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IMPROVING ACCESS TO REPRODUCTIVE AND CHILD HEALTH SERVICES IN DEVELOPING COUNTRIES: ARE COMPETITIVE VOUCHER SCHEMES AN OPTION?

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Abstract: Reducing maternal and child mortality is an important goal of the Millennium declaration and a major concern for policy makers in developing countries. One of the important barriers to reducing maternal mortality is the low utilisation of maternal health services provided by the public health system through it supply side mechanisms.

Demand side financing is increasingly being proposed as one of the options to increase access to reproductive and child health services and is generating great interest in a number of developing countries. Demand side financing not only promotes equity through improved access and better targeting of subsidies, but also provides incentives for efficiency and provider choice by involving the private sector. This paper discusses the concept of demand side financing, and analyses its strengths and limitations. Copyright © 2007 John Wiley & Sons, Ltd.

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1 INTRODUCTION

Reducing maternal and child mortality is an important goal of the Millennium declaration and a major concern for policy makers in many developing countries. More than half a

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million women die each year as a result of complications of pregnancy and child birth and more than 10 million women suffer injury, infection or disease as a result of pregnancy (WHO, 2004). According to the UNFPA update on maternal mortality estimates, of the total 514 000 maternal deaths, 98 per cent of these occurred in developing countries (United Nations Population Fund, 1999). It is rare for maternal mortality rates to be greater than 10 per 100 000 live births in most of the developed countries and yet it is common to observe maternal mortality rates greater than 500 per 100 000 live births in some developing countries (World Bank, 2001). In addition, maternal services are essential in preventing deaths and morbidity among the newborns.

A number of studies have identified access to maternity health services as a key indicator for reducing maternal mortality in developing countries (Bulatao and Ross, 2003; Ensor and Cooper, 2004). Although government services are 'supposed' to be free at the point of use, many individuals including the poor are not utilising these services. Instead, people prefer to opt for the private sector due to both supply and demand factors (Ensor and Cooper, 2004). A number of studies show that the private sector is an important source of health care in developing countries (Hanson and Berman, 1998; Uplekar *et al*., 1998; Brugha and Zwi, 1999). Both the rich and poor alike utilise private health care for various services like antenatal care, institutional deliveries, ambulatory care and hospitalisation (Gwatkin and Guillot, 1999). Hence, given the preference for private providers, any strategy to improve access to reproductive and child health (RCH) services in developing countries must involve private providers especially where government health care is inadequate or of poor quality.

Currently, RCH services in many, although not all, developing countries are tax financed and provided by the public health system through supply-side financing mechanisms. This approach is universally 'free' for all and the funding is for inputs based on capital and recurrent costs. As governments are directly involved in the provision of health services by employing a huge army of staff, and owning equipment and buildings, this results in a huge financial investment providing little flexibility to move resources. Significant allocative inefficiencies result as a large percentage of health budgets go towards the payment of salaries with little left for drugs or maintenance of equipment. With governments being a monopolistic health care provider, there is limited choice to the consumer, no competition, and services are often of poor human quality. In addition, as the staff are paid salaries[1] at the end of the month irrespective of the outputs delivered, there is little incentive for them to improve their performance or to be responsive to their patients. Finally, as supply side financing is poor in targeting, there are obvious inequalities in terms of access and utilisation of health services, as well as health outcomes across socio-economic groups.

Therefore the challenge is to explore innovative ways through which government subsidies could be better targeted towards those who cannot afford to pay, and to improve equity and efficiency of services, provide choice of providers and improve responsiveness and quality of care. Any financing reform in developing countries should address the limitations of the current supply-driven free-for-all, universal and tax based financing model. These results are possible if the approach promotes competition, is able to involve the private sector, is in line with government thinking and the preferences of patients and

[1]It may be noted that although salaries are commonly paid to reimburse providers in developing countries, fee-for-service and capitation are the other provider payment methods observed particularly in number of Eastern European Countries.

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moves away from input-based funding towards output/performance based funding. Already approaches, such as 'performance based models', 'output based aid, etc., have been developed where incentives and control are build in to improve the functioning of providers (World Bank, 2004; Janisch and Potts, 2005). Such attempts aim to link output/performance with payments using contracts and have been implemented in number of settings (Brook and Petrie, 2001). One step further is to transfer power to the consumer and remunerate providers according to the number of clients they are able to attract, that is financing them through the demand side.

This demand side financing is increasingly being proposed as a possible option to increase access to RCH services in developing countries and is generating great interest (Behrman and James, 1998). The basic idea behind demand side financing in health is that subsidising demand among priority population groups for specific health services of known cost-effectiveness, whilst allowing a competitive market for its provision, may be more beneficial than using the same resources to subsidise supply (Sandiford *et al*., 2005). Demand side subsidies aim to link subsidies with patient flows, producing incentives to attract more patients as the quantity of funding received by the provider depends upon the outputs produced. As demand side financing transfers purchasing power to patients (Pearson, 2001) for the purchase of goods and services, money follows empowered patients who are able to vote with their feet. Unlike supply side subsidies, which are linked to inputs, demand side subsidies are linked to outputs. In addition, by promoting competition between providers, it creates incentives to lower prices, increase responsiveness to patients and offers a choice of providers to beneficiaries, that is although it is a demand side approach; it evokes a strong response from the supply side (Bradford and Shaviro, 2000; Gauri and Vawda, 2003). Although the presentation above provides characteristics of demand and supply side approaches as extreme ends of the spectrum, significant grey area exits, which makes it difficult to compartmentalise these approaches.

Competitive vouchers are one form of demand side financing. Sandiford *et al*. (2005) describe the working of a typical voucher scheme (see Figure 1). Government or donor agency assigns funds to a voucher agency (1), which contracts and trains service providers from public and/or private sector. This agency produces the vouchers and organises distribution to a target population (2). Voucher recipients take the vouchers to a provider of their choice and exchange them for goods or services (3). Providers return the voucher to the voucher agency (4) and are then reimbursed according to the terms of contract based on number of vouchers and agreed fees.

For a number of reasons competitive[2] voucher schemes (Sandiford *et al*., 2005), as a demand side financing strategy, are worth exploring for RCH services in developing countries. Firstly, vouchers can target subsidies more accurately, which sets voucher schemes apart from other demand side subsidy strategies. Secondly, they can stimulate demand for under-consumed services and the effect of the subsidy on consumer behaviour begins before the beneficiary reaches the health services. The voucher serves as a stimulus to attend a service provider that s/he would otherwise not have visited and therefore is particularly useful for subsidising the use of services that tend to be under-consumed from a social welfare perspective, such as family planning. They are also useful when knowledge

[2]Competition refers to competition between service providers as opposed to programmes where the voucher is redeemable at a single service provider. It is well known that competition substantially increases the potential to produce efficiency and quality improvements in the health care delivered (Preker and Harding, 2000).

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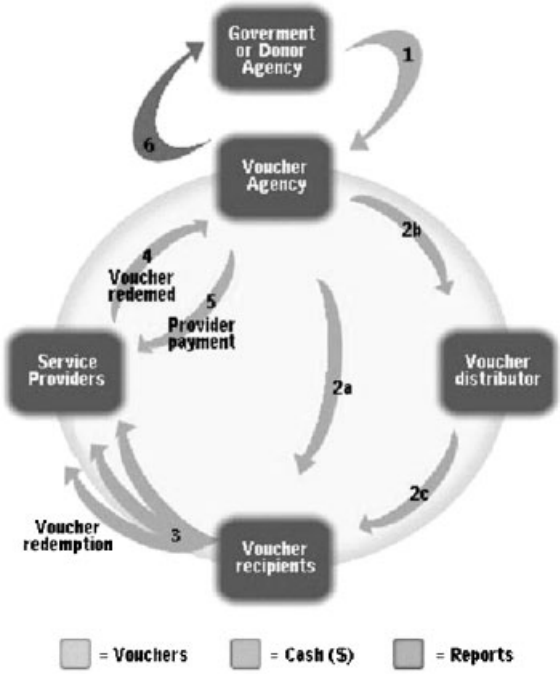

Figure 1. How does a voucher scheme work? Source: Sandiford *et al*. (2005)

of the existence of these services is poorly disseminated within the community, as vouchers can guide patients to these services, for example to obstetric care, thereby raising awareness of the importance of the services. Thirdly, vouchers can be administratively simpler than other demand side subsidies, by requiring the provider to present a voucher in order to receive the subsidy one can avoid irregularities and false claims. If designed well, the voucher can serve as a receipt and a data collection form, as well as a token of exchange. Fourthly, vouchers reduce provider-induced demand, that is when demand side subsidies are under the control of the provider, they may be used more liberally than when under the control of the consumer. Since the user controls them, vouchers reduce some of the problems with provider-induced demand. Also, because they are normally used only where a clearly defined and delimited service of fixed cost is involved, they probably reduce the risk of subsidies being claimed for more expensive conditions, that is 'diagnostic creep', than those that are actually treated. Fifth, vouchers increase patient satisfaction as the bearer of the voucher can usually choose a provider. If the voucher covers the full cost of services, or if the cost is the same from all the providers, then the bearer will usually base the choice on his/her perceptions as to which provider offers the most convenient, comfortable and best quality service. This choice in itself raises satisfaction with the service, but providers will also tend to raise the quality of their services in order to attract more voucher-bearing users. Finally, contracting of providers where vouchers can be redeemed can increase technical quality by including detailed patient management protocols and quality specifications in contracts, and monitor adherence (Sandiford *et al*., 2005). Of the advantages mentioned above, the capacity of voucher schemes to increase the responsiveness of service providers, to target subsidies

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more accurately and to animate and guide patients towards services and therefore increase the use of these services is one of the more attractive characteristics of voucher schemes, especially when one wants to increase the utilisation of priority health services by poor and vulnerable populations.

Given the above, it is not surprising to note recent interest in the use of vouchers in a number of countries, particularly in social sectors like education and health. (Bradford and Shaviro, 2000; Pearson, 2001; Gauri and Vawda, 2003; Gorter, 2003; Gorter *et al*., 2003; Islam, 2003; Mushi *et al*., 2003; Bhatia *et al*., 2006). This trend of using voucher schemes as a demand side financing approach has been on the rise recently especially in the health sector and some examples are listed below. Tanzania has introduced voucher schemes for treated mosquito nets (Mushi *et al*., 2003). Kenya with support from German development partners provides sexual and reproductive care to poor women through its voucher programme (Kenya voucher programme, 2006). Encouraged by its success with an education voucher scheme for girls, Bangladesh is keen to introduce vouchers in health specifically to reduce maternal mortality (Islam, 2003). Nicaragua has implemented highly successful voucher schemes to provide specific services to underserved populations, such as the STI/HIV/AIDS services for sex workers (Borghi *et al*., 2005; Gorter *et al*., 2006; McKay *et al*., 2006), the sexual and reproductive health care scheme for adolescents (Meuwissen *et al*., 2006) and cervical cancer screening for older rural women (Howe *et al*., 2005).

However, it should be noted that demand side financing strategies have their own limitations including high administrative and transaction costs due to various factors; including the need to quantify outputs; over-servicing because of the direct link between outputs and the receipt of subsidies; combined with moral hazard and supplier-induced demand. More importantly is the risk of corrupted activities taking place, although this equally holds true with supply side financing. Finally, the strength of the current health care system in terms of providing universal health care services 'free' at the point of delivery should not be underestimated. Hence, the approach recommended in this paper should be seen to complement the current financing strategy in addressing some of its concerns, particularly in terms of targeting government subsidies and providing access to marginalised population groups who for various reasons are unable to access RCH services within the government sector.

Thus instead of setting up a whole gamut of specialised programmes (tackling the problem from the supply side), an alternative approach that this paper recommends is to work on the demand side through competitive voucher schemes, which make use of existing health service infrastructure and social organisations and therefore may-be cheaper, more effective and more acceptable to the very poor population who hardly access the government health system. However, currently many governments and donors are still reluctant to implement voucher schemes. There are different reasons for this reluctance, including ideological objection to working with the private sector; concerns that costs of private sector services will be much higher; unfamiliarity with voucher schemes; policy issues of targeting/benefiting certain populations; administrative complexities and lack of government capacities may make it difficult to contract services out to the private sector. In the absence of any evidence on existing supply side strategy and demand side approaches, evidence-based policy making is impossible both for national governments in developing countries and international donors. Hence, this paper strongly recommends more pilots to test the competitive voucher scheme with the current supply side strategy. The need for evidence is immense and timely!

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REFERENCES

Behrman J, James CK. 1998. Population and reproductive health: an economic framework for policy evaluation. *Population and Development Review* **24**(4): 697–737.

Bhatia M, Yesudian CAK, Gorter A, Thankappan KR. 2006. Demand side financing for reproductive and child health services in India. *Economic and Political Weekly* **XLI**(3): 279–284.

Borghi J, Gorter A, Sandiford P, Segura Z. 2005. The cost-effectiveness of a competitive voucher scheme to reduce sexually transmitted infections in high-risk groups in Nicaragua. *Health Policy & Planning* **20**(4): 222–231.

Bradford DF, Shaviro DN. 2000. The economics of vouchers. In *Vouchers and the Provision of Public Services*, Steuerle CE, van Doorn O, Peterson GE, Reischauer R (eds). Brookings Institution Press: Washington, DC.

Brook PJ, Petrie M. 2001. Output-based aid: precedents, promises and challenges. In *Contracting for Public Services: Output-Based Aid and its Applications*, Brook PJ, Smith SM (eds). Oxford University Press: New York.

Brugha R, Zwi A. 1999. Sexually transmitted disease control in developing countries: the challenge of involving the private sector. *Sexually Transmitted Infections* **75**: 283–285.

Bulatao RA, Ross JA. 2003. Which health services reduce maternal mortality? Evidence from ratings of maternal health services. *Tropical Medicine & International Health* **8**(8): 710–721.

Janisch CP, Potts M. 2005. Smart aid—the role of output-based assistance. *The Lancet* **366**(9494): 1343–1344.

Ensor T, Cooper S. 2004. Overcoming barriers to health service access: influencing the demand side. *Health Policy and Planning* **19**(2): 69–79.

Gauri V, Vawda A. 2003. Vouchers for basic Education in Developing Countries, A Principal-Agent Perspective. *Policy Research Working Paper* 3005; Washington DC, The World Bank.

Gorter A. 2003. Evidence for using competitive voucher schemes and related methods for ensuring young people have access to health service interventions designed to prevent or provide care for HIV/AIDS. Background paper *Consultation on the health services response to the prevention and care of HIV/AIDS among young people*. WHO, UNICEF, UNFPA, UNAIDS, YouthNet, Montreux, Swiss.

Gorter A, Sandiford P, Rojas Z, Salvetto M. 2003. *Competitive Voucher Schemes for Health. Background Paper.* ICAS/Private Sector Advisory Unit of The World Bank Group, Washington, DC.

Gorter AC, Segura ZE, Medina JA, McKay JE. 2006. *Effectiveness and impact of a long running competitive voucher program providing quality STI/HIV care to groups most at risk of HIV in Nicaragua*. Poster, XVI International Conference on AIDS, Toronto, Canada, 13–18 August.

Gwatkin D, Guillot M. 1999. The burden of disease among the global poor: current situation, future trends and implications. *Global Forum for Health Research & Human Development Network*. The World Bank: Washington DC.

Hanson K, Berman P. 1998. Private health care providers in developing countries: a preliminary analysis of levels and composition. *Health Policy and Planning* **13**(3): 195–211.

Howe SL, Vargas DE, Granada D, Smith JK. 2005. Cervical cancer prevention in remote rural Nicaragua: a program evaluation. *Gynecologic Oncology* **99**: S232–S235.

Islam MK. 2003. Health Financing Options for the Poor: A National Review. An Assessment of Health Care Financing Options for the Poor. Report prepared for WHO-Bangladesh.

McKay JE, Campbell DJ, Gorter AC. 2006. Lessons for management of STI treatment programs as part of HIV/AIDS prevention strategies. *American Journal of Public Health* **96**: 7–9.

DOI: 10.1002/jid

Meuwissen LE, Gorter AC, Knottnereus JA. 2006. Impact of accessible sexual and reproductive health care on poor and underserved adolescents in Managua, Nicaragua: a quasi-experimental intervention study. *Journal of Adolescent Health* **38**(1): 56.e1–56.e9.

Mushi AK, Schellenberg JR, Mponda H, Lengeler C. 2003. Targeted subsidy for malaria control with treated nets using a discount voucher system in Tanzania. *Health Policy and Planning* **18**(2): 163–171.

Pearson M. 2001. *Demand Side Financing for Health Care*. DFID Health Systems Resource Centre: London.

Preker A, Harding A. 2000. The economics of public and private roles in health care: insights from institutional economics and organizational theory. *Health, Nutrition and Population Series*. The World Bank: Washington DC.

Sandiford P, Gorter A, Rojas Z, Salvetto M. 2005. *A Guide to Competitive Vouchers in Health*. Private Sector Advisory Unit, The World Bank Group: Washington, DC.

United Nations Population Fund. 1999. Maternal Mortality Update: A Report on UNFPA Support to Reduce Maternal Mortality. New York: United Nations. http://www.unfpa.org/tdp/mmupdate/hilites.htm.

Uplekar M, Juvekar S, Morankar S, Rangan S, Nunn P. 1998. After health sector reform, whither lung health? *International Journal of Tuberculosis and Lung Disease* **2**(4): 324–329.

Website Kenya voucher programme. 2006. http://www.output-based-aid.net/index_eng.html, accessed 14-9-2006.

WHO. 2004. Making pregnancy safer. Fact sheet No. 276 (http://www.whoint./mediacentre/factsheets/fs276/en/).

World Bank. 2001. *World Development Report*. Oxford University Press: New York.

Brook PJ, Smith SM (eds). Oxford University Press: New York.

World Bank. 2004. *World Development Report 2004: Making Services Work for Poor People*. Oxford University Press: New York.

DOI: 10.1002/jid