

## The double-edged sword: financial source of household healthcare expenditure in Ghana

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### Abstract

In many regions, some of the most formidable enemies of health are joining forces with the allies of poverty to impose a double burden of disease, disability and premature death. This paper looks at the main financial sources households use to finance healthcare in Ghana. It examines the spatial and socio-economic dynamics and the challenges these pose to health and development. Analysis of the 2003 Ghana World Health Survey data indicates that approximately 41% of households depend on more than one financial source with 88% depending on household income to finance healthcare expenditure. The high dependency on household income will erode gains in the economic and health sector in the midst of the recent global economic recession. Comprehensive national health insurance programs that cover emerging disease conditions will mitigate the double burden of disease on households in emerging economies.

### Introduction

The World Health Organization estimates that every year 25 million households (more than 100 million people) are forced into poverty by illness and struggle to pay for healthcare.<sup>1</sup> Economic improvement and rapid urbanization in the developing world are accompanied by a change in behavior resulting in epidemiological transition<sup>2-5</sup> which is characterized by a marked increase in the prevalence of chronic non-communicable diseases (NCDs). These put households in developing economies under the double burden of disease. In many regions, some of the most formidable enemies of health are joining forces with the allies of poverty to impose a double burden of disease, disability and premature death.<sup>6</sup>

Developing countries such as Ghana have initiated economic and health system reforms to try to develop and improve standards of living. Such reforms include the Economic Recovery and Structural Adjustment Programs that came with a paradigm shift in economic and health policies. As part of these programs,

in 1983, the Government of Ghana revised its cost recovery law mandating cost recovery for all government healthcare institutions.<sup>7</sup> In 1992, user-fees that sought to remove subsidies on all health services were instituted in all public health facilities in the country.<sup>8,9</sup>

The introduction of healthcare cost recovery is documented as not necessarily reducing hospital attendance as people perceived the increased costs to be associated with improvement in the quality of the services provided, like availability of drugs or quality of care.<sup>10,11</sup> Statistics from the Ministry of Health in Ghana show that there was an improvement in total outpatient attendance by 3.5% between 1992 and 1995 when the full cost recovery was introduced. The institutionalization of healthcare cost recovery (user-fee) in 1992, however, saw a significant shift in healthcare cost from the State to individuals and families.

Ill health is documented to cause biographical disruption<sup>12</sup> (*i.e.* the disruptions illness causes to both the biophysical body and life trajectory of the sufferer, and the meanings ascribed to such disruptions) and creates competing demands on bodily symptoms and society.<sup>13</sup> Conditions of illness and disease are known to have a huge negative economic impact.<sup>14</sup> Evidence also suggests that the average income of people with ill health is considerably lower than that of healthy populations.<sup>15,16</sup> This reiterates and re-enforces the links between economic insecurity, poverty and biographical disruption, especially from NCDs. As investing in healthcare is dependent on external factors, individuals combine medical care and other market commodities with the time they themselves have to invest in their own health.<sup>17</sup>

In the midst of the paradigm shift in health and economic policies in Ghana, this paper examines the main financial sources used by households to finance household healthcare expenditure. It also explores how spatial dynamics (urban-rural dichotomy), presence of NCDs and socio-economic status of households influence the type of financial source used by households to finance household healthcare expenditure.

### Materials and Methods

Data are drawn from the 2003 Ghana World Health Survey (WHS) initiated and conducted by the World Health Organization in 70 countries, including Ghana.<sup>18</sup> The WHS is a nationally representative sample survey based on primary, secondary and tertiary sampling units. It consists of two parallel surveys: household and individual. It focuses on three areas of health: the health status of the population and related

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Key words: health expenditure, health financing, sources of household health financing.

Acknowledgements: this paper uses data from the WHO World Health Survey. The author would like to acknowledge valuable support received from his mentors: Prof. Francis Dodoo, Prof. Melissa Hardy and Prof. Gordon De Jong (all at Pennsylvania State University) and the Faculty of Regional Institute for Population Studies, University of Ghana.

Contributions: conceptualization and designing of the study was by the author. The author also carried out all statistical analysis, drafted and proofread the manuscript.

Conflict of interests: the author reports no conflict of interests.

Received for publication: 5 October 2011.

Revision received: 17 January 2012.

Accepted for publication: 3 May 2012.

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Journal of Public Health in Africa 2012; 3:e17

doi:10.4081/jphia.2012.e17

health risks, the responsiveness of the health system to peoples' expectations, and *out-of-pocket* health expenses that must be borne by households. In Ghana, 5662 households were sampled through a stratified sampling procedure and, based on random selection procedure using the Kish table method, a respondent aged 18 years or older was selected. Both sampling procedures were without replacement. The variables examined were: main financial source of household healthcare expenditure (12 months preceding the survey), total household healthcare expenditure (4 weeks preceding the survey), setting (type of place of residence), NCD status and household wealth quintile. Total household healthcare expenditure is the summation of all healthcare services costs incurred four weeks preceding the survey by the household. The cost items are: care that required staying overnight in a hospital or health facility; care by medical professional that did not require an overnight stay; care by traditional/alternative healers; dentists; medication/drugs; healthcare products *e.g.* prescription glasses, hearing aids, and prosthetic devices; diagnostic and

laboratory tests *e.g.* X-rays or blood tests; and any other healthcare products or services.

Household wealth quintile computation is based on household assets using factor analysis. Items used are number of cars, chairs, tables, and rooms used for sleeping. In addition, whether or not the household owns a bicycle, clock, bucket, washing machine, dishwasher, refrigerator, fixed line telephone, mobile/cellular telephone, television, or a computer were also used in the computation. Principal component analysis method was used and based on the factor loading of each item. Household wealth index was computed and subdivided into five equal parts to arrive at household wealth quintile.

## Results

The mean household size was 5.1 and the mean age of the household head was 47 years. Approximately a third (29.3%) of the households were headed by females and more than half of the household heads had at least primary education. Approximately 17% of the households did not incur any healthcare cost. A maximum amount of GH 500 (US\$ 442.25) and a mean of GH 11.09 (US\$ 9.81) were reported by households as total healthcare cost during the previous four weeks (Bank of Ghana exchange rate at December 2003 was GH 1=US\$0.8845; 2003 national minimum daily wage was GH 0.92). However, due to the skewed (8.394) nature of the distribution, a median GH 3.50 (US\$ 3.10) was reported. These amounts are relatively low compared to figures from developed economies. However, the maximum (GH 500) translates into one and a half years of daily minimum wage while the mean (GH 11.09) is approximately 12 days of daily minimum wage.

The distribution of the financial source used to finance household healthcare expenditure (Table 1)<sup>18</sup> indicates that 4 in 10 households use more than one source. Current household income is the most common source (88.0%) while only 0.5% used payment or reimbursement (health insurance). Other sources, which household depend on in order to finance healthcare, are support from family or friends (16.4%) and borrowing (13.5%). Selling household assets and savings were used by 9.0% and 8.2%, respectively of the households to finance healthcare expenditure.

The spatial differences in the main financial source for healthcare expenditure shows that rural households depend on household income, borrowing and selling of household assets more than their urban counterparts (Table 1).<sup>18</sup> Urban households on the other hand depend on savings and family members more than rural households. Details of other

sources are presented in Table 1.<sup>18</sup>

Data (Table 2)<sup>18</sup> revealed that although current income of household was the common financial source used by both categories of households, households with a member living with an NCD depend on savings and family and friends to finance household healthcare expenditure more than households with no member living with NCDs.

The data indicate that, in general, across all wealth quintiles, current income was the most common source (Table 3)<sup>18</sup> While households in the upper wealth bracket (rich and the richest) use their savings, those in the lower wealth bracket (the poorest and poorer) rely on the sale of household assets and borrowing.

## Discussion

This paper argues that with the paradigm shift in economic and health policies in developing countries, more households will be pushed into poverty by the struggle to pay for healthcare. This could erode gains in the economic and health sectors of the country and have far-reaching consequences on efforts to achieve the Millennium Development Goals. The financial sources used by households to finance healthcare is a double-edged sword with both health and economic implications. The results indicate that more than 4 in 5 households (88.0%) depend on household

**Table 1. Financial source of household healthcare expenditure by type of place of residence.**

Main source of household healthcare finance	Setting		Total
	Urban	Rural	
Current income of household	1196 (86.2)	1964 (89.2)	3160 (88.0)
Savings	194 (14.0)	102 (4.6)	296 (8.2)
Payment/reimbursement	10 (0.7)	8 (0.4)	18 (0.5)
Sold items	83 (6.0)	241 (10.9)	324 (9.0)
Family members	274 (19.8)	313 (14.2)	587 (16.4)
Borrowed from someone	178 (12.8)	306 (13.9)	484 (13.5)
Other	61 (4.4)	122 (5.5)	183 (5.1)
<b>Total</b>	<b>1996</b>	<b>3056</b>	<b>5052 (140.8)</b>

N.B. Multiple response variables. Figures are based on sources used by household in the last 12 months prior to the survey.

**Table 2. Financial source of household health expenditure by household chronic disease status.**

Main source of household healthcare finance	NCD Status	
	No NCD	NCD
Current income of household	2827 (89.1)	226 (81.3)
Savings	260 (8.2)	29 (10.4)
Payment/reimbursement	17 (0.5)	0 (0.0)
Sale of household assets	283 (8.9)	22 (7.9)
Family members	490 (15.4)	71 (25.5)
Borrowed from someone	427 (13.5)	36 (12.9)
Other	158 (5.0)	20 (7.2)

NCDs, non-communicable diseases. N.B. Multiple response variables. Figures are based on sources used by household in the last 12 months prior to the survey.

**Table 3. Financial source of household health expenditure by household wealth quintile.**

Main source of household healthcare finance	Household wealth quintile				
	The poorest	Poorer	Middle	Rich	Richest
Current income of household	614 (88.6)	603 (88.3)	607 (89.3)	594 (89.2)	575 (86.9)
Savings	6 (0.9)	24 (3.5)	37 (5.4)	65 (9.8)	147 (22.2)
Payment/reimbursement	3 (0.4)	3 (0.3)	1 (0.1)	5 (0.8)	5 (0.8)
Sale of household assets	68 (9.8)	80 (11.7)	79 (11.6)	53 (8.0)	39 (5.9)
Family members	112 (16.2)	106 (15.5)	114 (16.8)	108 (16.2)	102 (15.4)
Borrowed from someone	107 (15.4)	100 (14.6)	101 (14.9)	89 (13.4)	67 (10.1)
Other	31 (4.5)	38 (5.6)	31 (4.6)	34 (5.1)	38 (5.7)

N.B. Multiple response variables. Figures are based on sources used by household in the last 12 months prior to the survey.

income with only 0.5% using health insurance. The reliance on out-of-pocket funds to finance healthcare will limit access to services and compromise economic independence.

Approximately 41% of the households use more than one financial source to finance household healthcare. This is an indication that with the decline in the Government of Ghana's budget allocation to the health sector,<sup>19</sup> and increased healthcare cost resulting from subsidies cut, no single source can adequately finance household healthcare expenditure. The data revealed a high dependence on current household income, family and friends, and borrowing by households to finance healthcare. The implications are that in times of economic insecurity, these become very unreliable and may lead to psychosocial and health pressures on the household.

One edge of the sword is the health implications of the type of financial source used by households. The limited use of health insurance and high dependence on household income, family and friends, sale of household assets and borrowing will not only affect people's behaviour in seeking healthcare but will also limit access to and use of healthcare services. As a means of meeting household healthcare needs and in an attempt to cut costs, there will be a high proportion of people turning to self-medication<sup>20</sup> and alternative and traditional healers.<sup>21</sup> These trade-offs are known to have negative health consequences on both the infected and affected persons.

The other edge of the sword is made up of the short and long-term economic implications of the financial sources used. There is evidence to show that the average income of people with chronic illness is considerably lower than that of healthy populations.<sup>15,16</sup> With low income, the sale of household assets and borrowing, possibilities for raising and accumulating capital for investment will be limited compromising the ability of households to raise their standard of living above poverty levels. This perpetuates the vicious cycle of poverty in the developing world.

The low health insurance and dependence on unconventional sources to finance healthcare will have health and social implications in developing economies like Ghana. In some cases, dependence on immediate family and friends to finance healthcare often leads to family abandonment.<sup>22</sup> The resultant effect of such abandonment is the breakdown of social and support networks and increased social isolation. Today, more adult Ghanaians are adopting lifestyle behaviors which put them at greater risk; in particular, alcohol consumption, smoking, physical inactivity, and inadequate consumption of fruit and vegetables.<sup>23</sup> These behavior patterns will expose more people to the risk factors for chronic non-commu-

nicable diseases that will affect household income, financial resources and healthcare expenditure.

The results from this study will provide policy makers with the empirical evidence for health policy reform while providing the platform for changes in healthcare funding in order to increase access to healthcare and eliminate payment at the point of service delivery. The challenge to households is the non-availability of a comprehensive national health insurance program that covers emerging NCDs. For the health systems in Ghana, the greatest challenges lie in systemic and structural deficiencies that impinge on access and use of healthcare services. Emphasis on deprived sub-populations and geographical areas should be central to any strategic intervention on national and local levels. Increased uptake of health insurance across all spectra of Ghanaian society is pivotal to sustain use of health services and achieve universal health coverage.

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