

The Hidden Cost of 'Free Maternity Care' in a Low-Resource Setting in South-Eastern Nigeria

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Abstract

Context: Comprehensive prenatal care impacts positively on both maternal and perinatal outcomes. Free maternal health care policy in a tertiary health institution improved access to antenatal care and resulted in a 5-fold decrease in maternal mortality rates. Current uptake of services is declining and the reasons for this are unclear.

Objective: This study was done to ascertain some of the hidden costs of the free maternity care provided by our teaching hospital.

Study Design/Subjects: This cross sectional study that spanned six months involved consecutively recruited postpartum mothers at the Ebonyi State University Teaching Hospital (EBSUTH) who were interviewed with a pre-tested questionnaire to collect information on medical expenses incurred during their pregnancy through delivery.

Main Outcome Measure: The total amount spent on purchase of medical services as well as opportunity cost for seeking institutional care during pregnancy and childbirth.

Results: The mean monthly income of the respondents was N19,627.00 only [US\$1 = N120 approx], 30.2% earned less than the Nigerian national minimum wage of N7,500.00 per month. The mean hidden cost for vaginal delivery was N8,315.00 and N21,820.00 for Caesarean delivery. Overall, 26.1% of families spent between 51-100% of their monthly income, while 15% spent 1-3 times their monthly income on maternity care.

Conclusion: There is need to further reduce these hidden costs to ensure service utilization in a population trying to overcome poverty

Key Words: Cost, Maternity Care, Income, Spending, Poverty

Introduction

Almost two decades after the launching of the Safe Motherhood Initiative (SMI) in Nairobi Kenya maternal health indices in developing countries are worsening^{1,2}. The SMI policy has been poorly implemented and access to family planning services, prenatal care, clean and safe delivery as well as essential obstetric care is limited in many developing countries³. Economic consideration has been identified as a major constraint⁴ and impacts negatively on obstetric outcome.

The introduction of free maternity care in this centre in February 2001 resulted in an astronomical increase in the number of obstetric patients and improved utilization of antenatal care and emergency obstetric care. Preliminary assessment of the programme showed a five-fold decrease in maternal mortality the year after, compared with the year before the introduction of the policy⁵. The maternity care services are free from booking through antenatal period, delivery, to the postnatal clinic and covers routine investigations and drugs. It does not, however, include services such as admissions for medical or surgical complications of pregnancy, blood transfusion, some specialized investigations and early neonatal intensive care. There are also some opportunity costs to the patients in terms of forgone daily income and they also pay for out-of-stock drugs. These 'hidden costs' may limit access to obstetric care in a low resource setting. Current uptake of services seems to be declining and

the reasons for this are unclear. The hidden costs may be contributing to this situation. This study was undertaken to determine the out-of-pocket expenses incurred by beneficiaries of the 'free maternity care' programme of the Ebonyi State Government in Nigeria.

Materials and Methods.

This study was a cross sectional survey of booked 775 consecutive postpartum mothers admitted to the postnatal ward of EBSUTH, Abakaliki over a six-month period (April to October 2005). Ethical clearance was obtained from the institutional Ethical and Research committee and respondents gave their consent before being recruited into the study. The respondents were interviewed with a structured questionnaire about expenditure on medical supplies, investigations, opportunity costs, transportation costs, additional food costs while in the hospital, blood transfusion services, early neonatal care as well as family income and sources of finance. The questionnaire had been pretested on 20 postpartum mothers in January 2005, and modified to ensure clarity and accuracy. The antenatal records of the respondents were also examined. Mothers with medical and surgical complications in pregnancy were

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excluded from the study. Data was analyzed using Epi-Info statistical software programme version 3.3.2. Univariate analysis was done and results presented in simple frequency tables and proportions.

Results

Seven hundred and seventy-five out of the total of 913 postnatal mothers (84.9%) admitted into the ward during the study period were recruited consecutively. The socio-economic status of the respondents, shown on Table 1, revealed that 28.0% and 26.4% belonged to the lower segments of the society, social classes 4 and 5 respectively. Twelve were of social class 1. The mean monthly income of respondents' families was N19,627.00 [US\$1 = N120 approx]. Two hundred and thirty-four respondents (30.2%) earned less than the national monthly minimum wage of N7,500.00 [approximately US\$62], while 11 (1.4%) earned over N100,000.00 monthly. Seven hundred and twenty seven (93.8%) of the respondents depended on others for financial security: 86.1% on their husbands and

7.7% on extended family members. Those unemployed constituted 38.8%. Six hundred and one mothers (77.5%) lived in urban areas while 174 (22.5%) were rural dwellers.

Six hundred and thirty-one (81.4%) postpartum mothers delivered via the vaginal route while 144 (18.6%) delivered by caesarean section. The estimated additional costs incurred by beneficiaries of free maternity care in EBSUTH, Abakaliki according to mode of delivery are shown in Table 2. The mean additional cost for vaginal delivery was N8,315.00 and for Caesarean section N21,820.00. Items that contributed to these costs included transportation, blood transfusion services and neonatal care.

Expenditure on maternity care as a percentage of family income is shown on Table 3. Overall, 26.1% spent between 51-100% of their monthly income while 13% spent 1-3 times their monthly earning on maternity care.

Table 1: Socio-Economic Classes of the Respondents

Characteristics	Number	%
<i>Social Status</i>		
1	12	1.5
2	133	17.2
3	209	27.0
4	216	27.9
5	205	26.4
<i>Average family income per month (Naira)</i>		
<7,500	234	30.2
7,500 25,000	389	50.2
25,000 50,000	108	13.9
50,000 100,000	33	4.3
>100,000	11	1.4
<i>Sources of financial support during pregnancy</i>		
Self	48	6.2
Husband	667	86.1
Others (Extended family, community)	60	7.7
<i>Employment Status</i>		
Salaried	144	18.6
Unemployed	293	37.8
Self-Employed	338	43.6

Table 2: Additional Cost by Mode of Delivery

Items	Normal Delivery: 631 (81.4%)			Caesarean Section: 144 (18.6%)		
	Number (%) With Expenses on Item	Range of Cost (₦)	Mean (₦)	Number (%) With Expenses on Item	Range of Cost (₦)	Mean (₦)
Transportation	631 (100)	480-1600	720	144 (100)	780 -2200	1250
Lost Daily Income	240 (38.1)	400-4000	1020	96 (66.7)	300 -2700	1070
Investigations	108 (17.1)	20 -1500	120	144 (100)	20 - 2400	700
Blood Transfusion	42 (6.7)	200 -6500	700	121 (84)	1600 -8100	6800
Medication	90 (14.3)	200 -9000	350	55 (38.2)	600 -9000	450
Ultrasound Scan	528 (83.7)	-600	600	126 (87.5)	600	600
Consumables in Labour	366 (58.0)	900 -4000	3350	144 (100)	1500 4800	3600
Neonatal Care	27 (4.3)	200 -800	255	65 (45.1)	500-60000	5800
Feeding i n Hospital	42 (6.7)	250 -1600	800	7 (4.9)	600 -2000	1350
Tips	9 (1.4)	200 -500	400	5 (3.5)	200	200
Aggregate	631(100)	20 -9000	8315	144 (100)	20-60000	21820

Table 3: Expenditure on Maternity Care as a Percentage of Family Monthly Income

Percentage Expenditure	Vaginal Delivery N (%)	Caesarean Section N (%)	Total N (%)
≤ 50%	430(68.1)	43 (29.9)	473(61.0)
51 -100%	127(20.1)	75 (52.1)	202(26.1)
101 -300%	74 (11.8)	26 (18.1)	100(12.9)
Total	631 (100)	144 (100)	775(100)

Discussion

Majority of postpartum mothers involved in this study (54.3%) were of the lower socio-economic status. Similar findings have been reported in other free maternity care programmes^{3,6}. Low socio economic status precipitates poor health seeking behaviour and encourages patronage of quacks, traditional birth attendants (TBAs), spiritual homes among others with the antecedent delay before eventual presentation in orthodox health facilities, resulting in high maternal morbidity and mortality rates. It was therefore not surprising that with the elimination of major areas of cost the women of lower socio economic status predominated in the maternity unit.

Almost 94% of the respondents depended on others for their health care needs. In the prevailing economic situation of the country this impacts negatively on the health seeking behaviour of patients. The over bearing influence of the male in decision making on reproductive health matters complicates this scenario. There is therefore an urgent need for women empowerment through encouraging girl-child education and gender equity.

Antenatal Care (ANC) has been proven to reduce maternal mortality by preventing and treating its major causes^{6,8}. There is need for improved access to prenatal

care in the presence of stiff competition from TBAs who are well integrated within the rural and poor communities providing affordable services at all times. This is possible through further reduction or elimination of hidden costs of free maternity care. The hidden costs that militated against the objectives of free maternity care were in areas of transportation and opportunity costs. The average number of antenatal visits per pregnant woman in the centre was six with a range of two to ten visits⁸. Others included high cost of blood transfusion services and early neonatal care services. Similar findings have been made in Bangladesh³ A unit of blood costs N1,600.00 and between N6,100.00 and N8,100.00 for patients who provide donor and those without donors respectively. This situation is further aggravated by the hospital policy of group and cross match instead of group and save¹⁰. Early neonatal care is another aspect of intensive cost. Neonatal care services are recognizably high even internationally¹¹, but in a low resource setting like ours could hinder women from utilizing the programme of free maternity care.

There is global effort towards reducing maternal mortality and morbidity¹² This is possible in a setting

where health care services are both accessible and affordable. The free maternity care programme in this centre was established with these objectives in mind. Preliminary assessment by Egwuatu in 2003⁵ revealed a five fold reduction in maternal mortality in the first year of the policy. In a society where health demands are met by out-of-pocket expenses, family budgeting is often distorted by unplanned spending on health care. It was worrisome to note that over 26% and almost 13% respectively of the respondents spent 52-100% and 101-300% of family monthly income on maternity care. Higher figures have been found in South Asia³. This is even more worrisome when this occurs in a setting of free maternity care programme. The implication of this is that resources meant for primordial needs of the family such as food, shelter and education would have

to be diverted to health care services.

Conclusion/Recommendation

The hidden cost of free maternity care in this centre is enormous. In a developing country like Nigeria, the economic burden on the government may be substantial and commendable programmes like this may not be sustained effectively. A partnership between government, the organized private sector, non governmental organizations and donor agencies is advocated for sustained reduction in maternal mortality by enhancing access to prenatal care and safe delivery services in a low resource setting. There is also need to adopt the new WHO antenatal care model with reduction in the frequency of antenatal visits in low risk cases, review the hospital's blood transfusion policy and provide free neonatal intensive care services.

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