

ASSESSING THE USE AND COST OF HEALTHCARE SERVICES AND CATASTROPHIC EXPENDITURES IN ENUGU AND ANAMBRA STATES, NIGERIA

The research presented in this policy brief was conducted by Obinna Onwujekwe, Benjamin Uzochukwu, and Chima Onoka of the Health Policy Research Group based at the College of Medicine in the University of Nigeria. The authors are part of the Consortium for Research on Equitable Health Systems (CREHS) and funded by the Department for International Development, UK.

This policy brief is based on a research report, "Benefit incidence analysis of public health services and financing incidence analysis of household payments for healthcare in Enugu and Anambra states, Nigeria." The report is available on the CREHS website: <http://www.crehs.lshtm.ac.uk>

For more information about this publication please contact:
Obinna Onwujekwe
Email: onwujekwe@yahoo.co.uk

INTRODUCTION

Healthcare in Nigeria is financed from a mixture of budgetary allocations, out-of-pocket spending, development funding from external donors and a small pool of social health insurance contributions. About 70% of the total health expenditure is out-of-pocket which places a financial burden on poorer households and individuals. The National Health Insurance Scheme is currently limited to the formal public sector. The 2004 National Living Standard Survey, a representative sample of more than 19,000 households, indicated that out-of-pocket expenditure on out-patient care was about US\$22.5 per capita, which accounted for about 9% of total household expenditure. On average, about 4% of households are estimated to spend more than half of their total household expenditure on healthcare and 12% of them are estimated to spend more than a quarter.

Health expenditures are said to be "catastrophic" when they risk sending a household into, or further into, poverty. The purpose of health financing schemes and targets is to protect the poor from shocks associated with severe illness and to ensure equitable access to services. However, this can only be achieved if healthcare planners are well-informed about the financial burden of paying for health services.

This research sought to fill gaps in the information currently available on what health services are being accessed in Enugu and Anambra states. It explored whether public or private services were being used, the financing incidence (based on socioeconomic group and rural-urban location) of out-of-pocket spending and the incidence of catastrophic healthcare payments. It is hoped that the information in this policy brief will help guide decision makers in their efforts to protect the poor from over burdensome and damaging healthcare expenditures.

METHODS USED

- The study involved household surveys in 4 selected Local Government Areas, 2 rural and 2 urban, in Enugu and Anambra states
- A pre-tested questionnaire was administered by trained field workers to a minimum sample of 4,800 randomly selected householders
- The sample size was adequate to analyse differences between urban and rural areas in a given state, and differences between urban areas or rural areas across states
- The levels of occurrence of various health conditions were calculated, and the types of services that were accessed and providers that people visited were analysed. In addition, the level of healthcare expenditure on various health conditions and providers were estimated
- Household-level data were used to analyse the level and distribution of household healthcare payments, financing incidence of out-of-pocket spending, and catastrophic costs
- For all the equity analysis, an urban-rural distinction and a composite socioeconomic status index were used to examine the differences in catastrophic costs
- The level of health expenditure was compared between different socioeconomic groups and urban and rural dwellers, and the distribution of expenditure was summarised using the Concentration Index.
- Out-of-pocket spending was analysed using Financing Incidence Analysis
- Benefit Incidence Analysis was employed; this method estimates utilisation of the various services, weights the utilisation of different services by their cost in order to arrive at a total "value" of public subsidies and assesses the distribution of these subsidies
- The services examined by this study were: immunisation services, insecticide treated nets, artemisinin-based combination therapy for children and pregnant women; antenatal care in primary healthcare settings; normal delivery in primary healthcare centres; antiretroviral drugs; family planning and treatment of tuberculosis

KEY FINDINGS

TYPES OF SERVICES ACCESSED BY SURVEYED POPULATION

Among the surveyed population there were 5,292 out-patient visits and 282 in-patient stays in the month preceding the survey. There were 2,637 cases where transportation costs were incurred.

Malaria was the major health condition that required both out-patient and in-patient care. The next most common health condition was respiratory diseases. Hypertension was the number one non-communicable disease cause of visits to both out-patient and in-patient departments (see Table 1).

The private sector was by far the most common source of healthcare. Patent medicine dealers were most often visited for healthcare (see Figure 1). The next most commonly used providers were private hospitals and pharmacies. Public hospitals and primary healthcare centres were used to a lesser degree by the households surveyed.

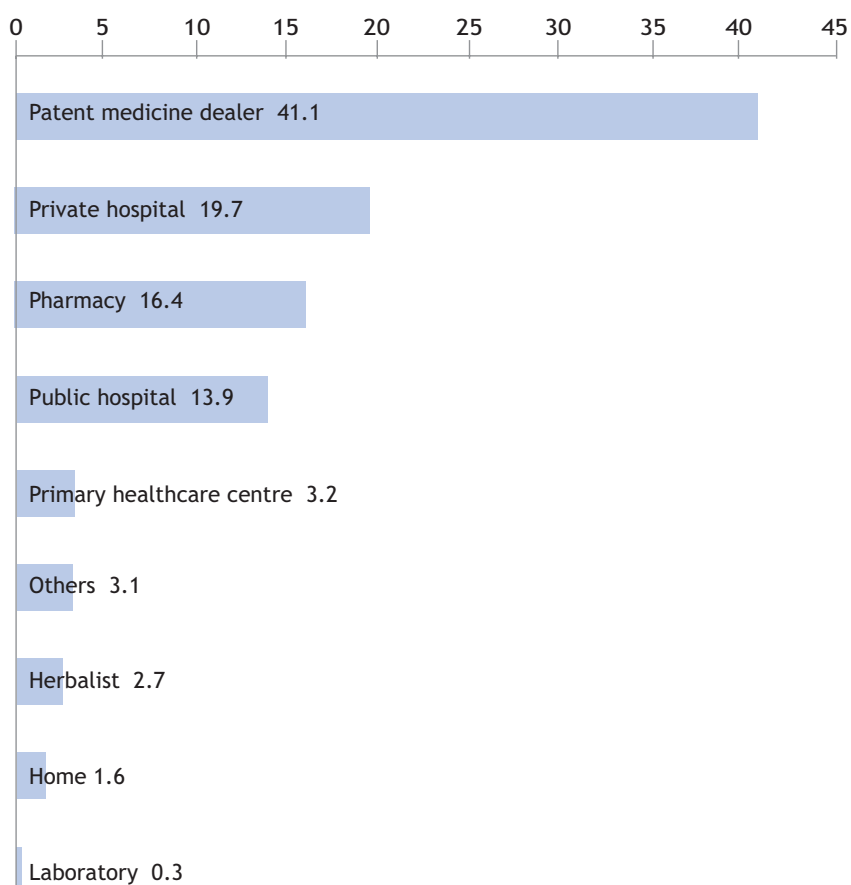
Urban residents made greater use of private and public hospitals, pharmacies, and herbalists than rural dwellers. People living in rural areas were more likely to use patent medicine dealers. Hospitals, patent medicine dealers, and primary healthcare centres were used more in Anambra state than Enugu state. Herbalists and pharmacies were used more in Enugu state. The use of public and private hospitals, as well as pharmacies and laboratories, increased with increased socioeconomic status, whilst the use of patent medicine dealers decreased with increasing socioeconomic status.

These socioeconomic differences are confirmed by the concentration indices, which are negative (i.e. pro-poor) for primary healthcare centres, patent medicine dealers, laboratories, and others; and positive (pro-rich) for home care, private hospitals, public hospitals, pharmacies and herbalists.

Table 1: Occurrence of different diseases states/health conditions in households that required out-patient visits and in-patient admissions

	n (%) Out-patient visits	n (%) In-patient admissions
Malaria	2,694 (51.4)	93 (33)
Respiratory diseases	937 (17.7)	26 (9.2)
Diarrhoea	296 (5.6)	21 (7.4)
Diabetes	73 (1.4)	4 (1.4)
Cancer	4 (0.1)	2 (0.7)
Hypertension	140 (2.7)	14 (5)
Trauma	86 (1.6)	13 (4.6)
Immunisation	90 (1.7)	1 (0.4)
HIV	1 (0.02)	0 (0)
Appendix	13 (0.25)	17 (6.0)
ANC	74 (1.4)	7 (2.5)
Childbirth	27 (0.5)	22 (7.8)
Others	1,701 (32.1)	62 (22.0)

Figure 1: Percent distribution of providers visited for healthcare services



SPENDING ON HEALTHCARE

Approximately 99% of payments for healthcare by consumers were out-of-pocket. Only one person claimed to have used private voluntary health insurance and only 1% of households claimed to have a primary National Health Insurance Scheme enrollee.

Mean monthly household health expenditure was 2,354 Naira (\$16.2). Of this the mean monthly household health expenditure in public health facilities was 661 Naira (US\$4.6). The remaining expenditure was incurred in the private sector.

The average monthly household expenditure on out-patient care was 1,809 Naira (US\$12.5), and about 610 Naira (US\$4.2) was spent on in-patient care. Average monthly household expenditure was highest in hospitals, compared with primary healthcare centres. The average monthly household expenditure on transport for both out-patient and in-patient care was 110.5 Naira.

The higher the socioeconomic status the higher the total health spending, expenditures in the public sector and expenditures on out-patient visits in the public sector. This is not surprising since better-off people had more disposable income to support their out-of-pocket spending on healthcare. Monthly expenditure on in-patient care was not statistically different across income quintiles. As socioeconomic status increased, expenditures on public and private hospitals, pharmacies, laboratories, and home care increased. Conversely, as socioeconomic status decreased, expenditure on primary healthcare centres, patent medicine dealers and herbalists increased.

Urban dwellers spent more money than rural dwellers on public and private hospitals, pharmacies, and laboratories. Enugu state residents spent more money on public hospitals and pharmacies, whilst Anambra state residents spent more money on private hospitals and patent medicine dealers.

The highest expenditures were incurred in private hospitals, followed by public hospitals. More money was spent on patent medicine dealers compared to pharmacies and the least amount of money was spent on herbalists.

CATASTROPHIC SPENDING

27% of households incurred monthly healthcare payments in excess of 40% of non-food expenditure (Table 2).

Incidence of catastrophic health expenditures was generally greater in the rural areas compared to the urban areas. Incidence of catastrophic monthly total household expenditure increased as socioeconomic status decreased: the poorest groups had the highest incidence of catastrophic expenditures.

WHO IS ACCESSING PUBLIC SERVICES AND WHAT ARE THE BENEFITS AND COSTS?

Immunisation services were the most commonly used free service, followed distantly by insecticide treated nets and artemisinin-based combination therapy.

Rural dwellers consumed slightly more free priority public health services than their share of the population compared to people in urban areas, with 57% of the population consuming approximately 55% of the services. Residents of Anambra state accessed more free services compared to Enugu state.

Rural dwellers accessed relatively more immunisation services, artemisinin-based combination therapy and TB treatment services compared to urban dwellers. Conversely, urban residents accessed more of the free insecticide treated nets and antenatal care services. This could be because there is a concentration of net distribution outlets and public health facilities in urban areas.

Use of immunisation services was very similar across the socioeconomic quintiles, and the poor benefited relatively more from free artemisinin-based combination therapy. However, the better-off quintiles captured the majority of the benefits of insecticide treated nets and antenatal care services.

Despite the fact that some of the public sector services are supposed to be free, there were negative net benefits. In other words, the amount paid out-of-pocket exceeded the cost of the services. This occurred for consumption of

Table 2: Incidence of catastrophic expenditure at threshold of 40% of non-food expenditure for different services

Monthly household total health expenditure	Monthly household out-patient expenditure in public facilities	Monthly household out-patient expenditure in all facilities
27%	8%	22%

artemisinin-based combination therapy, antenatal care and childbirth services. More money was spent for all services in the urban areas, except for child birth services, compared to rural areas. There was also more expenditure in Enugu state and amongst the better-off. The money may have been spent on formal user charges, private sector use of these services or some degree of informal charging.

Overall the poor gained more aggregate net benefits from priority public healthcare services and net benefits decreased as socioeconomic status increased.

CONCLUSION AND POLICY RECOMMENDATIONS

- Despite the investment that has been made in Nigeria to tackle malaria, in the two states studied, it remains the number one cause of out-patient and in-patient visits.
- Very few individuals consumed wholly free services despite the purported widespread availability in the study area of free immunisation services and malaria treatment services for pregnant women and children under-five. The private sector was by far the most common source of healthcare. Patent medicine dealers were most often visited. The use of patent medicine vendors was more pronounced amongst rural residents and the poor.
- As income rose, so too did the use of public and private hospitals as well as pharmacies and laboratories. The use of patent medicine dealers declined. This suggests that poor and rural people are more likely to access inappropriate healthcare services, which predisposes them to spending more on services that are not beneficial.
- Health spending was catastrophic amongst slightly over a quarter of those surveyed. This was more common amongst the poorest and those living in rural areas. It is recommended that protection against catastrophic health expenditures should be to be a priority item on the Nigerian healthcare financing agenda particularly for the poor and those in rural areas.
- The low level of consumption of free services in both states is a challenge to policy makers there to develop appropriate mechanisms for increasing the benefits of public health services to the people that need them.
- Although the poorer groups consumed more free immunisation services and artemisinin-based combination therapy, the better-off consumed more of insecticide treated nets and antenatal care. This represents inequity in the deployment of the two essential free services which should be corrected.
- The poor benefited more from public services overall. This implies that if the coverage of these services is increased, the poor will use them and avoid catastrophic expenditures. The Government should develop ways of scaling-up the free distribution of vital public health services, whilst developing and implementing strategies that will be used to decrease payments for them.
- Respondents provided three main recommendations for improving the provision, utilisation and financing of healthcare services: (1) the provision of free services, (2) subsidised healthcare and (3) the construction of more public hospitals. Reforms should identify constraints which impede the equitable distribution and access of free or subsidised public health services especially for poor people and rural dwellers.

RELATED PUBLICATIONS

Onoka C, Onwujekwe O, Hanson K, Uzochukwu B. In press. Examining catastrophic health expenditures at variable thresholds using household consumption expenditure diaries. *Tropical Medicine and International Health*.

This document is an output from a project funded by the UK Department for International Development (DFID) for the benefit of developing countries. The views expressed are not necessarily those of DFID.



www.crehs.lshtm.ac.uk

