Discussion and Debate

Financing health care in Sudan: Is it a time for the abolishing of user charges?

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Abstract

During the past fifteen years, the government of Sudan introduced a number of initiatives to finance heath care in general, and essential medicines in particular, as part of health reform. The lack of evidence-based policy-making means that the government subjectively changes health care financing policies frequently. It is clear that the intent of the government has been to increase equity of access to health services of acceptable quality. The evaluation study conducted by Mohamed [1] represents the first empirical evidence of the impact of Cost-Sharing Policy (CSP), in general, and Revolving Drug Fund (RDF), in particular, on the accessibility to essential medicines and thereby the utilization of public health facilities. In this article, the health financing mechanisms adopted and the future of the CSP will be discussed.

Keywords:

Cost-Sharing Policy

The government of Sudan has provided health services to its citizens, including the free supply of medicines, funded by general resources since independence in 1956. However, the government has been constrained by an array of political and economic problems. In consequence, the proportion of GDP allocated for the health sector reduced from 1.5% between 1978 and 1982 [2] to 0.07% in 1990 [3]. As a result, the new government faced the question of how to meet the health needs of the population, especially the poor, with falling government resources. The government wanted to maintain the provision of services at low cost and of acceptable quality, but this was possible only if more resources were brought into the system. Cost-Sharing Policy (CSP), as a component of an economic reform plan adopted in 1992 (known as the economic liberalisation policy), was introduced at the same time in all public health facilities throughout the country. It was seen as a solution to generate and free more resources for the health care system, in order to stop the rundown of health services. The CSP could do so by alleviating frequent out-of-stock situations for medicines and other medical supplies, by covering non-salary recurrent costs and by encouraging doctors and other medical staff to work at health centres by giving incentives in a form of extra allowances. It also aimed to increase and maintain coverage, particularly for the poor who could not afford alternative private sources of medical care. In addition, the CSP aimed to strengthen community participation and to improve efficiency by reducing unnecessary utilization of public health facilities, following the principle that when a service costs money people will think twice about using it [4]. This is because the CSP introduces charges at the point of use. Finally, the CSP was thought to pave the road for other options of community participation in their health care cost, such as health insurance.

The introduction of the CSP was supported and made acceptable by a number of factors. Firstly, the hospital visitors' fee was instituted as early as the late 1960s to discourage loiterers, but was found to

generate a large amount of cash [5]. Secondly, people in Sudan are accustomed to paying traditional healers. Thirdly, the reality was that patients mainly bought their medicines from private pharmacies during the free public health services policy. Fourthly, an increasing cost to users of access to private sources of acceptable quality has made it easier for the government to implement the CSP. It was assumed that if people were willing to pay for private services, they would equally be willing to pay for public health care facilities, provided that the quality was improved.

User fees vary according to the level of care. At the first contact level (PHC units, dressing stations and dispensaries) where the provider is a community health worker, a trained nurse or a medical assistant, the consultation is free. Nevertheless, users have to pay for simple diagnostic tests like blood films for malaria and urine or stool tests, in addition to the cost of medicines. At health centres, the provider is a medical assistant, or a medical doctor, or may be a specialist doctor in some urban areas, and all curative services must be paid for. The fees paid by users include: a medical consultation fee; diagnostic fee; wound dressing and minor surgical procedure fee and dental fee. The charges range from SDD 250 (US$ 1) to SDD 500 (US$ 2) for specialist services at the time of this study in 2004. Other forms of payment in health facilities comprise medicines cost (calculated by each item dispensed) at both health centres and hospitals and fees for surgical operations and admission in hospitals. Yet some subsidies and exemption mechanisms are operated for emergency cases and for poor people, at least in theory at hospital levels.

The CSP has also experienced a number of problems, due to insufficient training and preparation, non-phased implementation, and weak mechanisms to protect the poor [6]. The fact is that revenues from CSP were not enough to bring the health services to a level that the population could clearly perceive as improvement. The resulting problems include reduction in access and utilization of health services, shortages of essential medicines and poor quality of services. As a consequence, the government launched Health Insurance Schemes in different States (see below) as a radical solution to the problem of health care financing.

Health Insurance Scheme

As a part of Sudan government's commitment to meeting the health needs of the population, the government decreed compulsory social health insurance for all employees of public and private sectors in early 1996. It was introduced as an alternative option to overcome the drawbacks of payment at the point of service delivery, which emerged from health financial reform: user charges. Examples of the drawbacks of user charges are inability to pay and low revenues generation. Health Insurance Scheme (HIS), therefore, aims at promoting equitable access, improvement of the quality of curative medical services and raising revenues for health sector in Sudan. According to the Health Insurance Scheme Act of 2001 [7] all active individuals in both formal and informal sectors should be insured (i.e. Health Insurance is compulsory according to this Act). The family of an insured person is included, and enjoys benefits from the insurance plan with the same premium. The family includes the wife, siblings, father and mother.

HIS is funded through a variety of sources, including 10% of the gross wage (4% from the employee and 6% from the employer). The government pays the premiums of retirees, poor people and full-time students from its various organisations, such as the Zakat chamber. Those who are not in the formal sector and are willing to join have to pay a total of SDD 12,000 annually

(US$ 47 annually per family), paid on a monthly basis. Other sources of financing the Insurance Scheme comprise contributions from Federal government; revenues generated through investments by the funds of HIS; and charity donations and other forms of contributions that support the objectives of the insurance plan.

The benefit package includes all medical consultations, admissions, diagnostic procedures and therapeutics including surgical operations. Dental services are included with the exception of denture and plastic surgery. The highest cost diseases, namely cardiac surgery, renal failure and cancers, are excluded. HIS coverage also includes 75% of the cost of medicines on its approved list of essential medicines. The beneficiaries pay the remaining 25% of their prescription and pay the full cost of medicines prescribed out of the list. Each level of health professionals has a defined list of drugs that they allowed to prescribe (with different lists for medical doctor and specialists) and only generic medicines are allowed.

Despite the celebration of its 10th anniversary in 2005, the HIS provides limited insurance coverage for only 13% of the population [(8)]. Most (85%) of the insured individuals are public sector employees, 6% are members of the informal sector, 4% are poor families, 3% are families of martyrs and 2% are students [(9)].

In Khartoum State, Health Insurance was set up in early 1996. However, the situation in Khartoum State (where the number of persons insured by HIS in 2003 was 1,605,600 equivalent to 30% of the population) is far better than elsewhere in Sudan [(6)]. The army, police and security forces are excluded. The Zakat chamber at State level pays the insurance premium for 20,000 poor families (each family comprises, on average, five persons). They were selected by local people's committees out of the 300,000 households (i.e. about 1,500,000 population) currently classified by the Zakat as poor [(6)]. In Khartoum State, insured persons are registered at a health centre, which acts as a first point of contact with the health care system, and buy medicines at the RDF health centres (fifty-nine health centres) hospitals or people's pharmacies.

Financing health care in Sudan: the way forward

The consequences of the increased oil exportation and the Comprehensive Peace Agreement include stability in the rate of inflation, the return of international donors, re-engagement with the international community (i.e. economic sanctions no longer exist) and possibility of debt cancellation or rescheduling. In this context, it is worth asking what value-added the CSP contributes, as it is presently functioning. To answer this central and serious question of policy, I discuss the original reasons (dating back to the early 1990s) that led to the introduction of the CSP. Some serious side effects of the CSP identified in this study, and experiences of other countries where user fees policies are applied, will be used to support my argument in answering the above question. Economic and political changes which have taken place during the past fifteen years, and which could have real contribution to the economy of Sudan, will be also briefly highlighted.

First, when the Cost-Sharing Policy was introduced in the early 1990s, the economic situation of Sudan was very critical. This was mainly attributed to the civil war in the south, drought during the early 1980s, and economic sanctions and withdrawal of international donors after the current government came to power in 1989. It was thus within this context of acute budgetary difficulties that in 1992 the government decided that cost recovery was to be implemented across the board in all health facilities. The GDP was US$ 7.9 billion in the early 1990s [(10)], but in 2005, it was US$ 85.46 billion [(11)].

Economic growth rate increased from 3.5% in 1993 to 8.6% in 2005 (11). Total public expenditure on health moved from 0.7% of the GDP in 1990 (3) to 4.9% in 2002 and increased by eight fold per person in real terms (i.e. from US$ 0.5 per capita in 1987 (12) to US$ 4 in 2002 (13)). Total Federal government expenditure on health increased dramatically from SDD 7.6 billion (US$ 29 million) in 1999 to SDD 15.2 billion (US$ 60 million) in 2003 (the last year for which audited account are available) (14). Government spending on health has therefore doubled in absolute figures since 1999. This is mainly due to increased oil revenues. In addition, the return of international donors will add to the available health resources. For example, the Global Fund provides opportunities for Sudan to deliver comprehensive programmes which include treatment for HIV/AIDS, tuberculosis and malaria. In 2006, the FMOH has received amount of US$ 8 million in form of equipment and antimalarials out of US$ 15 million two-year grant allocated for Sudan (15).

Second, at the time of the introduction of the Cost-Sharing Policy, the aims were to increase revenues for quality improvement and to contain unnecessary utilization of services, particularly medicines. These two aims could still be achieved after the removal of the fee-for-service. The lost revenues for recurrent non-salary costs could be substituted for by increasing the overall health budget after the increased oil exportation and the surplus amount paid by the peace dividend. For instance, in 2002, military and security spending in Sudan took up a significant proportion (32%) of public recurrent expenditure, while the allocation for health stands at 2% (13). Thus, the Peace Agreement could free up considerable resources (an estimated US$ 1 million per day was spent on the civil war in the south (12)) for health and other social services. Various other income generating activities (such as visitors' fee) operating at hospital level will continue to generate considerable revenue at facility level. Other potential benefits of the CSP, such as improvement in the quality of services through regular supply of medicines, and setting cost signals to encourage more efficient practice by health care providers will continue through payment for medicines. Continuation of user fees for medicines can, therefore, still mitigate the problems of unnecessary utilization that sometimes accompany free health services and which are mainly due to the intention of obtaining free medicines, as has been reported in this study.

Third, this study reveals that the CSP acts as an economic barrier to tertiary care for patients from low and middle income groups. For instance, it increases the number of patients who wait until their medical condition has much deteriorated. This reduces the efficiency of the health care system by increasing patients' suffering and ultimately leads to elongation of hospital stays. Evidence from different African contexts indicates that user fees have too often disproportionately hit hard on poor people (16). The literature therefore shows some experiences where Cost-Sharing has a negative impact on health care consumption. For example, Weaver (17) found that, in Niger, outpatients who paid fees delayed seeking care for longer than those who did not. Russel (18) reported experiences from Zambia and Uganda where, respectively, women expecting difficult child deliveries delay their admission for fear of paying more, and some mothers waited until their child was seriously ill to ensure their eligibility for free admission to the emergency ward. In Niger, Chawla and Pellis (19) found that households in lower income groups have a 2% lower probability of seeking formal treatment compared with households in the highest income level. Of course, the CSP was not adopted specifically to reduce the utilization of necessary

health care services at any level by the low or any other groups, but in reality it does.

Fourth, in Khartoum State, for example, the CSP frees a small amount of resources for the health sector. For instance, in 2005, the share of CSP (dental, diagnostic tests and medicines revenues not included) in the total expenditure on health in Khartoum State was only 7% [20]. However, this percentage is slightly higher when compared with the 5% reported by Gilson and Mills [21] in Africa. Thus, the lost revenues, as a consequence of removal of user fees, will be a small proportion of total government spending. And the potential savings after the Peace Agreement will be far more than the lost revenues previously generated from user fees. The CSP failed to improve the quality of services, particularly availability of medicines, in non-RDF facilities at both Federal and State health facilities in Khartoum State [1]. The author of this study argued that small revenue is generated at the expense of reduced efficiency in terms of the failure to maximise the benefit for low income groups, particularly at tertiary levels. Therefore, the CSP did not provide an adequate or strategic solution to the problem of health care financing in Sudan.

Fifth, mechanisms for protecting the poor appear to be inefficient and failed to protect patients from low income groups against the negative impact of user charges: this suggests that new arrangements to protect the poor are necessary. In Sudan, 40% of the population is below the poverty line [11] and according to Mohamed [1]; even the middle income group who earned approximately US$ 4 per day were only US$ 3 above the internationally recognised poverty line of US$ 1. In this context, dependence on social networks to pay for medical care is costly and may not work in case of epidemics or high cost medical interventions. This is because ultimately whole social networks can be depleted by the large numbers of such claims [22]. The system of informal social solidarity also may not last for a much longer time as the Khartoum State population becomes more modernised: as a result, previously strong social networks will be weakened. Nor can health insurance provide a solution. After more than ten years, since its inception, health insurance coverage is low. Only 30% of the Khartoum State population have insurance coverage. Most (80%) of them are public sector employees. Vulnerable groups, such as poor, self-employed and farmers, are without insurance coverage. The current situation is unlikely to be remarkably changed in the foreseeable future. These difficulties support our argument that the removal of fees for medical services should be considered.

Sixth, there is an international movement for removal of fees, particularly at the primary care level [23]. For example, the World Bank [24] has recognised that user charges for health services, particularly at hospital level, can make the difference between a household being poor or not. Recently in its medicines strategy, WHO reported that “fair and sustainable financing for the medicines component of health care should be ensured through adequate funding levels and equitable prepayment mechanisms, such as government revenues or social health insurance, to ensure that poor people do not face proportionally higher costs than the better off” [25]. In response to this movement, Zambia translated its debt forgiveness, by scrapping user fees that had made health services inaccessible to millions of poor people in rural areas [26].

Seventh, doctors confront an embarrassing and critical situation, particularly at health centres, when a patient fails to pay the doctor’s consultation fee. This will end up by poor people switching to cheaper forms of health care, such as self-medication and traditional healers. As mentioned

earlier, these practices will increase the overall health expenses when people ultimately return to a hospital after their condition has seriously deteriorated. Mohamed [1] shows that patients sometimes resort to self-medication to save the consultation fee. The impact of these practices may have long-term negative consequences for their health status [27]. The removal of the consultation fee encourages patients to go first to see a doctor to get a prescription. This new proposed policy if accepted by the government, will, therefore, reduce the self-medication practice.

Eighth, abolishing medical services charges would strengthen the RDF by boosting demand for its medicines amongst groups which are at present unable to use RDF facilities or amongst those patients who use self-medication, consult traditional healers or wait until they are becoming seriously ill. This is because free medical services should encourage individuals to seek a consultation before medicines are received. The consequence of increased utilization of RDF facilities would be a high RDF turnover without any additional administrative costs. The high turnover could help the RDF to further reduce the prices of its medicines. It also finances the RDF expansion to non-RDF health facilities in Khartoum State. In addition, the current RDF contribution paid to the MOH Khartoum State could be increased.

Finally, continuing patients' charges after the country has jumped the hurdle of the 1990s would be politically embarrassing. Circumstances have been favourable to the removal of the CSP for medical services. The waiving of user fees for medical services, such as consultations, surgical operations and hospitalisation at all levels, will remarkably increase the number of patients using public health facilities. A recent study in Uganda showed that the abolition of user fees has a positive effect on the poor, and attendance at government health facilities was reported to show a 100% increase, after user fees were officially abolished [28,29]. Similarly, in Khartoum State the number of antenatal visits almost doubled after the fee for this service was abolished [1]. On the other hand, James and others [30] argued that the Cost-Sharing Policy contributes to increased morbidity and mortality. The authors conclude that the abolition of the CSPs could have a substantial impact on child mortality by preventing an estimated 233,000 deaths annually in twenty African countries. Brook and colleagues [31] inferred that for those in receipt of free care 'their risk of early death had been diminished'. The positive relationship reported between user charges and catastrophic health expenditures suggests that the removal of user charges may stabilise household income [32].

To summarise, it seems clear that the original circumstances which necessitated the introduction of the Cost-Sharing Policy for all health services provided in Sudanese public health care facilities no longer exist, and that the CSP failed to improve the quality of services in these facilities. More seriously, it represents an economic barrier to equitable access to health care, particularly at tertiary level. It is apparent from evidence presented here that without waiving of fee-for-service perspectives, further efforts for improvement are not encouraging. In the interest of equity and enhancing utilization of Primary Health Care services, user fees for doctors' consultations and hospitals' services other than medicines should be phased out. Expanding health insurance coverage to informal sectors including the poor, improving the efficiency of the Zakat system, and better co-ordination between different public providers of health care are now priorities as will be shown later.

Other policy options to improve financial accessibility to health care

Access to essential medicines is a crucial element of the national strategy to achieve health for all [14]. In order to help Sudanese people to get access to health care, the challenge for the government is to find sources of funds to provide affordable health services of acceptable quality to all populations throughout Sudan. The governments at Federal and states levels should therefore consider the following financial options:

Private rooms at public hospitals

Currently there are private wings in some public hospitals. This provision of hospital private rooms could be further improved by the introduction of a voluntary selective system, based on high payment for comfortable hospital accommodation. This reform would yield surpluses that could be used to provide free services for the poor in public hospitals. The principles of the reform would be to grade hotel-type services of hospital accommodation. So, there will be no difference in the standard of clinical care and the differential will be in the hotel services only. A graded public hospital ward system would range from a one-bed room with, for example, separate toilet and shower, air condition, television, and fridge, to open wards with a number of beds. Stratification according to the level of comfort, privacy and hotel-type services (disparities that resulted from individual choice) would allow differential pricing. The levying of substantial fees for ‘private rooms’ in public hospitals, available to be selected by those who are willing and able to pay more for better hotel-type services, would generate a surplus. The generated funds could be used to provide free health services in general teaching wards in the same hospital. This reform would improve access to hospital services for the poor and suffering will be substantially reduced. This is because the relatively richer patients will be encouraged into private rooms within the public hospitals, leaving free beds in general wards for the poorest individuals. This proposal would serve to minimise the equity problem, but it would raise the issue of discrimination between patients on an economic basis in public hospitals. However, more calculation is still needed to workout the economic feasibility of this proposal and to find out whether the generated revenue would generate surpluses that could substitute for the losses from the waiving of hospital fees.

Expansion of social health insurance coverage

Efforts need to be made to extend the existing insurance scheme better to cover both formal and informal sectors of the economy, with more focus on the poor families. Currently, the premium for membership of poor families in Khartoum State is SDD 5,000 (around US$ 20) annually paid by the Zakat on monthly instalments to the Health Insurance Scheme in Khartoum State [8]. For the government to insure the remaining poor families (about 280,000 households) in Khartoum State, the annual cost would be SDD 1.4 billion (roughly US$ 5.6 million). Sources for funding the insurance coverage of this group of the Khartoum State population could include the increased budgetary allocation for health after the Comprehensive Peace Agreement. The Zakat could also increase its contribution for insurance coverage, because the current Zakat burden of supporting other social activities could be lifted, particularly after the general economic improvement. The advantages of extending insurance coverage to the remaining poor families in Khartoum State beyond the current mechanisms for protecting the poor would allow the targeting of poor households directly. The insurance coverage for the poor families would provide free medical services at the point of delivery together with a charge of only 25% of

prescription costs, and would free up household resources for other basic needs. Moreover, the HIS Khartoum State would benefit by increasing its coverage. Such expansion would increase the HIS revenue to improve the quality of its services or to expand coverage of other services, which are currently not covered, such as medical devices and treatment of certain diseases, for example, cardiac operations. Finally, the poor people's insurance proposal does not require any new administrative arrangements.

Zakat coverage

This option could provide a way of avoiding the negative equity impacts of the RDF on those who are not able to pay for their medicines from their own income or savings. The Zakat was mentioned by the policy-makers and practitioners interviewed for the study as the main official source of financing hospital solidarity offices to assist poor patients. Patients who fail to get assistance at hospital level are referred to the Zakat Chamber. The system for accessing assistance from the Zakat, as described before, appears to be complicated. Potential improvements to the Zakat could include pre-identification of poor families who need Zakat assistance. The identified families and individuals could be given a card which would entitle them to receive free medical services and subsidised prescriptions for certain list of medicines and for a certain period of time (allowing for periodic reassessment of the families economic situation). The health facilities and the RDF would be repaid by the Zakat on an agreed frequency, for example, every month.

Co-ordination between different pro-poor agencies

The involvement of many governmental bodies in the delivery of public health care and the persistent lack of co-ordination between the Zakat Chamber, National Health Insurance Fund, on one hand, and Federal and State Ministries of Health, on the other, reduces the potential for improving access to health care, in general, and to essential medicines, in particular. This co-ordination is needed to avoid duplication of efforts, waste of scarce resources, confusion to users, unnecessary conflict between different government organisations, absence of accountability, unnecessarily heavy reporting requirements to the Zakat Chamber and so on. The Zakat and Health Insurance Schemes should commit funds that strengthen existing health care system by proactively targeting the poorest people and rural areas, instead of trying to establish a new, parallel health system.

References

1. Mohamed GK. Accessibility of Medicines and Primary Health Care: the Impact of the RDF in Khartoum State [PhD Thesis]. Nottingham Trent University; 2006.
2. Wang'Ombe JK and Mwabu GM. Economics of essential drugs schemes: the perspectives of the developing countries. *Social Science and Medicine*. 1987; 25(6): 625-630.
3. HDR. Human Development Report. 2003 [document on the internet] 2003. [cited 2005 February]. Available from http://hdr.undp.org/statistics/data/cty/cty_f_SDN.html.
4. Shaw RP and Griffin CC. Financing Health Care in Sub-Saharan Africa through User Fees and Insurance (Direction in Development). Washington, D.C: World Bank; 1995.
5. Griffin CC. User charges for health care in Principle and Practice. An EDI Seminar Paper No. 37. Washington, D.C.: World Bank; 1988.
6. MOH. Health services in Khartoum State. Khartoum, Sudan: Ministry of Health, Khartoum State; 2003
7. Health Insurance Act of 2001. Khartoum, Sudan: Ministry of Social welfare; 2001.

8. Mustafa MS et al. Health system profile: Sudan. Division of Health System and Services Development, Eastern Mediterranean Regional Office, WHO; 2005.
9. NHIF. Annual report. National Fund for Health Insurance. Khartoum, Sudan: Ministry of Social welfare; 2002.
10. World Bank. Sudan at a glance [document on the internet] 2003. [cited 2003November] Available from http://www.devdata.worldbank.org/sdn_aag.pdf.
11. CIA. The World Fact book [homepage on the internet] 2006. [cited 2006 January] Available from http://www.cia.gov/cia/publications/factbook/geos/su.html.
12. Dodge CP. Health implication of war in Uganda and Sudan. *Social Science and Medicine*. 1990; 31(6): 691-698.
13. Decaillet F, Mullen PD and Guen M. Sudan Health Status Report. World Bank Report, Draft Version1 Document No. World Bank/AFTH3. [document on the internet] 2003. [cited 2006 January] Available from http://www.emro.who.int/sudan/pdf/Sudan%20Health%20Status%20Report%20August%202003.pdf.
14. Federal Ministry of Health. 25 years strategic plan for health sector. Khartoum- Sudan: Federal Ministry of Health; 2003
15. Al-Sahafa Newspaper. Distribution of medicines and medical equipment by Malaria Control Programme to ten states. Al-Sahafa Newspaper; 19th Jan 2006
16. Arhin-Tenkorang D. Mobilizing resources for health: the case of user fees revisited. Commission on Macroeconomics and Health Working Paper Series No WG3:6. World Health Organization, Geneva [document on the internet] 2000. [cited 2005 December] Available from http://www.cmhealth.org/docs/wg3_paper6.pdf.
17. Weaver M. User fees and patient behaviour: evidence from Niamey national hospital. *Health Policy and Planning*, 1995; 10(4): 350-361.
18. Russell S. Ability to pay for health care: concepts and evidence. *Health Policy and Planning*. 1996; 11(3): 219- 237.
19. Chawla M and Ellis RP. The impact of financing and quality changes on health care demand in Niger. *Health Policy and Planning*. 2000; 15(1): 76-84.
20. MOH. *Annual financial report*. Khartoum:, Sudan: Ministry of Health, Khartoum State; 2005
21. Gilson L and Mills A. Health sector reforms in Sub-Saharan Africa: lessons of the last 10 years. *Healthy Policy*. 1995; 32(1-3): 215-243.
22. McPake B, Kumaranayake L and Normand CEM. Health Economics: An International Perspective. London: Routledge; 2002.
23. McIntyre D, Thiede M, Dahlgren G and Whitehead M. What are the economic consequences for households of illness and paying for health care in low- and middle-income country contexts? *Social Science and Medicines*. 2006; 62(4): 858-865.
24. Claeson M, Griffin CC, Johnston TA, McLachlan M, Soucat ALB, Wagstaff A and Yazbeck AS. Poverty-reduction and the health sector: the health, nutrition and population network's chapter in the World Bank's Poverty Reduction Strategy. Sourcebook. Health, Nutrition and Population. Washington, D.C.: The World Bank; 2001.
25. World Health Organization. WHO Medicines Strategy: Countries at the core 2004-2007.

Document number: WHO/EDM/2004.5. Geneva: World Health Organization; 2004.

26. Moszynski P. Zambia scraps healthcare fees for poor rural people. *British Medical Journal*. 2006; 332(7545): 813.
27. Hopkins S. Economic stability and health status: evidence from East Asia before and after the 1990s economic crisis. *Health Policy*. 2006; 75(3): 347-357.
28. Jitta J, Reynolds WS and Nshakira N. The availability of drugs: what does it mean in Ugandan primary care. *Health Policy*. 2003; 65(2): 167-179.
29. Xu K, Evans DB, Kadama P, Nabyonga J, Ogwal PO, Nabukhonzo P and Aguilar AM. Understanding the impact of user fees: Utilization and catastrophic health expenditures in Uganda. *Social Science and Medicines*. 2006; 62(4): 866-876.
30. James C, Morris SS, Keith R and Taylor A. Impact of child mortality of removing user fees: simulation model. *British Medical Journal*, 2005; 331: 747-749.
31. Brook RH, Ware JE, Rogers WH, Keeler EB, Davies AR, Donald CA, Goldberg GA, Lohr KN, Masthay PC, and Newhouse JP. Does free care improve adults' health? Results from a randomized controlled trial. *New England Journal of Medicine*. 1983; 309(23): 1426-1434.
32. Xu K, Evans DB, Kawabata K, Zeramdini R, Klavus J and Murray CJ. Household catastrophic health expenditure: a multicountry analysis. *Lancet*. 2003; 362(9378): 111-117.