maternal mortality like anti shock garment, Magnesium Sulphate and Misoprostol. There was an attempt to justify the impact of the programmes for the reduction of maternal mortality in the state by examining the maternal mortality ratios recorded in two of the busiest maternities between the years 2003 and 2008. While one of the units recorded a significant reduction, the other recorded a rise[8]. This was attributed to the change in status of the latter from a secondary care facility to a tertiary care facility with the attendant upsurge in the number of referred cases, some of which were in extremis. By and large, the state is not short of programmes but a lot still needs to be done in the area of monitoring the implementation of the programmes.

The thrust of the healthcare policy in Lagos state generally favours the promotion of maternal health. However considering that all a pregnant woman can hope for is free consultation and free routine drugs, it is felt that a lot more could still be done in this regard. A lot of the women who patronize the public maternity units still have problems in accessing health care due to lack of funds. According to the National Demographic and Health Survey of 2008, 39.7% of women in Lagos state could not access health care due to lack of funds[10]. It should be possible in the near future for normal and operative deliveries in the public facilities to be subsidized by the state government.

There is apparently a beehive of partner activities in maternal health in the state. It was observed however that there are overlaps and duplications in partner activities.

Also, partner funding is administered by the Ministry of Budget and Economic Planning.

The financial allocations to maternal health in Lagos State were described as under funding by key ministry of health officials. This is probably a reflection of the general cuts made in the budget in the past few years. It must be remarked however that within the available budgetary allocations, a lot of visible infra structural and equipment development had taken place.

Recommendations

There is a great deal of government commitment to the issue of reduction of maternal ,mortality in Lagos State but there are still quite a number of positive interventions that need to be embarked upon.

The cumulative reach of maternal health services is still below expectation, confined mainly to the urban areas of the state. This calls for rejuvenation and upgrading of the primary health system in the state. The citizenry will then not need to travel long distances to access essential obstetric care.

Closely allied to this is an urgent need to increase the transportation network to the riverine areas which remain largely unreached as at the present time. This will ensure that the inhabitants of these areas can easily be transported in case of referrals to secondary or tertiary facilities.

The cost of emergency obstetric care in Lagos State needs to be addressed. Operative deliveries should be completely underwritten by government or in the least substantially subsidized. These will enable a lot more women access maternal health care at both secondary and tertiary levels.

The medical and nursing personnel working in the maternity sections of the secondary facilities in the state need to be trained in the application of the evidence based interventions to reduce maternal mortality.

The referral system within all levels of health facilities in the state need to be more properly coordinated. This will necessarily involve a massive upgrading of the communication and ambulance systems in the facilities. A zonal arrangement whereby referrals from certain primary health facilities can only be referred to secondary facilities within the zone can be considered.

It is considered expedient that the resuscitation of training of nurse anasthetists in the state should immediately commence. The global shortage of physician anaesthetists especially in low resource countries like Nigeria makes such an imperative.

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