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User Fees for Maternal Care in Low Resource Settings: Sub-Saharan Africa
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III. ABSTRACT

User fees are in place in most Sub-Saharan African countries since the 80's and have been extended to maternal healthcare services. However, the effects of these type out-of-pocket payments in contexts where poverty deeply affects women's purchasing power are not yet clear and major difficulties arise when choosing sustainable financial systems for maternal healthcare in low income settings.

This dissertation asks for the purpose of user fees for maternal care in low resource settings and is based on a literature review. While the research took place, a dynamic table was created to store, describe and code each of the articles, which resulted into: (1) a major classification of the arguments pro and against user fees; (2) a description of the alternative mechanism for financing maternal care in low income settings; (3) a scheme of patterns and recommendations for implementation of different healthcare financing mechanism in low income regions; (4) a model of analysis regarding the effect of cultural barriers on the demand for formal maternal healthcare in low income settings; (5) a model of analysis regarding the mix of mechanisms for financing maternal health in low income settings; and (6) a project proposal for a deeper future exploration of "the influence of price in the demand for maternal healthcare among different cultural contexts in low income settings".

User fees can be harmful in a context where women are very poor and where healthcare services, like maternal care, have suboptimal levels of consumption. Therefore, when asking for what are the alternatives to out-of-pocket expenses demand side approaches must be considered (like voucher schemes, community insurance, cash transfers and loan funds), as well as supply side approaches (like reimbursement schemes, cost-effectiveness analysis, etc.) and as other set of interrelated tools (like improving management skills, refining information systems, adopting anti-corruption measures, investing in project design, and promoting community participation in decision making processes).

Still, all these tools may fail if context is not taken into account. Therefore, the search for the right solution has to be preceded by a comprehensive analysis of the context and an identification of the problem. It is necessary to understand the cause for the lack of demand for maternal healthcare and keep in mind that the reasons for the arousal of the problem may be different from community to community.

IV. RESUMO

As taxas moderadoras estão implementadas na maioria dos países da África Subsariana, estendendo-se aos cuidados de saúde materna. Todavia, as consequências das taxas ao utilizador na saúde materna, em contextos onde a pobreza afecta profundamente o poder de compra das mulheres, não são claras e colocam-se grandes dificuldades em determinar quais os mecanismos financeiros que melhor se adequam.

Esta dissertação pergunta assim “qual o propósito das taxas moderadoras para a saúde materna em regiões de baixo rendimento?”, recorrendo para tal a uma revisão de literatura. Ao longo do processo de pesquisa, foi criada uma tabela dinâmica com o intuito de armazenar, descrever e codificar cada um dos artigos que teve como resultados: (1) uma ampla classificação dos argumentos a favor e contra as taxas moderadoras; (2) uma descrição dos mecanismos alternativos ao financiamento da saúde materna em contextos de baixo rendimento; (3) a construção de um esquema de padrões e recomendações para a implementação dos diferentes mecanismos de financiamento em regiões de baixo rendimento; (4) a criação de um modelo de análise e decisão que permite a escolha de conjuntos de mecanismos financeiros adaptados ao contexto; (5) a elaboração de uma proposta de projecto para explorar a influência do preço na procura por cuidados de saúde materna em diferentes contextos culturais de regiões de baixo rendimento.

As taxas moderadoras podem ser prejudiciais em contextos de pobreza onde os serviços de saúde, como é o caso dos serviços de saúde materna, se caracterizam por baixos níveis de consumo. Quando se pergunta que alternativas existem aos pagamentos do utilizador, devem ser consideradas abordagens do lado da procura (ex.: seguros comunitários, vouchers, transferências monetárias, etc.), do lado da oferta (ex.: políticas de reembolso, análises de custo-efectividade, etc.) e outras ferramentas interrelacionadas (ex.: melhorar as competências de gestão e os sistemas de informação, adoptar medidas anticorrupção, investir no design dos projectos, promover a participação da comunidade, etc.). Contudo, todas estas ferramentas podem falhar caso o contexto não seja levado em conta. Assim sendo, a procura pela solução mais acertada deve ser precedida de uma análise detalhada do contexto que permita compreender mais aprofundadamente as causas da falta de procura de cuidados de saúde materna em regiões de baixo rendimento e encontrar soluções adaptadas para cada comunidade.

V. INTRODUCTION

[Theme] This dissertation deals with the issue of user fees for maternal health care in Sub-Saharan African.

[Object: Why Maternal Health] Approximately 1000 women die, per day, as a result of obstetric complications and about 20 times more suffer injuries, infection and disabilities after childbirth (UNICEF, 2011, 2012b). At the same time, around 8000 babies die daily at less than 28 days (UNICEF, 2012e) and these deaths and disabilities are not equally distributed around the world.

Having healthy women and newborns is a key to success for any society as this increases family well-being and overall life expectancy (Filippi V et al., 2006; The World Bank, 2012; WHO, 2005). What is more, mortality and morbidity of mothers and babies has a multiplicity of implications in terms of costs. First it represents a loss of human capital and productivity. Second, the demand for health care entails, among other things, transportation expenses, medicines, payments for the utilization of services and food during the treatment, which affect household finances, leaving less money available for the rest of the family and consequently for the health and welfare of the remaining adults and children in the household. Thirdly, the deterioration of maternal and child health is culturally and psychologically costly, since families are not prepared to deal with such tragedies and it is noteworthy that even the obstetric implications may also interfere with the behaviour of women and their families when it comes to decisions on fertility, allocation of time and resources, child care, nutrition and education (Islam M & Gerdtham U, 2004; Jowett M, 2000; WHO, 2005).

In terms of poverty reduction and equality, maternal and newborns health (perinatal health) has a large number of positive externalities: maternal health contributes to women's and physical and psychological strengthening and increases their empowerment and ability to deal with inequality; improving perinatal health reduces the weight of the expenditure on the poorest families, nullifies the effect of mortality and morbidity in productivity and reduces the gap between rich and poor. Finally, good reproductive health care contributes to reducing the impact of infectious diseases, allows treatment to prevent malaria in mothers and babies and prevents transmission of IVH / AIDS and other diseases (Filippi V et al., 2006). Thus, more than an aspiration itself maternal and new-borns health must be understood as a hyperconductive state of collective health and as a force in economic and social development (WHO, 2005).

[Why Maternal Health in Sub-Saharan Africa] Maternal care is not only an important marker of the effectiveness of health systems. It is a strong indicator of a country level of economic and social development. Yet, of all the regions of the world, Sub-Saharan Africa alone accounts for about half of maternal deaths and has the highest neonatal mortality rate (Stanton C, Lawn J, Rahman H, Wilczynska-Ketende K, & Hill K, 2006; UNICEF, 2012c, 2012d). For the Sub-Saharan region it is therefore urgent to find solutions that stimulate both supply and demand of effective maternal health care.

[Problem] User fees are in place in most Sub-Saharan African countries (James C, Morris S, Taylor A, & Keith R, 2005) and are extended to maternal health care. Yet, the effects of user fees in these settings, where poverty deeply affects women's purchasing power are not yet clear. One of the major difficulties that arise is finding to design a system of financial transfers that can be sustainable.

[Research Question] This poses a question: "What is the purpose of user fees for the use of perinatal care in low resource settings across Sub-Saharan Africa?"

[Specific Questions] In this study we try to answer this and to understand if user fees are an appropriate tool for improving the demand for maternal health in Sub-Saharan Africa; to understand the consequences of user fees in terms of efficiency, revenue and equity; to acknowledge the impact of user fees in maternal health care supply; and to compare user fees with other mechanisms of financing maternal health in Sub-Saharan Africa.

[Specific objectives] In order to address these questions we started by a conceptual analysis where we defined user fees and how they are implemented. Then we analysed how user fees are related with microeconomics theory and, specifically, how they affect consumers' and (and to a lesser extent supplier's) behaviour. Subsequently we searched for the context of user fees in low resource settings, exploring their strengths and weaknesses. In a fourth step we compared these arguments to the reality of maternal health care, and analysed specific challenges imposed by maternal health care. In a fifth step we describe some experiences of removing user fees in maternal health in African and non-African settings. And finally we described alternative mechanisms for financing maternal health care in Sub-Saharan Africa.

[Pertinence] A body of research emerges from this study which is able to help other researchers see the full picture of maternal health user fees in Sub-Saharan Africa, and to expand academic knowledge. Because this thesis is integrated in the masters "History, International Relations and Cooperation" it enriches the discussion of these themes with intercultural concerns, and integrates a conceptual health

economics framework within a historical analysis, thus contributing to an enlarged understanding of what are and have been the foundations of the maternal health user fees mechanism in these particular settings. In addition, this is a research in which practical solutions are discussed with a view to improving maternal healthcare in Sub-Saharan Africa.

The method adopted to store data ensured efficient and consistent articulation of information. The systematic method adopted for classifying and organizing articles led me to a clear scheme of patterns and recommendations that *per se* resulted in an innovative and comprehensive model of analysis of the effect of cultural barriers on the demand for formal maternal healthcare in rural Sub-Saharan Regions. In addition, not only is demonstrated how the suggested model could be used to study specific contexts through a practical example; as it is explained the value of such kind of approaches for studying the potential mixes of mechanisms for financing maternal health care in low income settings.

While most of the studies produce sets of recommendations adapted to a specific financial mechanism, the objective of this study consisted in gathering recommendations from all different schemes in order to produce a new methodology. The presented thesis also resulted into a project proposal in the field developed for a deeper future exploration of the impact of financial mechanisms in the demand for maternal healthcare in Low and Middle income countries. Ultimately, this research provides a learning base for undertaking further studies.

[Limitations] As a novice researcher the approach used to the identification, critique and articulation of the literature may not have been as thorough as that of more experienced researchers. Time constraints did not allow exploring the available literature more extensively. Resource constraints limited the thesis to a theoretical discussion, which would have benefited from experience in the field.

VI. METHODOLOGY

The methodology adopted for this study was based on a literature review undertaken from 5 May 2012 to 25 September 2012.

[Identifying the research topic] In order to identify the research question it was first defined a research topic relevant to the programme of this Master's, to my Bachelors background, and to my professional experience. After studying economics, I worked as a volunteer in Kenya, and since my aspiration is to work in the field of international health cooperation, the issue of maternal health care costs in Sub-Saharan Africa called my attention. While exploring literature and during the peer discussions a question kept coming into my mind – the cost to whom? Cost differs from consumer to supplier's perspective. While exploring the cost of maternal care for supply, it the study faced the problem of missing data. Therefore focusing on a consumer perspective seemed to be the best option. Later it became clear that given the financial limitations of doing field research it would be more feasible to centre the discussion on out-of-pocket health expenditure in the form of official payments, instead of covering all types of demand costs like unofficial payments, transportation costs, opportunity costs, etc. Then building the exact question was easy – I always like to know why things exist in the first place.

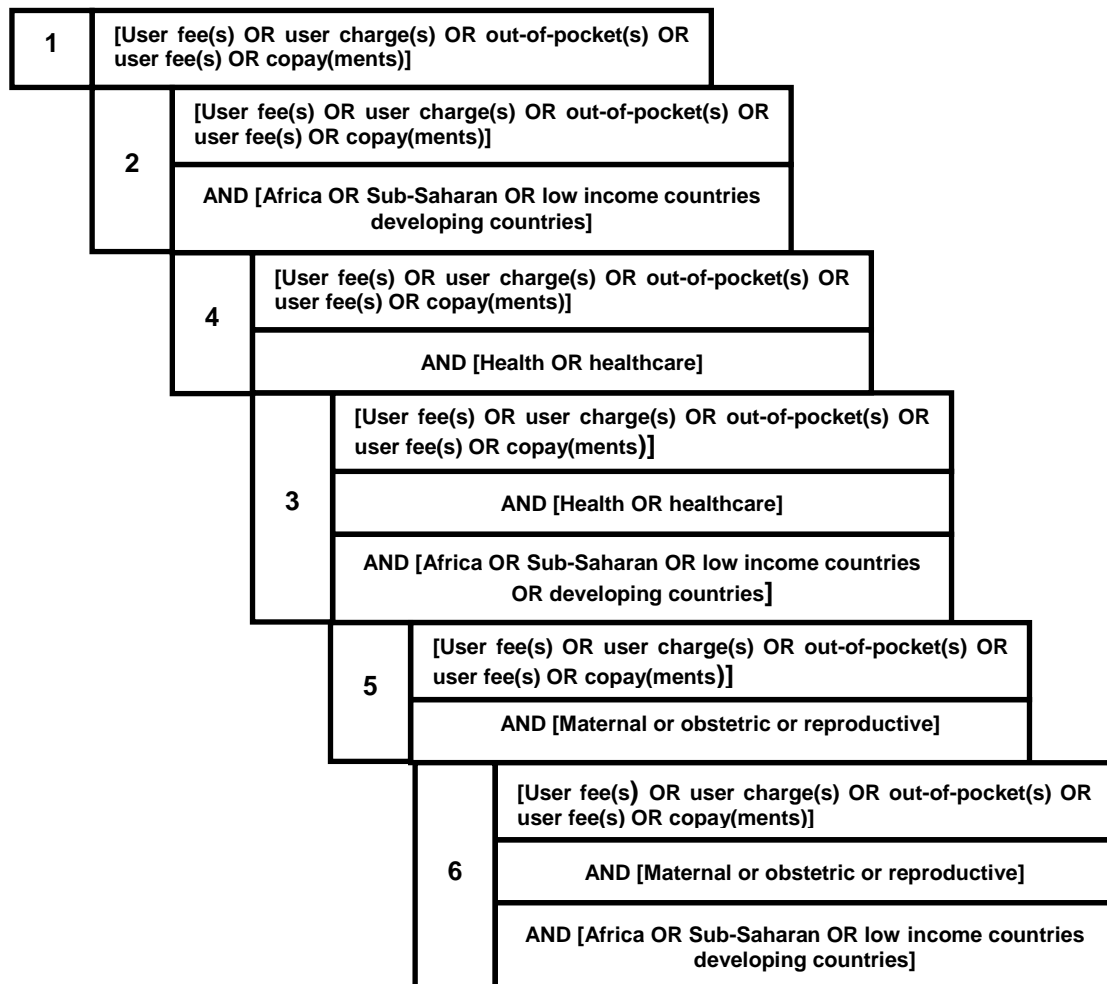
[Inclusion criteria] Inclusion and exclusion criteria were established to identify the literature that addressed the research question and the literature which did not. The review included primary and secondary published literature as well as unpublished literature in the English language only. The thematic selection of articles was made using the following criteria: theoretical foundations of user fees; health care user fees; analysis related to health user fees in Low and Middle Income Countries and in Africa; analysis related to Maternal health in Low and Middle Income Countries and in Africa; general analysis of the importance or experience of user fees in maternal health; and recommendations or alternative mechanisms for financing health or maternal health in low income settings.

[Exclusion Criteria] Primary and secondary research not related to the topics above was excluded as well as non-English literature.

[Set of Keywords] To search the above topics, sets of keywords, refined during the research process, were designed and combined together as can be seen in Figure 1. The key words used are listed below. For example, in search (1) we searched for articles that had at least one of the following expressions: user fees, user charges out of pocket, copayment or copayments were. In search 2 we looked for articles that had

at least one of those expressions combined with least one of the following expressions:
Africa, Sub-Saharan, low income countries or developing countries.

Figure 1: Set of keywords



Another set of key words was used to gather specific information on policies that are alternatives to user fees. The key words were searched for the specific policies, by searching for: [voucher OR conditional cash transfer] AND/OR [vouchers OR conditional cash transfers] AND/OR [maternal or obstetric or reproductive] AND/OR [health OR healthcare].

[Data Sources] Six specific databases, namely Pubmed, Science Direct, Medline, SocIndex, Academic Search and Econlit, and a web browser, Google, were used to collect the articles reviewed. Additional articles were also collected through reference citation and suggestions of experts from the Institute of Public Health, The Department of Economics and the Centre of African Studies of The University of Porto.

[Data Organization] While the research took place, an excel data base was created to store and classify each of the articles (please consult the excel file in the

CD). Firstly, a number was given to each article, which was classified according to its reference, date, objective, method and results. Secondly, articles were classified according to their type, if primary or secondary literature. Thirdly, a set of 4 thematic categories were defined: articles related to the theory of user fees were labelled as “Theory”; articles describing the experience of user fees in Africa were labelled as “Africa”; articles describing the experience of user fees in Low and Middle Income Countries outside Africa were labelled as “LMI Countries”; and articles describing the experience of user fees in maternal health were labelled as “Maternal Health”. Table 1 shows the number of articles reviewed for each category, out of a total of 144 articles.

Year						Type of literature		Theme				Total
1960s	1970s	1980s	1990s	2000s	2010s	Primary	Secondary	Theory	Maternal Health	LMI Countries	Africa	
2	1	1	36	72	32	106	36	23	40	64	59	144

Finally, a major classification was developed taking into account the arguments defended by the authors. For example, articles discussing the theme of user fees (theme A) received a binary code (number 1) and gathered in subgroups like (1) articles in favour of user fees; (2) articles with arguments against user fees; (3) experiences and opinions on the abolition of user fees, etc. Subgroups received the same binary treatment and afterwards they 1s and 0s were counted, as can be seen in Table 2.

Table 2: Number of Articles per Classification Criteria

Criteria		Nº of articles
A. User Fees	1. Arguments in favour of user fees	8
	2. Arguments against user fees	27
	3. Experiences and opinions on the abolition of user fees	23
	3.1. Citations on the advantages of removal of user fees	7
	a) Gains political support	1
	b) Reduces administration costs	1
	c) Makes services affordable	3
	d) Reduces delays in seeking cash	1
	e) Protects against indebtedness	1
	f) More equitable revenue	2
	g) Increases service use by poor people	7
	h) Avoids need for exemption	1
	3.2. Citations on the disadvantages of removal of user fees	8
	a) Less Revenue	5
	b) Less quality	1
	c) Risk of informal charges	3

	d)	Disrespect for the informal system	1
	e)	Does not protect from other costs	2
	f)	Health staff workload	3
	g)	Low availability of drugs and medical supplies	2
	h)	Need of Funding	2
	i)	Does not end inequality	1
	j)	Implementation process	3
	4.	Recommendations the abolition of user fees	9
	5.	Articles that suggest complementary interventions to user fees	12
	6.	Articles that discuss user fees in emergency situations	8
	7.	Descriptions of the impact of fees in the education sector	12
	8.	Articles which state user fees were introduced in the 80s	21
	a)	Ability to pay and equality	31
	b)	Administrative costs	1
	c)	Low efficiency	3
	d)	Quality	10
	e)	Revenue	10
	f)	Utilization	11
	g)	Central collection of revenue	2
	h)	Local collection of revenue	2
B. Alternative mechanisms for financing maternal health	1.	Pre-payment	3
	2.	Community insurance	11
	3.	Conditional cash transfers	16
	4.	Voucher schemes	19
	5.	Schemes for financing transport	7
	6.	Private insurance	9
	7.	Contracting	8
	8.	Equity funds	9
	9.	Voucher schemes	17
	10.	Universal coverage	16
	11.	Tax revenue	12
	12.	Social Health Insurance	17
	13.	Insurance in general	22
	14.	Public private partnerships	15
	15.	Subsidies	20
	16.	Social franchising	18
C. Other Considerations	1.	Higher funding	3
	2.	Leakage/corruption	5
	3.	Health Resources	4
	4.	Referral System	6
	5.	Availability of Drugs	14
	6.	Informal fees	20
	7.	Articles stating that user fees are not the only barrier to the demand for health care	21
	8.	Articles stating that context matters	23
	9.	Articles describing the presence or the concept of moral hazard	12
	10.	Articles explaining what is adverse selection	11
	11.	Importance of improving maternal health	14

[Terminology] In order to simplify this analysis, due to extreme pertinence of the international debate on the concept of development, we will refer to Africa, Asia and the Pacific (excluding Japan, Australia, New Zealand and the member States of CIS in Asia), Latin America and the Caribbean as **Low and Middle Income Countries** and to Europe, excluding the European transition economies, Canada, The United States of America, Japan, Australia and New Zealand as **High Income Countries**. The terms “user fees”, “out-of-pocket expenditure/expenses” and “user charges” will be taken as synonyms, as well as the terms “Maternal Health” and “Reproductive Health”

VII. RESULTS

1. Definition of user fees

A user fee is a financial contribution of the user, made at the point of service, each time he/she uses health care. It is a share of the total expense for consultations, examinations or hospitalizations that, by imposing a financial contribution to the user, limits the “moral hazard”, controlling an eventual excess of demand.

“Moral hazard” is the consumption of health care even when total cost of the service exceeds benefits. In 1963 Kenneth Arrow (1963) described this phenomenon, arguing that it was a non-efficient behaviour and outlined an argument for public intervention in the healthcare sector (Arrow K, 1963).

In response Mark Pauly (1968) demonstrated that it was fully rational to consume more health care if a person is not paying for it (Pauly M, 1968). Because healthcare consumers do not pay for the total cost of the service, but only for a share of it (or nothing at all), price can be considered zero and at a zero price the consumption of health care is infinite, which pose an unbearable burden on suppliers. User fees, by limiting consumers' use of the services, were therefore seen as way to solve this problem by forcing people to pay a positive for the healthcare they consume.

In 1974 the “RAND experiment” empirically supported the theory that the costs of moral hazard exceed its benefit causing a welfare loss to society (Manning W et al., 1987; Newhouse JP, 1974; Nyman, 2007). Since the 70's, user fees, even user fees in the form of effective and appropriate hospital procedures, has been understood as a mechanism that could reduce moral hazard and unnecessary health care use substantially using cost-sharing policies with little or no measurable effect on health (Manning W et al., 1987; Newhouse JP, 1974; Nyman, 2007). In other words, copayments were understood as important in controlling excess demand, without reducing necessary health care.

2. How user fees affect consumer behaviour

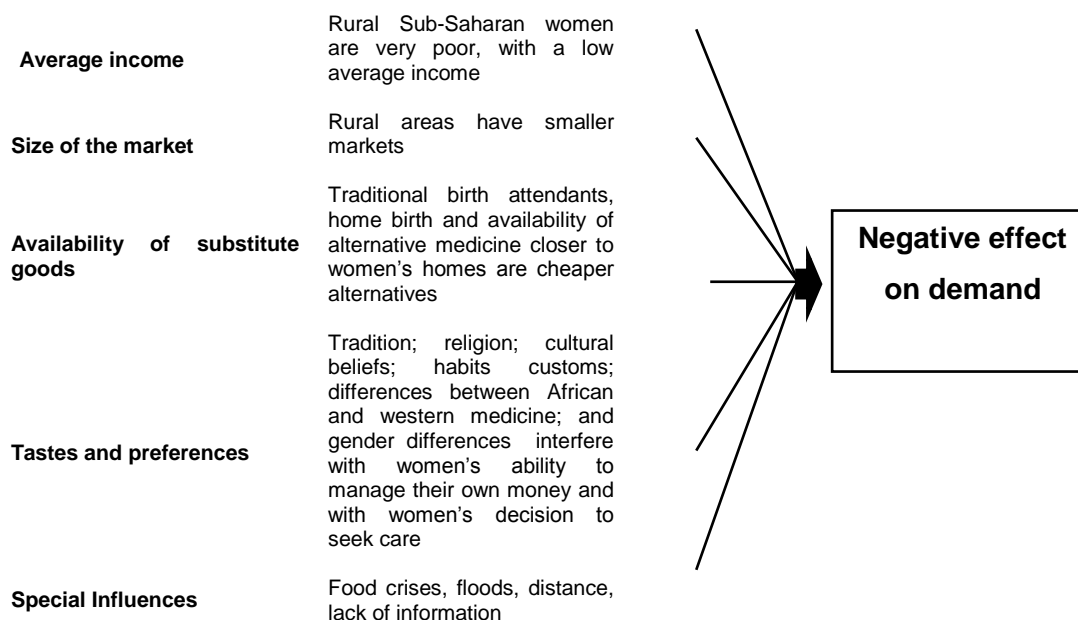
Several factors are able to influence demand and effect of user fees on consumer behaviour. Aspects such as average income, size of the market, availability of substitute goods, tastes, preferences and special influences affect the decision of any consumer (Samuelson & Nordhaus, 2005).

Poor people are especially vulnerable during pregnancy (Borghi, Ensor, Somanathan, Lissner, & Mills, 2006); cheaper alternatives to institutional maternal health care are widely available; tradition, religion and cultural beliefs interfere with women's decision to seek care; and rural Sub-Saharan women frequently have to deal with other difficulties including food crises, floods, long distances, lack of transport and poor information (See Figure 2).

All these factors combined contribute to an extremely low effective demand for maternal health care in rural Sub-Saharan Africa. For instance, it is estimated that 64% of the births in Sub-Saharan Africa lack the assistance of a skilled birth attendant (UNICEF, 2012a).

Figure 2: Factors influencing market demand

Source: (Samuelson & Nordhaus, 2005)



In parallel with these factors, demand is also influenced by the price of the service. To understand the effects of user fees we can establish a parallel with

microeconomics theory and analyse the effects on demand of a price increase. The introduction of a user fee can be looked at in the same way as an increase in the price of a given service.

The relation between a market price and the demanded quantity of a given good has a particular characteristic, when everything else is held constant (namely the factors cited above), an increase in price causes consumers to lower their consumption – this is known as the “law of downward-sloping demand” (Samuelson & Nordhaus, 2005).

As user fees represent an extra price for the user, it is fair to state that given the nature of user fees, they tend to decrease consumption. In this sense **user fees negatively affect consumers' behaviour.**

However, different consumers react differently to a price increase, ie, have different price elasticities. Price elasticity is thus the measure of the real impact of a price on the market. More exactly, “price elasticity of maternal healthcare” describes how much the quantity of maternal healthcare demanded may change with the introduction of user fees.

The more demand is sensitive to price, the more it is elastic. Therefore, for a price elastic woman (a woman who responds to price), the higher the price increase caused by the introduction of a user fee, the greater the decrease in the quantity of maternal health sought by her. On the contrary, the more “price inelastic” a woman is, the less she reacts to price increases, and the smaller is the impact of the fee on the demand quantity. For example, a woman with a low purchasing power is more price elastic, thus in face of a price increase in maternal care, she will make more reductions to the quantity of maternal care purchased than a woman with a higher purchasing power.

Different services of reproductive health can also have different types of elasticity. For instance, in a situation where a woman is more in need of technical/institutional assistance (such as complications during a delivery) her demand for assistance will be less price sensitive - more inelastic - than in a situation where her need for technical/institutional assistance is perceived as lower (such as during a normal delivery, family planning or pregnancy monitoring) and she will demand care at any price. Another example is, since as women often value more the health of their babies than their personal health, services that directly improve babies' health may tend to be more price inelastic than services which do not directly affect their babies.

Thus, women's elasticity regarding maternal healthcare plays a very important role in determining the level of utilization of these services and their reaction to an increase in price. In this sense, elasticity is capable of influencing the amount of health

care demanded and the total revenue accumulation (proportion of price times the transacted quantity). This happens because if the demand for maternal healthcare is very elastic, a small percentage change in price (introduced by a user fee) may cause a great percentage decrease of maternal care demanded, and lead to a decrease in total revenue (Samuelson & Nordhaus, 2005). In this case, from the supplier's perspective, the additional revenue collected from the user fee does not compensate the loss in demand.

3. How user fees affect supplier behaviour

If we analyse the behaviour of producers upon the introduction of a user fee, we see that the relation between a market price and the supplied quantity of a given good has the opposite characteristic of demand, since it is an upward-sloping curve, when the price of a commodity is raised (and other things are kept constant like total amount suppliers receive, how they are paid, etc.) sellers tend to offer more of the commodity (Samuelson & Nordhaus, 2005). Therefore, user fees may have the effect of increasing the supplier's will to provide more health care.

The major factor influencing supply elasticity is production capacity. When all inputs can be readily found at going market prices and it is easy to adjust production, supply tends to be very elastic. When this does not happen, the response of suppliers to a change in price tends to be very sharp or inelastic. These are the main factors influencing suppliers' response to price:

- 1) **Costs of production:** when costs are higher than the market price it might turn out to be impossible for the supplier to sustain the production, or, at least to sustain the production at the same quality
 - **Prices of inputs:** the prices of labour, energy, machinery and other input commodities have a strong effect on production costs
 - **Technological advances:** technological advances may lower the amount of input needed to produce a same given good
- 2) **Prices of related goods:** If the price of one production substitute increases, the supply of another substitute will increase
- 3) **Government Policy:** health considerations, taxes and input-wages can significantly determine prices.
- 4) **Special influences:** pharmacy industry and withdrawal of health personal from rural areas will affect market structure and its price. (Samuelson & Nordhaus, 2005).

4. How user fees appeared in the African context?

The financial mechanism of user fees was developed in the West back in the 70's with the fundamental goal of regulating excesses of demand, but it is important to understand when and why they were introduced in Africa.

Thirty years ago slow economic growth and record budget deficits forced reductions in public spending, particularly affecting the economies of Low and Middle Income Countries who had to deal with the structural adjustment policies recommended by donors (Akin J, Birdsall N, & Ferranti D, 1987; Ruger J, 2005; Yates R, 2009).

To come up with a solution for the scarcity of Sub-Saharan health care funds, The World Bank suggested alternative approaches. User fees were accepted as an opportunity for financing the health and social sectors in Low and Middle Income Countries in the 80s (Gilson L, Russell S, & Buse K, 1995; Ridde V & F., 2010; Yisa IO, Awalade V, & Akinola., 2004). The introduction of user fees as a possible solution for financing health care in Africa was proposed (along with the decentralization of federal government, encouragement of business enterprises, promotion of nongovernment involvement and establishment of health insurance) in the study of 1987, *Financing Health Services in Low and Middle Income Countries : An Agenda for Reform*, and in the bank's seminal *World Development Report, 1993: Investing in Health* (Akin J et al., 1987; The World Bank, 1993). This suggestion led to the accusation of creating a climate of high levels of lending, advocating disability-adjusted life years as a health measure, disregard for the environment and indigenous populations, prevalence of economic outcome measures, insufficient evaluation of projects, lack of sustainability of projects, poor evidence base for policies, promotion of privatization, and compelling countries to adopt structural adjustment for their economies (Ruger J, 2005). Many health professionals and representatives of non-governmental organisations accused The World Bank of introducing the concept of user charges. Andrew Creese, a health economist at the World Health Organisation, also stated that «*Increases in maternal mortality and in the incidence of communicable diseases have been attributed to such policies [user charges]*» (Creese A, 1997: 203). On the other hand, According to Kamran Abbasi, Alex Preker, a principal economist at the bank and co-author of its 1997 strategy for the health, nutrition, and population sector, believes that the bank's policy was misinterpreted and argues that «*user charges are part of a panoply of instruments available to countries for resource mobilisation*» and that «*The bank doesn't have a particular policy on whether user charges should or shouldn't be used*» (Abbasi K, 1999: 1005). Misinterpreted or not,

the fact is that today user fees are a recognized way of financing health systems in many Sub-Saharan countries with many implications.

According to Gilson (1997) there were two main vehicles for implementation of user fees in Africa (Gilson, 1997). One principal vehicle is the Bamako Initiative the other one is what she calls the “Standard model”. The Bamako Initiative (BI) was promoted by the United Nations Children's Fund (UNICEF) and the World Health Organization (WHO), adopted by African health ministers in 1987 and it is mostly used in francophone countries; (Gilson L et al., 2000; IDS, 2012). It appealed to the need for *«community and individual self-reliance and participation in planning, organisation, operation and control of primary healthcare, making fullest use of local, national and other available resources»* (IDS, 2012). The Bamako Initiative advocated that revenue should be raised and controlled at a primary level and that funds (user fee or equality payment for local taxes) should be locally managed by the community (Gilson L, 1997; IDS, 2012). It also stipulated that fees collected from patients should not replace existing health budgets. Critics argue that equity was only a minor goal in BI schemes, and that no country adopted significant programmes as developing community management and community participation (Gilson L, 1997; Gilson L et al., 2000).

Instead of promoting the introduction of fees for curative hospital services, the “Standard Model”, is based on the concept that user fees should be a nationwide mechanism controlled at a regional or district level, thus, having the potential positive effect on the referral systems; on facilities' reallocation of resources; on the quality and coverage of primary care; and on the protection of poor people (Gilson 1997).

It is said that user fees can be used to improve staff salaries, to increase employees' motivation and performance, to purchase drugs (securing a continuous stock of medicines) and to upkeep buildings and equipment (Grepin K, 2009; IDS, 2012). What is more, more resources collected in a decentralized way, unlike a centralized heavy structure, may have positive effects by contributing to additional quality improvements (IDS, 2012).

In the work “User Charges in health care: a review of the concept goals and implications to national health systems”, Yisa (2004) also describes how despite the small contribution to national health budgets, user fees are an important source of revenue at the level of individual facilities (Yisa IO et al., 2004).

Studies from Vietnam stress the importance of user fees as a source of revenue, given the shortage of the fiscal budget for health care due to the collapse of the cooperative system (Dao H et al., 2008; Sepehri A, Chernomas H, & Akram-Lodhi H, 2005). According to Sepehri (2005) revenues from user charges accounted for 30% of public hospital revenue, and replaced a salary system based upon a centrally determined global budget with provision-based bonus systems, which had positive effects on regulation.

A further study, from Cambodia, describes how the revenue from user fees was used to begin a cycle of financial sustainability and to improve the quality of hospital services, increasing the satisfaction rate for user-fee system up to 92.7%, and doubling the number of outpatients (Akashi H et al., 2004). While hospital revenue increased, the revenue generated was used to compensate low government salaries, and to expand hospital services.

b) Demand and Cost Reduction

In terms of utilization, the major argument is that co-payments reduce frivolous demand for care, promoting cost consciousness among patients, i.e. consumer moral hazard, and have the potential to reduce supply moral hazard, limiting the prescription of drugs, unnecessary investigation and other out-of-pocket costs that result from the perspective of free care (Ensor T & Ronoh J, 2005; Haddad S & Fournier P, 1995; IDS, 2012; Yisa IO et al., 2004).

c) Equity

The revenue from urban services could be used to cross-subsidise disadvantaged people in rural areas promoting decentralization and price coordination

among different facilities (Gilson L et al., 1995; James C et al., 2006; Yisa IO et al., 2004). At the same time fees could be applied to the non-poor using target mechanisms favouring low income populations in a cost effective way, one being the use of exemptions (Akashi H et al., 2004; Gilson L, 1995 1997; Gilson L & McIntyre D, 2005; IDS, 2012; Nanda P, 2002).

The study from Cambodia cited above is an example of how user-fee revenue offered payment exemption to low-income users promoting equality, since demand for the services increased instead of decreasing (Akashi H et al., 2004). Another study from Ghana also reports a free exemptions policy, that addressed the health needs of the poor in a cost effective way (Gilson L, 1995).

In a case study of Tanzania it is maintained that *«Because of inadequate supplies of drugs and of food at hospitals many patients had to incur substantial costs to use the ‘free’ services in addition to travel costs. It is therefore concluded that modest charges, with attempts to exempt the poor, would be less inequitable than the existing situation, if the revenue could be used to ensure that supplies were always adequate at government health services.»* (Smith B & Rawal P, 1992: 329)

d) Referral

Problems with referrals and coordination of health care are acute in most Low and Middle Income Countries, where patients go directly to the emergency room, receive a diagnosis and/or treatment and return home without a transfer of information between the hospital and their local clinic; and where, sometimes, practitioners working in isolation avoid referring patients due to the fear of losing the client (Mwabu G, 1990; The World Bank and GAVI Alliance, 2010).

By setting higher prices for higher levels of care, user fees are said to stimulate the prioritization of low level facilities, thus rationalizing patient's use of referral care (Ensor T & Ronoh J, 2005; IDS, 2012; Mwabu G, 1990; Yisa IO et al., 2004).

«Hospital fees would induce patients to seek treatment in hospitals when cheaper treatment in lower level, non-paying facilities is unavailable or has proved to be ineffective. Unless hospital care is made substantially more expensive than primary care, patients would always want to use it (even for minor illnesses) because it is of higher quality. The consequence of treatment seeking behaviour induced by under-pricing of hospital services is overcrowding of hospitals by patients who can be successfully treated in lower level facilities. Overcrowding of health facilities is not conducive to efficiency and

effectiveness in service delivery. **Charging of modest user fees in hospitals, while maintaining free services in primary health facilities, would ease patients' congestion in referral facilities.** Such a fee structure is consistent with the principle of equity in health service delivery, since **patients who cannot afford to pay hospital fees can obtain treatment from free facilities.** Also, patients who cannot be cured by treatment provided in non-paying facilities can be referred for free or subsidized follow-up care in hospitals. However, patients would find free facilities attractive only if the services provided there are of good quality. **Efforts should therefore be made to use the fiscal resources released by user fees to improve quality of service in primary health facilities, and to finance preventive services.** Even though such resources in many countries would be small proportions of total budgets of ministries of health, they are likely to be substantial in relation to expenditures on primary health services. »
(Mwabu G, 1990: 5)

e) Unofficial Payments

Another potential strength of user fees is that official fees are expected to have a beneficial effect on access, leading to a reduction in unofficial fees (Haddad S & Fournier P, 1995; IDS, 2012; Khan S, 2005; Yisa IO et al., 2004). This situation is reported in three studies citing the Cambodia experience. According to Griffiths (2003), *«Despite significantly increased official user fees constituting 16% of recurrent costs, the utilization of services equally increased. Patients thought the fees were reasonable because they were still lower than the fees demanded if government health workers charged informally»* (Soeters R & Griffiths F, 2003: 74). Also James (2006) states that fees replaced irregular and often high informal fees in Cambodia and Bekedam (2004), explains how the formalizing unofficial payments within a comprehensive resource management system has the potential to increase utilization by protecting patients from the unpredictability of informal fees, in addition to reducing out-of-pocket expenditure (Barber S, Bonnet F, & Bekedam H, 2004; James C, 2006).

f) Efficiency

And thus one of the major pillars of the user fees rational is their potential to promote efficiency. Since user fees are said to increase revenue, quality, satisfaction and income redistribution, producing appropriate allocation incentives, while reducing excessive costs produced by moral hazard, and the use of hospital services with negligible benefits, they generate maximum gains at minimal costs. (Akin J et al., 1987; Gilson L, 1997; Gilson L et al., 1995; Grepin K, 2009; Haddad S & Fournier P, 1995; James C et al., 2006; Mwabu G, 1990; The World Bank, 1993).

5.2. Weaknesses

a) Revenue and Quality

Many authors state that in most Low and Middle Income Countries where user fees were introduced, fee revenue contribute only to a small share of total revenue and are insufficient to address quantity and quality improvements (Bennett S & Gilson L, 2000; Ensor T & Ronoh J, 2005; Gilson L, 1997; IDS, 2012; Mwabu G, 1990; Nanda P, 2002; Yates R, 2009). A study from Zaire shows that *«the regular supply of drugs and the improvement in the technical quality of the services, technical qualification of the staff, allocation of microscopes, and renovation of the infrastructures was not enough to compensate for the additional financial barriers created by the increased cost of services»* (Haddad S & Fournier P, 1995: 743).

Another study, from Tanzania also describes limited positive evidence that user fees in this country have overall achieved their original objectives of sustainability, drug availability, and quality of care (Laterveer L, Munga M, & Schwerzel P, 2004). *«Revenues raised from user fees at the hospital level have been lower than what has been projected»*, says Leontien Laterveer (2004) in the study “Do we retain the user fee or do we set the user f(r)ee?” (Laterveer L et al., 2004: v).

Why does this happen? For many authors user charges don't make a significant contribution to raising revenue because fees charged are very low (Bennett S & Gilson L, 2000; Gilson L, 1997; Mwabu G, 1990). User fees generate on average 5% of recurrent health expenditure (Gilson L, 1997). Revenue levels tend to be this low because they are proportional to low household income levels, limiting the scope to improve quality and quantity outcomes (Bennett S & Gilson L, 2000; Gilson L, 1997) and because there is little effort at the facility level to collect the fees charged (Mwabu G, 1990)

Also, many low and middle income settings do not observe improvements in revenue raised and quality because of poor design of fee systems; poor capacity of local financial management and fee system implementation; and weak supporting systems and other contextual constraints (Gilson L, 1997). What is more, the lack of financial management systems; of information; of knowledge to target the real poor, of supervision; of policy monitoring; high bureaucracy and hierarchy conduct to failures in retaining revenue. Furthermore, she adds *«weak accounting and management skills undermine implementation»* and *«the nature of quality improvements cannot be addressed simply by revenue generation»* (Gilson L, 1997: 277).

For The Coalition for Health and Education Rights fees often lower quality because they *«are usually designed to shift or reduce costs, rather than to improve outcomes at a given unit cost»* (The Coalition For Health and Education Rights, 2002: 8)

In addition, two studies report that some facilities do not spend all fee resources in the health sector (Laterveer L et al., 2004; Waddington C & Enyimayew K, 2006).

And finally, the world bank states: *«the introduction of user fees at levels that do not discourage the poor is likely to be more useful for improving technical efficiency than for raising substantial revenues on a nationwide basis»* (The World Bank, 1993)

b) Cost Recovery

One other factor limiting the potential of user fee revenue is the burden of administrative costs, which include human resources, issuing receipts, accounting, managing money, banking, etc. Administrative costs do not permit the use of total collected revenue, which tends to be low, reducing cost recovery levels (Gilson L, 1997; Kutzin J & Creese A, 1995; The World Bank and GAVI Alliance, 2010). The cost recovery potential of user fees is particularly restricted when revenue from user fees is not retained at the point of collection (Normand C & S., 2008) and most of the studies relate to small scale projects and do not take into account the high management costs associated with user fee systems.(Yates R, 2006)

c) Corruption

Several studies describe how under-resourced hospitals and poorly paid staff create space for corrupt practices, retaining revenue at the source and preventing quality improvements (Afsana K, 2004; Ensor T & San P, 1996; Gilson L, 1997; IDS, 2012; McPake B et al., 1999). Waddington (2006) found while analysing the impact of user charges in the Volta region of Ghana, that *«fee revenue can be dangerously attractive, particularly if it is administratively more accessible than general government allocations»* (Waddington C & Enyimayew K, 2006: 287). While exploring informal economic activities of public health workers in Uganda, McPake and colleagues also state that *«where formal charges are collected, high levels of leakage occur both at the point of collection and at higher levels of the system»* (McPake B et al., 1999: 849). The article "User fees in government health units in Uganda" also concludes:*«implementation of cost sharing has been problematic largely because of unclear policies and corruption in the health units»* (Konde-Lule J & Okello D, 1998: iv).

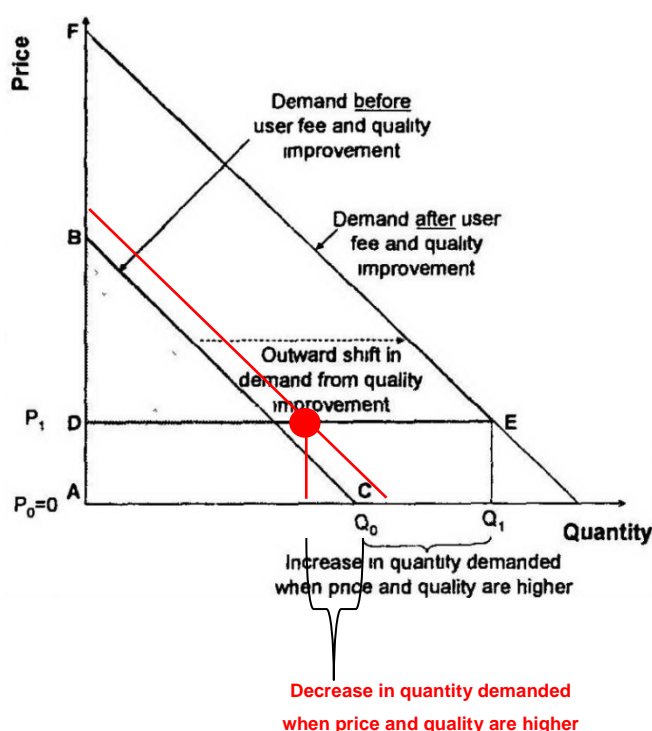
d) Demand

A study regarding user charges and quality of health services in Morocco demonstrates that an increase of more than 10% of out-of-pocket costs has a detrimental influence on the utilization rate, regardless of quality improvements (Hotchkiss D, Krasovec K, El-Idrissi D, Eckert E, & Karim A, 2003).

Another study, from Tanzania, also found that «fees have negatively impacted the use of health care by the rural poor population» (Laterveer L et al., 2004: vi). In his literature review James CD (2006) declares that «since 2000 studies show that fees reduce usage» and also Sara Bennett's review (2000) describes that «all cases and where fees were increased or introduced registered a decrease in service» (Bennett S & Gilson L, 2000: 9; James C et al., 2006: 137). Most of the articles analysed conclude that user fees reduce services utilization (Bennett S & Gilson L, 2000; Bennett S & Gilson L, 2001 ; Ching P, 1995; Ensor T & Ronoh J, 2005; Haddad S & Fournier P, 1995; Hotchkiss D et al., 2003; IDS, 2012; James C et al., 2006; Moses S et al., 1992; Yates R, 2009).

Figure 4: Adoption of user fees and minimal quality improvements

Source: (Britán R & Giedion U, 2002)



In Figure 4 we can see the effect of a quality improvement. While this may increase utilization (as described in Section X above) the increase in price caused by the introduction of the user fee may reduce utilization. This is shown in the diagram by

the red dot, which signals the level of consumption when quality improvements are small or do not impact consumers choice.

e) Equity

Equity is the most challenging weakness of user fees. Economic theory predicts that *«if the willingness to pay or if the financial liquidity of wealthier patients exceeds that of lower income patients and if the government charges the average willingness to pay for health services, mainly the wealthy will benefit and the poor may be unable to access health services»*(Grepin K, 2009: 4).

All the studies analysed refer to the potential of user fees to harm poor people and make a clear statement on how fees promote income and geographic inequalities (Bennett S & Gilson L, 2000; Dao H et al., 2008; Doorslaer E et al., 2006; Ensor T & San P, 1996; Falkingham J, 2004; Gilson L, 1997; Gilson L & McIntyre D, 2005; Hotchkiss D et al., 2003; James C et al., 2006; Laterveer L et al., 2004; Russel S, 1996; Sepehri A et al., 2005; Somkotra T & Lagrada L, 2008; Yates R, 2009). Price plays a significant role in the demand for health care of the poor, and the poor are very price sensitive responding to price increases proportionally more than rich people (Russel S, 1996). Also, since there are more poor people in rural Africa, these areas will be more impoverished than urban areas, thus user fees create geographic disparities (Gilson L, 1997). In Africa poverty is predominantly rural, with more than 70 (per cent) of the continent's poor people living in rural areas. Sub-Saharan Africa has more than 218 million people living in extreme poverty and in Eastern and Southern Africa most of the region's 130 million poor people live in rural areas (International Fund for Agricultural Development IFAD, 2012).

Rural households are less able to generate revenue from existing resources, and borrow almost double that of urban households (Khan S, 2005). Also for rural households, often reliant on subsistence farming, it is often very difficult to access cash at the time of need due to temporal or seasonal cash availability (Soucat A et al., 1997). This was reportedly a major constraint to paying for health care for between 40 and 50% of households in West Africa (Soucat A et al., 1997). For these people, fees are not affordable and the imposition of charges leads to one of three roads: either they restrain their use of health services, and *«the more serious the illness the less choice but to pay for treatment and make sacrifices elsewhere»*; either they avoid payment or they become more impoverished due to effects of high catastrophic health expenditure (Russel S, 1996: 225; Somkotra T & Lagrada L, 2008; Yates R, 2009). Faced with

health crises and without money to pay for care, households may delay, decrease or eventually stop health care consumption. This is done by reducing their attendance rate and length of stay, by cutting the level of treatment, by not completing treatment regime, shifting demand to other providers, treating only priority individuals or not seeking treatment at all (Ensor T & Ronoh J, 2005; Russel S, 1996).

Poor villagers who, despite difficulties mobilizing resources to pay for care, still try to protect consumption of necessary health, are forced to adopt defensive, and sometimes perverse, strategies such as: making claims on kin or on other households; withdrawal of a child from school or reduction food consumption; borrowing cash from money lenders or a bank; forgoing consumption of other essential commodities like food; foregoing investments in other essential areas; selling or pledging stores and assets (sell belongings, sell livestock, use savings, etc.); begging or asking for charity; or finding ways to delay payment (Falkingham J, 2004; Russel S, 1996; Smith B & Rawal P, 1992). Furthermore, poor villagers often have no assets or savings; no one wants to lend them money and when someone does, they ask for high interest rates; what is more, they are susceptible to the unpredictable and seasonal nature of income; they usually have a large number of dependents; and are more vulnerable to illness (Afsana K, 2004; Gilson L, 1997; Russel S, 1996; The Coalition For Health and Education Rights, 2002).

All coping strategies have high opportunity costs and Russel (1996) raised several questions in this regard: how can all households rely on support networks under strain to borrow money? What is the impact of debt repayments? What are the nutritional consequences of foregoing essential food consumption? What are the immediate consequences for their illness? How does their choice not to invest in preventive health, education, business, and farming inputs affect future earning capacity, health endangered and future crop yields? Does the sale of productive assets and stores cause loss of livelihood and future vulnerability? What is the impact of a delay, reduction or break in treatment? Are there more complications, greater costs in the long run, ineffective treatment, increases in preventable mortality and morbidity? Health service charges on households' limited budgets impact their expenditure priorities, their consumption and expenditure patterns (Russel S, 1996).

The following table (Table 4), adapted from the work of (Russel S, 1996) Russel (1996), provides taxonomy for consumers' behaviours, strategies, responses and opportunity costs when faced with health care costs beyond routine budgets. Russel suggests that, in order to protect consumption against necessary health care, some of the strategies used include making claims, begging, forego other consumption, borrow

cash, avoid payment, reduce attendance or not seeking treatment at all. Some of the consequences of this may include, higher resistance to drugs, reductions in length of stay more complications, nutritional deficiencies, increases in preventable morbidity and mortality, social stigma, impoverishment and/or greater vulnerability in future.

Table 4: No cash to pay for care: a typology of strategies, responses and coping strategies

Consumption behaviour	Strategy	Response	Opportunity costs in short and longer term
Protect consumption of necessary health care	Continue to spend cash on health care	Make claims other households	Support networks under strain - can they be relied upon?
		Begging or charity	Social stigma?
		Delay payment	Compromising the future?
		Forego consumption of essential commodities	Nutritional deficiencies? More prone to illness?
		Forego investment in other essential areas	Future health endangered? Future earning capacity reduced? Future crop yields reduced?
		Sell cash crops	Loss of livelihood? Impoverishment?
		Borrow cash from money lender or bank	Debt repayments-impact of repayments on future consumption and investment? Impoverishment?
		Use or sell stores and assets	Fewer buffers and greater vulnerability in future?
	Receive health care without spending cash	Avoid payment	Social stigma?
		Seek exemption	
Modify health care consumption	Delay or reduce consumption	Delay consumption	More complications? Greater cost in long run? Risky reductions in length of stay? Greater resistance to drugs? Ineffective treatment regime?
		Reduce attendance rate, length of stay	
		Cut level of treatment	
		Do not complete treatment regime	
	Diversify consumption or reduce consumers	Shift demand to other providers	Whose care is sacrificed? What implications?
		Only treat priority individuals	
	Stop consumption	Do not seek treatment	Increases in preventable morbidity and mortality?

Source: (Russel S, 1996)

Another article concerning out-of-pocket payments in Tajikistan, notes official payments deter people from seeking medical assistance and from receiving the most appropriate treatment (Falkingham J, 2004). Afsana (2004) also describes how cost increases increase the fear of seeking hospital care in Bangladesh. Gilson (2005) in his fundamental study of fee removal in Africa elucidates how charges can encourage inappropriate self-treatment and use of partial drug doses or may act as a barrier to early use, or perhaps any use, of health facilities. Another study, about formal and informal user fees in Egypt, India, Kenya, Peru, and Vietnam describes how in view of limited resources women sometimes cut down or did not want to take the prescribed medicines (Sharma S et al., 2005). Also the work of Moses (1992) explains how the

introduction of user fees increased the number of untreated patients in the population with potential long-term complications in Kenya (Moses S et al., 1992).

f) Exemptions

User fee waivers or exemptions are the main mechanisms adapted for protecting the poor from the financial burden of health care tariffs (Leighton C, 1995), however it does not seem to work. Apparently, little attention has been paid to their design and implementation; they cause an adverse effect on quality; generate low protection to the poor; are not functional in practice, generally misused, rare and inefficient (Bennett S & Gilson L, 2001 ; Borghi J, 2008; Ensor T & Ronoh J, 2005; Gilson L, 1997; Grepin K, 2009; Ridde V & F., 2010; Sharma S et al., 2005). For Ensor & Ronoh (2005), *«much of the argument against user charges rests on the observation that user charges are rarely implemented in a way that ensures revenue is retained by local facilities and exempts those not able to pay»* (Ensor T & Ronoh J, 2005: 51). To Bitrán (2002) *«The problem with user fees is that the lack of provisions to confer partial or full waivers to the poor often results in inequity in access to medical care»* (Britán R & Giedion U, 2002: iv). Furthermore, policies that exempt certain patients (e.g. those who are indigent) from paying are very difficult to achieve unless the exemption criteria are clear and applied correctly (Richard F et al., 2011).

In Burkina Faso, those who were eligible to receive such protection were often prevented from accessing it due to administrative and other practical difficulties associated with the policy's implementation (Storeng K et al., 2008). Exemptions represent additional administration costs. For instance in Zimbabwe, the administration of health user fees cost 400% more for each dollar raised than through the tax system (The Coalition For Health and Education Rights, 2002).

Studies also refer to how those with influence benefit over those in real need (Ensor T & Ronoh J, 2005; Gilson L, 1997). In Vietnam there is evidence that exemptions are repeatedly distributed to fellow workers and administrators rather than among the poor (Ensor T & San P, 1996). Leighton (1995) describes how the corrupt health staff, the poor working of administrative mechanisms, and difficulties in identifying the poor affect efficacy of user fees (Leighton C, 1995) lack of awareness among the majority of potential beneficiaries; lack of publicity; unwillingness of health staff to inform their clients are another problems limiting exemption mechanism says Sharma (2005) (Sharma S et al., 2005).

Additionally, Gilson (2005) points how informational, administrative, resource and social and political constraints undermine the development of effective targeting

mechanisms (Gilson L & McIntyre D, 2005). Reimbursement delays, recapitalization of the IHCs, administrative documents are also barriers identified in a study in Niger (Ridde V, Diarra A, & Moha M, 2011).

Finally, problems with spending and sustaining the funding, budgeting and management, are also reasons why exemptions do not attain their potential in Ghana (Witter S, Kojo Arhinfulb D, Kusic A, & Zakariah-Akotod S, 2007). The study from Rawal (1992) shows too how inadequate supplies of drugs and food at hospitals lead patients to incur substantial costs using the “free” services. Despite exemptions many households have to pay informal fees and other costs are not alleviated (Sharma S et al., 2005). In addition, access to quality care and medicine free of charge does not ensure that people seek “proper” treatment, especially when elements like time, confidence and someone to mind the other children are lacking. Also Rawal (1992), Kowalewski (2002), Nanda (2002), Allegria (2011), Pearson (2011) and Khan (2005), mention how travel costs, medicine, tests, food, tips and length of stay limit access to hospital despite the exemptions and waivers.

Another dimension of exemptions is that they potentially contribute to social stigma (as no one likes to be labelled as poor) and the inferior quality of care that patients fear to receive once they are identified as unable to pay (Borghi J, 2008; Khan S, 2005). Evidence shows that because exemptions decrease revenue, they go hand-in-hand with decreases in quality outcomes.

g) Efficiency

Given their high administrative costs, inefficient exemptions, the tendency to create inequities, and structural factors that limit the policy implementation, in general, user fees are not able to maximize revenue and quality health care, nor minimize the cost of providing health care (Gilson L, 1997; IDS, 2012; Nanda P, 2002; Yates R, 2009). In fact, user fees may even worsen efficiency because they do not save unnecessary utilization, they generate inappropriate utilization, and encourage providers to provide more care than necessary by referring patients to their own channels of medication trading and over prescribing (Gilson L, 1997; IDS, 2012).

6. User fees in maternal health

a) Low demand

One of the biggest concerns regarding the practice of user charges in maternal health is how they impact demand, which is already inappropriately low (Ensor T & Ronoh J, 2005). Several studies demonstrate how maternal health is extremely sensitive to imposed user fees, which is reflected in outcome mortality. A study in Kenya mentions how the adjusted total mean monthly attendance by women during the user-charge period was reduced significantly to 65% (55-77) of the pre-user-charge level (Moses S et al., 1992). In another Kenyan study attendance at government fee-charging health facilities for both outpatient and inpatient care was lower during the period when full fees were charged than during the same months of the previous year, when fees were not charged, and outpatient attendances rose again when the registration fees were lifted (Mbugua J, Bloom G, & Segall M, 1995). A Nigerian study shows also how mothers could not afford to pay for prenatal care and delivery in the hospital and how the fees decreased the purchasing power of women and their utilization levels, increasing the perinatal mortality rate by 38.7% (Mbugua J et al., 1995).

Evaluations of delivery care rates before and after the introduction of user fees documented in most cases a reduction in the number of facility-based deliveries (Mbugua J et al., 1995; Owa J, Osinaike A, & Makinde O, 1995; Taylor C, Sanders D, Bassett M, & Goings S, 1993). In Nigeria, deliveries fell by 46-50% following the introduction of fees in one hospital (1983-1988) (Owa et al. 1992; Owa et al. 1995). A 12% reduction in maternity admissions was noted in Kenya (fees were withdrawn a year after their introduction) (Mbugua & Segall 1995), and in Harare, Zimbabwe, deliveries in a health centre fell by 19% between 1981 and 1988 following the introduction of fees (Taylor et al. 1993).

b) Vulnerability of rural poor pregnant women and high costs

Pregnancy is a particular moment of vulnerability for poor rural women and the cost of childbirth is largely determined by the place of delivery and the type of delivery and extent of complications. From the analysed studies that relate to women's health when user fees are charged, the excessive costs of maternal health care seem to play a major role in the low demand for services during pregnancy, partum and post-partum periods (Afsana K, 2004; Borghi et al., 2006; Khan S, 2005; Kowalewski M, Mujinja P, & A., 2002; Mohanty S & Srivastava A, 2012; Nahar S & Costello A, 1998; Pearson L,

Gandhi M, Admasu K, & E, 2011; Perkins M et al., 2009; Sharma S et al., 2005; Storeng K et al., 2008; Storeng K, Murray S, Akoum M, Ouattara F, & Filippi V, 2010). «It is very difficult to prepare for the costs of obstetric care because the outcome of pregnancy is difficult to foresee and because the costs of care vary widely between facilities, are not predictable and include a range of indirect costs» (Storeng K et al., 2008)554.

c) Emergency Obstetric Care

«Delivery is the single most costly event during pregnancy» (Borghi et al., 2006) 1458.

The economic burden of emergency obstetric care has contributed to severe and long-lasting consequences for women and their households and is not just focussed on the intrapartum period, as it may last for some time after the delivery, particularly in the cases of obstetric emergencies or near-miss events (Sophie Witter, 2008; Storeng K et al., 2008).

According to Poletti (2004), who studies cost-recovery in health emergencies, *«many people working in humanitarian relief have an instinctive resistance to the introduction of user fees in complex emergencies. It runs counter to the ethos and principles of humanitarianism, under which assistance should be rendered to people affected by conflict on the basis of need alone* (Poletti T, 2004). ***«To many, it seems absurd that people who are struggling to survive in difficult and unstable circumstances should have another financial burden placed on them. The potential for catastrophic health expenditure is self-evident in complex emergency settings, where people's asset base is typically extremely vulnerable and their health needs are grossly elevated»*** (Poletti T, 2004). To this expert *«cost-sharing should not be introduced in complex emergency settings»*.

d) Rural poor women

Studies show that maternal health care is too expensive for rural households and produces geographical disparities (Afsana K, 2004; Khan S, 2005; Mohanty S & Srivastava A, 2012; Nahar S & Costello A, 1998). Rural women have more difficulty in paying than urban patients(Khan S, 2005), thus *«increases in out-of-pocket costs for public facilities would be expected to have very little impact on women living in better-off households, but would have a substantial and detrimental effect on the poor»*(Hotchkiss D et al., 2003: 2) In a Bangladesh study half of patients (rural women) had to borrow money to pay for care, and one third of these families reports selling

jewellery, land or household items to moneylenders (Khan S, 2005). Another study from Bangladesh reports that twenty-one per cent of families were spending 51-100 % of monthly income and 27 % of families 2-8 times their monthly income for maternity care (Nahar S & Costello A, 1998). It also showed that 51 % of the families (and 74 % of those having a caesarean delivery) did not have enough money to pay; of these, 79 % had to borrow from a money lender or relative (Nahar S & Costello A, 1998).

It is generally difficult for a women to mobilise resources for their own health care needs, and with little cash and often lack of control over their own money, with limited options for seeking care, and living further away from health facilities many women are forced to make trade-offs in not seeking health care in order to purchase food or fuel, or they may seek traditional health care that does not address their needs appropriately (Borghi et al., 2006; Ensor T & Ronoh J, 2005; Nanda P, 2002). *«Collecting the required money was difficult for poor villagers, who usually had no assets or savings. No one wanted to loan them money either. Some families borrowed money from moneylenders at very high interest rates, which tripled within six months. Some raised money by selling domestic birds, cattle or land or even a tin shed roof.»* (Afsana K, 2004: 177).

e) Complications

The case is even more concerning when complications occur during delivery. When complications occur reproductive health can be even more costly and plunge a household into poverty or force it to rely on risky coping strategies (Ensor & Ronoh 2005). *«If mother or child suffers complications, costs can skyrocket»* (Richard F, Witter S, & Brouwere V, 2010: 1845). According to data from the 2008 study from Borghi and Colleagues, the cost of normal deliveries in a hospital may range from a low of \$3.86 in Tanzania to \$47.28, while the cost of complicated deliveries ranged from \$7.35 in Tanzania to \$355.20 in Bangladesh, with drug costs the most significant expenditure item, representing on average 43% of the total treatment cost (See Tables 5 and 6 in appendix) (Borghi J, 2008). In data from 2006 complicated deliveries were calculated to cost households between three and ten times more than normal deliveries, and the cost of complicated deliveries is often catastrophic, defined as being in excess of 10% of yearly household income (Borghi et al., 2006). A study from this year states that predicted expenditure for a caesarean delivery is six times higher than for a normal delivery (Mohanty S & Srivastava A, 2012). In another recent study from Ethiopia we may see how out of pocket costs for caesarean section were catastrophic for Low and mid income households and how treatment of neonatal complications also created a big financial burden (Pearson L et al., 2011).

f) Exemptions, corruption and sustainability

The experience of exemptions in maternal health among Sub-Saharan countries care varies across settings:

The existence of exemptions in Tanzania minimized the cost differential between normal and complicated deliveries and protected households from uncertainty in terms of resource requirements (Borghi J, 2008). Ghana introduced a delivery fee exemption policy in late 2003 which was apparently effective at increasing the proportion of births supervised by trained medical personnel and the proportion of births delivered in facilities, increasing the level of professionalization and institutionalization of deliveries (Grepin K, 2009). However evidence shows that it resulted in adverse effects on the quality of services delivered and became non-functional after 2 years due to lack resources; problems with disbursing and sustaining the funding; problems with budgeting and management; and lack of political will to make this policy sustainable in the long run. (Grepin K, 2009; Witter S et al., 2007). Burkina Faso introduced a cost-sharing system shared between 4 parties: the households, the management committees of health centres, the local authorities, and the Ministry of Health. It provided all care for the mother and her newborn (transport, intervention, and post-delivery care) for emergency or life-threatening cases and one of the major challenges was providing emergency obstetric care at all times and guaranteeing the package of services promised for the fee throughout the year (Richard F et al., 2010). In the study by Sharma (2005), in Egypt, India, Kenya, Peru, and Vietnam, many problems occurred with the awareness of the waiver/exemption mechanisms with the women of the five countries. They simply did not know about the existence of exemptions, or what they could do to have access to the policy (Sharma S et al., 2005). In Niger, a 2011 study testifies how women experienced significant delays in the reimbursement of treatments provided free of charge in the health centres (Ridde V et al., 2011). Demand for informal fees and corruption of the exemption mechanism is also present in maternal care, obstructing the access of poor and badly informed women in rural Africa (Afsana K, 2004; Borghi et al., 2006; Sharma S et al., 2005).

g) Quality and revenue

User fees have also been introduced in the context of maternal health to address the issue of revenue/quality versus equality. According to a study on the role of user charges and structural attributes of quality on the use of maternal health services the

gains in quality among wealthier households from out-of-pocket costs of using public facilities were to be doubled. Yet, still according to the report, among poor women, the net effect of any strategy that involved increases of more than 10% in out-of-pocket costs, would have a detrimental influence on utilization rates, regardless of quality improvements (Hotchkiss D et al., 2003). Another study from Uganda, shows that user fees are relatively high for MCH services; increased local revenue has failed to materialize because people are reluctant or unable to pay user fees, and revenue raised goes to the district level for reallocation elsewhere (Mwesigye F, 1999). According to this study, in reality local facilities still have little decision-making and implementation authority because their need for health care financing forces them to turn to international donors and vertical programs. In other words, the potential for improving quality due to revenue increases from user fees is limited, as user fees are a small portion of financing.

7. Recommendations for user fees and implementation of exemption

7.1. User Fees

Direct recommendations to improve the implementation of user fees include the introduction of a by-pass fee in areas where the primary care network is adequate and referred patients are exempted at higher levels of the system; the imposition of substantial inpatient fees combined with good insurance and good exemptions; the imposition of affordable fee levels (per day fee + maximum levels); improvement of collection procedures; use of a simple fee structure linked to the treatment received; periodic readjustment of prices; association of fees with quality improvements which promote the utilization of the primary level ; use of revenue retained at the point of collection for quality improvements; creation of guidelines/procedures to promote revenue use for perceived quality improvements; coordination of price structures across health systems levels; development of management-oriented information systems which allow monitoring by providing data on e.g. revenue collected, revenue use patterns; development of skills and systems to enable decentralization of resources; and utilization of effective audit procedures to ensure accountability of local level; and creation of price advertises within health facilities (Gilson L, 1997)

Indirect recommendations for user fee improvement include the improvement of consumers' willingness and ability to pay ; development of a resource reallocation mechanism favouring relatively under-resourced geographical areas and more cost-effective services; improvement of professional ethics to counterbalance health workers' responsiveness to financial incentives; development of community management mechanisms at a primary level and promotion of community solidarity mechanism which can assist the poor and ensures accountability to community; implementation of an effective reward and discipline system for health staff, including training; development of effective management and clinical supervision and support for local level (district or community); maintenance of existing levels of government funding for the health system as a whole; development of complementary risk-sharing financing mechanisms; development of a supportive legal framework for fee/sustainability policies; development of institutional capacity within the health system to provide support to local level decision makers; provision of adequate leadership and advocacy skills within the health sector to develop political support for appropriate design and policy; and promotion of wider institutional support (e.g. banking facilities; communication facilities) (Gilson L, 1997) (See Table 7).

Table 7: Recommendations for user fees

Issues addressed	User fees
Source	(Gilson L, 1997)
Design	Introduce a by-pass fee in areas where the primary care network is adequate and referred patients are exempted at higher levels of system Impose substantial inpatient fees combined with good insurance and good exemptions Impose substantial fees for 'private wards', selected only by those willing to pay Impose affordable fee levels (per day fee + maximum levels) Improve collection procedures Use a simple fee structure linked to the treatment received Periodic readjustment of prices
Target the Poor/Equity	Improve consumers' willingness and ability to pay Develop a resource reallocation mechanism favouring relatively under-resourced geographical areas and more cost-effective services
Corruption	Improve professional ethics to counterbalance health workers' responsiveness to financial incentives
Quality	Associate fees with quality improvements which promote the utilization of the primary level Some revenue retained at the point of collection for use in quality improvements Guidelines/procedures to promote revenue use for perceived quality improvements
Coordination among levels of the health system/ Referral	Coordinate the price structure across health systems levels (e.g. use sliding fees according to level of system)
Community	Develop community management mechanisms at a primary level Promotion of community solidarity mechanisms which can assist the poor Promote a community management mechanism which ensure accountability to community
Staff	Implement an effective reward and discipline system for health staff, including training
Drugs	Develop an effective drug procurement and supply system
Management	Effective management and clinical supervision and support for local level (district or community) Management-oriented information systems which allow monitoring by providing data on e.g. revenue collected, revenue use patterns Develop skills and systems to enable decentralization of resources use, control and management within wider system to appropriate level Effective audit procedures to ensure accountability of local level
Information/ Communication	Ensure the price structure is advertised within health facilities
Funding	Maintain existing levels of government funding for health system as a whole
Policy Making/ Policy Framework	Develop complementary risk-sharing financing mechanisms Develop a supportive legal framework for fee/sustainability policies
Other contextual support	Develop institutional capacity within health system to provide support to local level decision makers Adequate leadership and advocacy skills within the health sector to develop political support for appropriate design and policy Promote wider institutional support (e.g banking facilities; communication facilities)

7.2. Exemptions

Recommendations for improving exemptions and waiver systems are: utilization of simple-to-apply exemption categories; the prevention of establishment of incentives not to exempt; limitation of the amount of revenue that can be retained locally from fees; identification of specific and different sources of funding for the exemptions; attribution of equal weight to the goal of exemption and to revenue generation in implementation guidance; elaboration of clear central guidelines on eligibility criteria so that they distinguish between the poor and the non-poor and so that they are

reasonably feasible to implement at local level; introduction of exemption mechanisms before introduction of charges; the avoidance of exemption capture by non-poor groups such as civil servants; encouragement of exemption screening to take place close to the household in the community; monitoring of performance; and guarantee of exemption system is given high priority by politicians and bureaucrats alike (Bennett S & Gilson L, 2000; Gilson L, 1997) (See Table 8).

Table 8: Recommendations for Exemptions and Waiver

Issues addressed	Exemptions and Waiver
Source	(Bennett S & Gilson L, 2000; Gilson L, 1997)
Design	Use simple-to-apply exemption categories (e.g. focusing on characteristics of users, or including some simple procedures to identifying poorest) Avoid establishment of incentives not to exempt Limit the amount of revenue that can be retained locally from fees; Identify specific and different sources of funding for the exemptions Give equal weight to the goal of exemption and to revenue generation in implementation guidance Exemption mechanisms should be in place before introducing charges
Target the Poor/Equity	Provide clear central guidelines on eligibility criteria so that they distinguish between the poor and the non-poor
Corruption	Avoid the capture of exemptions by non-poor groups such as civil servants
Community	Enable exemption mechanisms to be adapted in response to local circumstances, but only within limits set by clear central guidance. Provide clear central guidelines on eligibility criteria so that they are reasonably feasible to implement at the local level; Encourage exemption screening to take place close to the household in the community or local health care facility through mechanisms that involve both community members and health workers and by individuals trained for the task. Recognise that allowing some degree of capture by more wealthy groups, particularly within local communities, may build sustained support for the exemption mechanism.
Management	Monitor performance against guidelines: how many exemptions are given, to whom, by whom?
Information/Communication	Communicate the exemptions policy to health workers and the general population
Policy Framework	Ensure that the exemption system is given high priority by politicians and bureaucrats alike

8. Abolition of user fees

8.1. Strengths of user fee abolition

At the launch of the “UK Department for International Development’s new health strategy”, in 2007 the Director-General of the World Health Organization, stated the following:

«Global poverty is a devastating injustice. Health development is the most effective way to tackle this injustice. Good health can indeed become a pathway to a fairer world. (...) If you want to reduce poverty, it makes sense to help governments abolish user fees. » Dr Margaret Chan. (Chan M, 2007)

Targeted abolition of user fees in Africa started in early 2000, with the race to reach the Millennium Development Goals by 2015, starting with abolition of fees for treatment of specific diseases and for pregnant women and children under five (Richard F et al., 2011). The abolition of user fees is estimated to prevent around 233 000 (between 153 000-305 000) deaths in 20 African Countries (James C et al., 2005) and is considered as an alternative to increase equality and efficiency in the health systems (Borghi et al., 2006; De Allegria M et al., 2011; James C et al., 2005; Laterveer L et al., 2004; Masiye F, Chitah B, & McIntyre D, 2010; Ridde V & F., 2010; Xu K et al., 2005).

The removal of user fees increases health care demand, especially due to increases in services used by poor people (Borghi et al., 2006; The Coalition For Health and Education Rights, 2002). Valéry Ridde in her scoping review on the abolition of user fees in health care services in Africa (2010), where more than 20 studies were selected and analysed, states that *«all the studies report increases in the visits after abolition»* and concludes the removal of user fee produces both increases in curative visits in primary care and hospital deliveries (Ridde V & F., 2010: 6). Mylene Lagarde reviewed the impact of user fees on health service utilization in low- and middle-income countries (2008), using five longitudinal data studies, and confirms an abrupt increase in the utilization of curative services immediately following fee removal (Lagarde M & Palmer N, 2008).

South Africa: as a means to improve access to health services and build national unity, the ANC Government in South Africa, removed user fees in 1994 for all children under six and pregnant and lactating women. The result was a large increase in the use of curative services, with outpatient attendances increasing by 77% (Yates R, 2006). «Fee removal for maternal health services has been effective in increasing the mean number of booked deliveries by 4.6% in South Africa. » (Borghi et al., 2006: 1459)

Uganda: in Uganda user fee were scrapped in 2001 in all Government health facilities (with the exception of private wings in larger hospitals) and were followed by a huge flow in demand for free health services. Outpatient attendances increased by 155% (an extra 14.9 million visits) in the two years following the abolition of user fees at Government health units, and utilisation of rural health centres increased by 77% (Yates R, 2006). Among the poor, utilization of public facilities also increased substantially after the abolition of fees (Xu K et al., 2005).

Zambia: In Zambia fees were removed for all public health services in rural areas on April 1st 2006, and on average, utilisation in public health facilities across all rural districts among the population aged five years or older increased by 55% over the

twelve months following the removal of user fees. Evidence shows that utilisation increases were greatest in the districts with the highest levels of poverty and material deprivation (Masiye F et al., 2010)

Madagascar : Once services became free, there was a significant increase in the consumption of services to the extent that “monthly visits post-crisis almost doubled compared to the previous year” (Fafchamps and Minten, p11) (Yates R, 2006).

Rwanda: Immediately after co-payments were eliminated in February 2007, patient visits levelled at a rate triple the previous value (Dhillon R, Bonds M, Fraden M, Ndahiro D, & Ruxin J, 2012).

Niger: In 2006, an NGO intervened to abolish user fees in two Nigerian health districts and 43 health districts for children under five years and pregnant women. «Abolition brought relief to poor families. People no longer hesitated to come: “Free services are a good thing, because not everyone has what they need to bring a sick child to the IHC [integrated health centres]” (IHC manager/Abalak). Healthcare workers noted that utilization increased in both districts, but also that children were brought earlier than before: “Now women don’t hesitate to come, since it’s free” (IHC manager/Keita)» (Ridde V & Diarra A, 2009: 221)

Apparently the abolition of user fees, making services affordable to all, reduces delay from seeking cash and protects against indebtedness from care seeking, generating revenue in a more equitable way and avoiding administration costs and other inconveniences of exemptions mechanism (Borghi et al., 2006). Furthermore, studies show that at the same time the abolition of user fee avoids stigmatization, reducing exclusion and self-exclusion among the poor and vulnerable, and can be considered as a pro-poor option contributing to gaining political support (Laterveer L et al., 2004; Meessen B, Van Damme W, Tashobya C, & Tibouti A, 2006).

8.2. Weaknesses of user fee abolition

a) Quality

The effect on quality of the abolition of fees is not the same everywhere. Some studies show that there has been no deterioration of indicators on perceived quality (Masiye F et al., 2010), while other works describe declines in the quality of services, due to decreases in health systems’ revenues (Ridde V & F., 2010; The Coalition For Health and Education Rights, 2002). The majority of studies regarding abolition of user fees report limited capacity of health structures to deal with additional demand, causing

health staff workload increase, low availability of drugs and lack of medical supplies following the abolition of user fees (Borghi et al., 2006; Meessen B et al., 2006; Ridde V & F., 2010; Yates R, 2006). Ridde (2010) writes:

«All the countries experienced problems of drug availability. In South Africa the distribution received little planning effort (Walker and Gilson 2004) and in Madagascar it was late and poorly organized (Fafchamps and Minten 2007). Those involved in the Ghanaian health system consider that increased funding for drugs at the start of the exercise helped improve the quality of services, but this situation did not last (Witter and Adjei 2007; Witter et al. 2007b). Uganda seems to have fared better. While stock shortages were more frequent in the year following abolition, the situation improved thereafter (Burnham et al. 2004; Deininger and Mpuga 2004; Kajula et al. 2004; Nabyonga et al. 2005; Nabyonga-Orem et al. 2008). In South Africa, higher numbers of visits meant lower quality: less time for each patient, lack of privacy (Walker and Gilson 2004). Ugandan studies draw contradictory conclusions, with some reporting deteriorating cleanliness of facilities (Burnham et al. 2004), long waiting times and unfriendly staff (Kajula et al. 2004), while others report no change in cleanliness or workers' attitudes (Nabyonga et al. 2005; Nabyonga-Orem et al. 2008)» (Ridde V & F., 2010: 7).

b) Lack of Revenue and need for funding

Although the gains generated by user fees (revenue that would have been lost due to illness) may balance the revenue losses (Deininger K & P, 2005)¹, many studies illustrate, that the abolition of fees needs to be combined with considerable effort to increase levels of funding (internally and externally) and with improvements in the allocation and disbursement of funds. This is necessary to avoid the risk of shortages of drugs and medical supplies because eliminating fees reduces the overall revenue, especially at the service delivery level where most fees are collected and retained (James C, 2006; Laterveer L et al., 2004; Ridde V & F., 2010; The Coalition For Health

¹ In Uganda the loss of revenues to the health system «was estimated to be US\$3.4 million annually, and was compensated by economic gains generated through fees abolition— an estimated US\$9 million annually in revenues that, without abolition, would have been lost due to illness» (Deininger K & P, 2005: 85)

and Education Rights, 2002 ; Yates R, 2009). ² This is even more compelling in the case of reproductive health: «*The available evidence makes a strong case for removal of user fees and provision of universal coverage for pregnant women, especially for delivery care. To be successful, governments must also make the substantial commitment to replenish the income lost through the abolition of user fees.*» (Borghi et al., 2006: 1463)

c) Informal Charges

One of the main constraints on removal of user fees is the risk of informal charges, like bribes and non-transparent payments (Borghi et al., 2006; Meessen B et al., 2006; The Coalition For Health and Education Rights, 2002).

d) Other costs

Findings indicate that the reduction of user fees alone is not sufficient to ensure that all women benefit from skilled attendance at birth. Distance constitutes a major barrier to access, accompanied by the costs of emergency and non-emergency transport and the costs of time (since illness prevents people from working and receiving income and there is no supplementary funding for the loss of revenue) (Borghi et al., 2006; De Allegria M et al., 2011; Masiye F et al., 2010; Nahar S & Costello A, 1998; Storeng K et al., 2008). These other costs remain significant barriers even after the reduction or removal of user fees.

e) Implementation

Abolition of fees is said to be initiated too quickly, due to international pressure, as conditionality for accessing funds or loans (Richard F et al., 2011). «*Abolition of user fees for deliveries and caesarean sections, though presented as a quick impact intervention, is actually a very complicated strategy to implement. Success is dependent on good prior estimates of financial and other resources needed, taking into account an increase in the patient load, a willingness to enforce the policy by frontline staff, and to ensure good implementation*» (Richard F et al., 2011: 47). According to Ridde's (2010) review there is a scarcity of data in the literature on the processes of abolishing user fees in Africa and their different effects (Ridde V & F., 2010).

² Revenue from user fees can be a substantial proportion of health facility budgets (for example, 38% in Nepal, 39 35% in Burkina Faso, 26% in Ghana, and 14% in Indonesia⁴⁰) government funding needs to increase (Yates R, 2009)

f) Lack of information

Lack of information about the abolition of fees is also a problem: «after more than two years, information in Abalak was unevenly received “They don’t know it’s free. Where they are, radio doesn’t reach, or they don’t listen”» (Ridde V et al., 2011: 222).

g) Referral

Evidence shows that after abolition of fees the respect of households for the referral system may decline (Meessen B et al., 2006).

9. Recommendations on fee abolition

The major recommendations for improving elimination of fees are: directing patients to the most efficient care provider; increasing funding to reduce the risk of an increase in informal charges, ensuring sufficient staff, to avoid the risk of shortages of drugs and medical supplies; and good prior estimates of financial and other resources needed (Borghi et al., 2006; Richard F et al., 2011) (See Table 8).

Table 8: Recommendations for the abolition of user fees

Issues Addressed	Fee Removal
Source	(Borghi et al., 2006; Richard F et al., 2011)
Design	Directing patients to the most efficient care provider can help mitigate against such events /invest in staff salaries and drugs and medical supplies
Corruption	Increase funding to reduce the risk of an increase in informal charges/ need for lost resources to be replaced by additional government revenue (If there is a widespread system of informal payments this will need to be addressed prior to introducing a social health insurance scheme)
Staff	Introduce appropriate financial incentives to ensuring sufficient staff
Drugs	Increase government funding to avoid the risk of shortages of drugs and medical supplies
Management	Introduce appropriate financial incentives to ensure infrastructural capacity to manage increased demand,
Funding	Increase government funding
Policy Framework	Good prior estimates of financial and other resources needed, taking into account an increase in the patient load, a willingness to enforce the policy by frontline staff, and to ensure good implementation

10. Other mechanisms of financing maternal health care

«Most countries have at least three mechanisms for financing maternal health services. Usually, there is a principal financing mechanism, such as tax revenue, or social health insurance, combined with user charges (both formal and informal), together with supplementary community financing for specific services and components of the health system. In most low-income countries, the funding for maternal health care is shared between government (through tax revenue) and households» (Borghi et al., 2006: 2). User fees are just one among many options for financing health systems and there remains a lack of evidence on the best methods of targeting resources (Ensor T & Ronoh J, 2005). This section discusses other mechanisms that are alternatives to user fees in financing health systems.

I. Universal Coverage

Universal coverage is a method of taxation and risk sharing which channels funds raised from general government taxation of the population, to public providers such as hospitals, health centres, and public health programs to pay for staff salaries, medicines and other consumables and then services are free or available at a low price at the point of contact for patients (Normand C & S., 2008).

The purpose of universal coverage in the health sector is to correct market failures when a public good, merit good, or good/service producing externalities is at stake or when there is a need to improve universal access and equity, which is the case of maternal care (Prata N, Greig F, Walsh J, & West A, 2004). Universal Coverage (UC) policy implementation is a valuable social protection and safety net strategy that contributes to the prevention of financial catastrophe and impoverishment due to out-of-pocket payments for health care. The UC policy in Thailand achieves one of the goals of improving the health system through equitable health care financing by reducing financial catastrophe and impoverishment due to out-of-pocket payments for health care (Somkotra T & Lagrada L, 2008).

Challenges: unaffordability and difficulty for policy makers to raise sufficient funds to pay for the necessary services without excluding people who are poor and vulnerable are the main challenges (Ensor T & Ronoh J, 2005; Yates R, 2009). Also Gilson (2010) points out that *«service delivery is often inequitable, biased towards urban areas and hospitals rather than the rural poor; reliance on indirect taxation raises*

questions of equity; limited tax base provides low level of funding» (Bennett S & Gilson L, 2001)

Recommendations: it is urgent to find ways of identifying the poor, ways of extending benefits to the poor and demand-side financing (Ranson K, Law T, & Bennett S, 2010).

II. Health insurance in general

Insurance is a scheme where households make a fixed prepayment in return for minimisation or avoidance of uncertain (but potentially catastrophic payment for services at the time of need) and where households may pay when they can, reducing thus uncertainty and encouraging referrals (Jo Borghi et al., 2006).

The rationale behind insurance is that it increases the demand for care, offsetting market power, alleviating some externalities, and mitigating problems associated with misinformation that results in many types of care being underutilized (Frick K & Chernew M, 2008). Yet the higher the demand, the higher the financial transfers to providers, and the risk of creating distributional issues through moral hazard (Frick K & Chernew M, 2008).

Challenges: Criticisms of general health insurance systems are that:

1. Insurance schemes have limited financial sustainability (Borghi et al., 2006). Monasch (1998) identifies a study carried out by the London School of Hygiene and Tropical Medicine (LSHTM) in collaboration with the World Health Organisation (WHO) exploring the range of health insurance schemes available to poor people where it is said that «in terms of finance, none of the schemes examined appeared to be self-sustaining and most depend on access to some form of external subsidy» (Bennett S, Creese A, & Monasch R, 1998).
2. Insurance schemes lack a policy framework that allocates a place to small health insurance projects within the overall health system, which does not always allow for pooling across rich and poor people and may lead to increased inequalities of provision between different social groups with sometimes paradoxically the poor subsidising the rich (Bennett S et al., 1998; Borghi et al., 2006).
3. Premiums might not be affordable to poor people, «Insurance schemes struggle to reach the poorest people». (Borghi et al., 2006: 1458)

4. Additional consumption increases costs and limits coverage expansion (Frick K & Chernew M, 2008)
5. Pregnancy is not a typically insurable risk (Bennett S et al., 1998; Borghi et al., 2006).
6. Insurance is sometimes found to increase this risk instead of providing financial protection against the possibility of catastrophic payments (Ekman, 2007)
7. The interdependence between insurance and the price of care implies that there is more insurance and a higher price of care than would otherwise prevail. (Feldstein M, 1973)
8. Insurance only works if some people pay more in contributions than they take out in services (Normand C & S., 2008)
9. *«Individuals who know they are at high risk will want insurance and individuals who know they are a low risk will consider the contribution too high, so those actually applying for insurance are likely to be the more risky cases. This further increases the contributions, since contributions must reflect this higher-than-average risk. In the end, contributions may become unaffordable for many, and the insurance breaks down as a financial protection mechanism»* (Normand C & S., 2008: 163)

Recommendations: Borghi (2006) argues there is a need for increasing government or donor subsidy or both; for cross-subsidising insurance from other services; for including delivery care and transport in the insurance package and for introducing sliding premiums according to ability to pay or by geographic region (Borghi et al., 2006). Sharma (2005) argues for the inclusion of all aspects of antenatal and delivery care in the insurance package (Sharma S et al., 2005). For Monasch (1998) health insurance schemes must be well-designed and operational in order to increase the purchasing power of the poor, particularly in contexts where relatively large amounts of money are already spent as out-of-pocket payments in health (Bennett S et al., 1998). For Normand and Thomas (2008), it is necessary to establish conditions of membership (e.g. pensioners can only participate if they have been members for 50% of their working life); to improving waiting periods (e.g. voluntary members must have a waiting period before they can claim); and to limit voluntary access (e.g. each person has the chance only once in his or her life) (Normand and Thomas, 2008) (See Table 9)

Table 9: Recommendations for general health insurance	
Issues Addressed	Health Insurance
source	(Bennett S et al., 1998; Borghi et al., 2006; Normand C & S., 2008; Sharma S et al., 2005)
	Delivery care included in package
	Improve insurance schemes so that they include all aspects of antenatal and delivery care.
Design	Qualifying conditions for membership: For example, pensioners can only participate if they have been members for 50% of their working life.
	Waiting periods: Voluntary members must have a waiting period before they can claim.
	Limited voluntary access: Each person has the chance only once in his or her life
Target the Poor/Equity	Sliding premiums according to ability to pay or by geographic region
Funding	Increase government or donor subsidy or both; cross-subsidy from other services
Demand Barriers	Transport costs might be included

III. Social health insurance

«Social health insurance often operates at the national level, and is compulsory among certain segments of the population» (Borghi et al., 2006: 1460). The logic of social health insurance is that by reducing financial barriers, it can increase access to services generally, and reduce inequities by making these services affordable to the poor and other underserved groups (Bellows B et al., 2011). By accrediting many providers social insurance guarantees the service at the same price, increases competition and enables clients to choose; this increase in competition may thus improve efficiency in delivery, promote price reduction and quality increases, since providers must be certified (Bellows B et al., 2011).

Although some authors might argue that social health insurance subsidized by taxation at the national level is the best way to fund health care, systems of compulsory social health insurance are still little developed in lower income regions of Sub-Saharan Africa and struggle to provide compulsory insurance coverage to rural and poor areas because of geographic dispersion of households, low incomes, limited formal sector employment, and minimal health-care infrastructure (Borghi et al., 2006; Richard F et al., 2010)

IV. Community insurance

Community insurance is an attempt to mobilize and manage resources locally which provides members with the opportunity to give a flat payment in advance in return for free or reduced-cost health care if they get sick (Normand C & S., 2008; Poletti T et al., 2007)). Local insurance schemes are proposed as a solution for

increasing the utilization of safer motherhood services because they cover the costs of all district health centre services increasing women's ability to pay, when including maternity care (Nahar S & Costello A, 1998). Being a local scheme this mechanism may create more trust among the population, allowing additional collection of revenue, while increasing equitable access to primary health care and improving social protection (Normand C & S., 2008; Poletti T et al., 2007).

Challenges: criticism of general health insurance systems includes:

- 1) Low coverage: Community health insurance does not always cover large populations and does not always cover main target populations (Bennett S et al., 1998). This problem is particularly important in terms of maternal health because many schemes only cover certain aspects of reproductive care such as risks of complications, and few schemes cover costs such as transportation in emergency situations (Ensor T & Ronoh J, 2005);
- 2) Marginalization of the very poor: the poorest populations are left outside since the premium is often too high and payment conditions do not favour those with less ability to pay (Bennett S et al., 1998; Bennett S & Gilson L, 2001 ; Borghi et al., 2006; Gnawali D et al., 2009; Laterveer L et al., 2004; Poletti T et al., 2007);
- 3) Low revenue: local lack of resources may affect the capacity to sustain community insurance schemes (Normand C & S., 2008);
- 4) Risk management: community insurance schemes face efficiency challenges regarding risk sharing, since risk facing individuals are not independent (Normand C & S., 2008). The assumption of an insurance scheme is that the healthy pay for the expenses of the sick. Yet pregnancy in rural Sub-Saharan Africa occurs very regularly for many women in the community and there is a tendency for women to only join the schemes when expecting pregnancy (Ensor T & Ronoh J, 2005) ;
- 5) Poor management capacity of the community (Richard F et al., 2010)
- 6) Others: poor infra-structures, weak linkages with the broader health systems, legislation, institutional capacity, resistance to change among certain stakeholders (Normand C & S., 2008).

Recommendations: there is a need to subsidize the premium to favor the enrolment of the very poor (Gnawali D et al., 2009); to put in place measures for maximizing the population's capacity to enjoy the benefits of insurance once insured (Gnawali D et al., 2009); to cover costs such as transport (Ensor T & Ronoh J, 2005); to ensure that funding is distributed to the most needy, particular the poor living in non-urban areas (Ensor T & Ronoh J, 2005); and to improve management systems and invest in scheme design (Bennett S et al., 1998) (See Table 10)

Table 10: Recommendations on Community Insurance

Issues Addressed	Community Insurance
Source	(Bennett S et al., 1998; Ensor T & Ronoh J, 2005; Gnawali D et al., 2009)
Target the Poor/Equity	Subsidize the premium to favour the enrolment of the very poor Ensure that funding is distributed to the most needy, particularly the poor living in non-urban areas
Management	Improve management systems
Policy Framework	Implement measures in order to maximize the population's capacity to enjoy the benefits of insurance once insured (not only were the very poor less likely to enrol in Community based insurance, but even once insured, they were less likely to utilize health services compared to their wealthier counterparts) Increase transparency and predictability; Invest in scheme design.

V. Conditional Cash transfers

A conditional cash transference is a payment done to the user of a health service if he/she accepts to consume that service. The co-relation between cash transfers and maternal health outcomes did not become clear in this review. Some studies demonstrate that although overall rate of institutional deliveries may increase, the differences are not statistically significant (Lahariya C, 2011). Also Lagarde (2009) states that several Conditional Cash Transfer programmes provided strong evidence of a positive impact on the use of health services and health outcomes, yet it is hard to attribute these positive effects to the cash incentives specifically because other components may also contribute (Lagarde M, Haines A, & Palmer N, 2009). However many apparently well-designed evaluations strongly suggest that Conditional cash transfer programmes could be an effective approach to improving access to preventive services and sometimes improving health status (Lagarde M, Haines A, & Palmer N, 2007; Lagarde M et al., 2009).

A study in Mexico, about the programme “Oportunidades”, which conditionally transfers money to poor rural women to attend antenatal care (ANC) visits and reproductive health talks, found that cash transfers influence women's preferences, increasing not only their use of services directly linked to the cash transfers, but also of other services, such as clinic-based delivery, whose utilization is not obligatory (Sosa-Rubí SG, Walker D, Serván E, & S., 2011). Other studies from Mexico also show that conditional cash transfer programmes are associated with higher caesarean section rates in social security and government health facilities, with improved birth weight outcomes, and with better quality of prenatal care for low-income, rural women in Mexico (Barber S, 2010; Barber S & Gertler P, 2008, 2009). According to them “Oportunidades” beneficiaries received 12.2% more prenatal procedures compared with non-beneficiaries; had significantly higher caesarean delivery rates in social

security facilities (24.0 compared with 5.6% among non-beneficiaries) and in other government facilities (19.3 compared with 9.5%); and that beneficiaries' health status was associated with 127.3 g higher birth weight among participating women and a 4.6 percentage point reduction in low birth weight (Barber S, 2010; Barber S & Gertler P, 2008, 2009).

India also launched a national conditional cash transfer program, Janani Suraksha Yojana (JSY), aimed at reducing maternal mortality by promoting institutional delivery in 2005, providing a cash incentive to women who give birth in public health facilities. Studies argue that a large proportion of women delivered under the program, with most mothers reporting timely receipt of the cash transfer (Sidney K, Diwan V, El-Khatib Z, & A., 2012; Vinod P, 2010). They had a particularly significant effect on increasing antenatal care and in-facility births and that payment was associated with a reduction of 3.7 (95% CI 2.2-5.2) perinatal deaths per 1000 pregnancies and 2.3 (0.9-3.7) neonatal deaths per 1000 live births (Lim S et al., 2010).

Challenges: reported challenges of Conditional Cash Transfers are the following: women who are uneducated, multiparous or lack prior knowledge of the programs tend to be significantly more likely to deliver at home; there is a risk of lack of awareness about the scheme amongst the general population and beneficiaries; procedures for cash disbursement procedures are sometimes burdensome with extensive paper work, the eligibility criteria might be complex; insufficient focus on community involvement was a major implementation challenge; political interference and possible scope for corruption; poor planning and coordination; situations were reported where mothers and babies are discharged within hours after delivery because the hospitals lack amenities, and families want to return home having got the cash incentive; conditional cash transfers may not be replicable in more deprived settings, since they depend on effective primary health care and mechanisms to disburse payments (Lagarde M et al., 2009; Lahariya C, 2011; Lim S et al., 2010; Sidney K et al., 2012; Vinod P, 2010). In Nepal the Safe Delivery Incentive Programme (SDIP) was introduced nationwide in 2005 with the intention of increasing utilisation of professional care at childbirth. It provided cash to women giving birth in a health facility and an incentive to the health provider for each delivery attended, either at home or in the facility. Problems at central level imposed severe constraints on the ability of district-level actors to implement the programme. These included bureaucratic delays in the disbursement of funds, difficulties in communicating the policy, both to implementers

and the wider public and the complexity of the programme's design (Powell-Jackson T, Morrison J, Tiwari S, Neupane B, & Costello A, 2009).

Recommendations: need for improved targeting of the poorest women and for attention to quality of obstetric care in health facilities; for continued independent monitoring and evaluation; for proper training, detailed implementation plan, orientation training for implementer, and sufficient budgetary allocation; for improvements in community participation; for further rigorous evaluative research in Sub-Saharan Africa; and a demand for conditional cash transfers to ensure the stay of the mother baby dyad in a facility for at least 48 h after delivery, and for seeking treatment of sick newborn babies (Lagarde M et al., 2009; Lim S et al., 2010; Vinod P, 2010) (See Table 10)

Table 10: Recommendations on Conditional cash Transferences

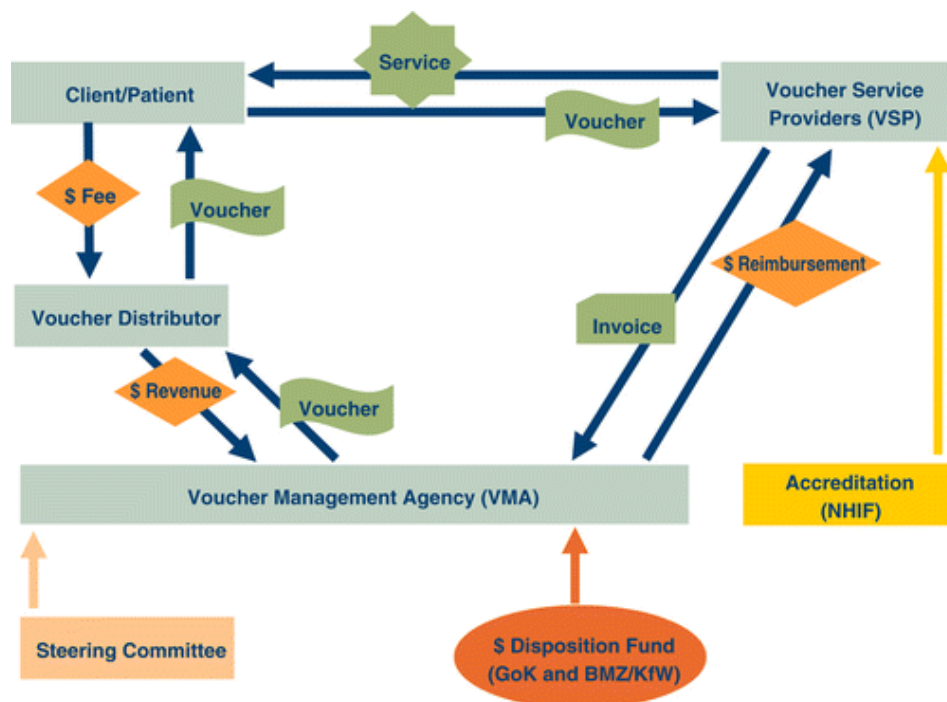
Issues Addressed	Conditional Cash transferences
source	(Lagarde M et al., 2009; Lim S et al., 2010; Vinod P, 2010)
Design	Demand for conditional cash transfers to ensure the stay of the mother baby dyad in a facility for at least 48 h after delivery, and for seeking treatment of sick newborn babies
Target the Poor/Equity	Improve targeting of the poorest women
Quality	Increase attention to quality of obstetric care in health facilities
Community	Improve community participation
Management	Preserve continued independent monitoring and evaluation
Funding	Guarantee sufficient budgetary allocation
Other contextual support	Conduct rigorous evaluative research in Sub-Saharan Africa
Previous to implementation/ Design/ Planning	Provide proper training, detailed implementation plan, orientation training for implementer
Demand Barriers	Schemes should cover costs such as transport

VI. Voucher Schemes

A voucher scheme is a financial mechanism that targets specific marginalized groups, allowing them to convert the vouchers in exchange for free maternal services in health facilities contracted in advanced by the voucher agency. Figure 5 (next page) shows the channels through which a voucher system functions: the voucher distributor gives the vouchers to the clients who then use these to obtain health services. The service provider is then able to use the voucher to obtain reimbursement.

Figure 5: Organization of Voucher Schemes

Source: IGES (Janisch C, Albrecht M, Wolfschuetz A, Kundu F, & Klein S, 2010)



Vouchers have been adopted as an innovative mechanism to reduce financial barriers and improve access to maternal health services for the poor and especially for the poorest of the poor (Abuya T et al., 2012; Ir P, Horemans D, Souk N, & Van Damme W, 2010; Killewo J, Anwar I, Bashir I, Yunus M, & J., 2006). Voucher programmes provide incentives to improve provider quality, to stimulate patient use of selected services, to target services at high-priority populations, and to contain costs (Bellows B, Kyobutungi C, Mutua M, Warren C, & Ezeh A, 2012). «Initial findings from the few assessments of reproductive health voucher programs suggest that, if implemented well, they have great potential for achieving the policy objectives of increasing access and use, reducing inequities and enhancing program efficiency and service quality» (Bellows B et al., 2011: 2). According to The World Bank, such schemes may contribute to quality of care and efficiency, since by offering beneficiaries a choice of provider they create incentives to lower prices or raise quality (Sandiford P, Gorter A, & M., 2002). «If carefully designed and implemented, vouchers have a strong potential for improving access to skilled birth attendants for poor women» (Ir P et al., 2010: 1).

Vouchers schemes for reproductive health date from the 60's, but more lately there has been a renascent tendency for experimenting them again (Bellows B et al., 2011). In Pakistan voucher intervention implemented for 12 months was associated with substantial increases in institutional deliveries (Agha S, 2011). In Kenya, a positive association was observed between vouchers and facility-based deliveries in Nairobi and findings suggest that increases in facility-based deliveries can be achieved through output-based finance models that target subsidies to underserved (Bellows B et al., 2012). In Bangladesh women from the areas where cash incentives and free access to antenatal, delivery, and postnatal care were distributed had a 46.4 percentage point higher probability of using a qualified provider and 13.6 percentage point higher probability of institutional delivery (Nguyen H et al., 2012). Increased use of maternal health services has been reported since the schemes began. Areas for improvement in these schemes, identified in this review, include the need for more efficient operational management, clear guidelines, financial transparency, plans for sustainability, evidence of equity and, above all, proven impact on quality of care and maternal mortality and morbidity (Jehan K, Sidney K, Smith H, & Costa A, 2012).

Challenges: For Warren (2011) evidence suggests that voucher programs functions in different settings, for various reproductive health services delivered through public, for-profit or non-profit organizations and that voucher programs positively affect the operational efficiency and business model used by service delivery organizations and individual providers (Warren C et al., 2011). Yet for other authors there is still a need for higher quality evidence and validation in future studies given the paucity of evidence describing how the various voucher programs function in different settings, for various reproductive health services and for services delivered through public, for-profit or non-profit organizations and how the Vouchers programs affects the operational efficiency and business model used by service delivery organizations and individual providers (Bellows B et al., 2012; Bellows B et al., 2011; Borghi et al., 2006; Jehan K et al., 2012). Risk of black market and high administrative costs can be a serious disadvantage (Borghi et al., 2006). According to Bellows (2012) it remains to be seen whether the service is sufficiently cost-effective to scale nationally (Bellows B et al., 2012).

Recommendations: authors mention that for effective scale up, strong partnership will be required between the public and private entities; the governments should include provision of adequate funding, stewardship and look for opportunities to utilize existing platforms to scale up such strategies (Abuya T et al., 2012; Ir P et al., 2010). It is also necessary to increase feedback to providers and information to clients on the benefit package; claims processing and reimbursement requires adherence to

time consuming procedures; it is necessary to ensure the supply of sufficient quality maternity services and to address other non-financial barriers to demand (Abuya T et al., 2012; Ir P et al., 2010). (See Table 12)

Table 12: Recommendations on Voucher Schemes

Issues Addressed	Voucher Schemes
Source	(Abuya T et al., 2012; Ir P et al., 2010)
Quality	Ensure the supply of sufficient quality maternity services
Information/ Communication	Increase feedback to providers and information to clients on the benefit package
Funding	Increase provision of adequate funding
Policy Making/ Policy Framework	Promote strong partnership between the public and private entities Governments should include stewardship and look for opportunities to utilize existing platforms to scale up such strategies
Payment to providers	Claims processing and reimbursement require adherence to time consuming procedure
Demand Barriers	Address other non-financial barriers to demand;

VII. Community Loan Funds

Communities can also set up and administer loan funds for emergency obstetric transport and care that work not merely as a life-saving strategy in remote and resource-poor health infrastructures, but also as a means to help build trust in the health system itself and thus improve sustainability through local institutional support (Chiwuzie J , Okojie O, & Okolocha C, 1997; MacIntyre K, 1999). Community-managed loan and transport systems for women with obstetric emergencies may contribute to reducing delay in obtaining emergency obstetric care, to increasing and to reducing case fatality (Ahmed Y, Shehu CE, Nwobodo EI, & Ekele BA, 2004; Essien E et al., 1997; Fofana P, Samai O, Kebbie A, & Sengeh P, 1997).

Challenges: limited capacity to generate funds, limited financial sustainability, limited management capacity and it is difficult to ensure cash is used for its intended purpose (Borghi et al., 2006; Ensor T & Ronoh J, 2005).

Recommendations: sustaining the funds over the long term requires continuing effort and involvement with the communities dependent on strong community leadership and requires substantial mobilization efforts (Chiwuzie J et al., 1997; Fofana P et al., 1997) (See .

Table 13: Recommendations on Community Loan Funds

Issues Addressed	Community Loan Funds
Source	(Borghi et al., 2006; Ensor T & Ronoh J, 2005).
Communities	Improve community leadership and mobilization
Funding	Sustaining the funds over the long term

VIII. DISCUSSION

1. User fees do not work for maternal care in rural Sub-Saharan Africa

What is the purpose of user fees in a health system with low demand, where insurance is not widespread and where price is not zero?

User fees were set because in theory when the price is zero (i.e. when a service is free), people tend to consume infinite amounts of care. At the time when co-payments were introduced in high income countries, like the United States, there was widespread offer of medical care, leading to excesses of demand called moral hazard.

In this type of setting, where medical care insurance is widely available, if health services are free or modestly priced at the point of contact, there is no incentive to limit demand because either the insurance company or the state pays it can therefore be opportune to limit consumption through a price barrier.

That is why user fees make sense. However, the case of maternal care in rural Sub-Saharan Africa is different because: (1) demand by definition is depressed, not in excess; (2) coverage systems are neither functional nor fully available; and (3) the price of maternal care in these settings is not zero.

A review by Eldis Health and Development Information Team concludes that frivolous use is unlikely to occur on a large scale in developing countries due to barriers such as geographical access, as it usually already requires the woman to be informed enough to identify of her health condition and to prioritize her needs before choosing to consume (IDS, 2012).

In fact, the total price of maternal health care for women living in a rural Sub-Saharan includes many extra costs like transportation and food expenditure at the treatment site, and opportunity costs, like the loss of daily income, time spent travelling great distances, and sacrifice of other essential goods and services such as food or children's education (Meessen B et al., 2006).

It could be argued that in High Income Countries people also have costs not covered by any insurance system (like transportation, time, distance and income) and that these people also have to make sacrifices. Yet road condition, quality of transportation and budget constraints of women living in Sub-Saharan Africa are not comparable with an average women living in a High Income Country.

To a woman living in High Income Country these costs may represent a total price close to zero, while to a woman living in rural Africa the total cost of maternal care

is inestimably higher than their purchasing power and constitute a barrier for health care consumption.

Therefore, if a price is set for controlling excess of demand and (1) women in rural Africa are already paying an enormous price for maternal care and (2) maternal care is underused, why is reproductive healthcare in rural Africa being additionally charged? And why impose a barrier in a service that is essential, risking high socioeconomic externalities?

Given the importance of having healthy women in developing countries, and knowing that user fees were conceived as a mechanism to control excessive demand, it makes no sense to additionally charge services that are already being highly priced and where price constitutes an extra barrier for poor women to consume maternal care. Moreover, no study was found proving an effective reduction of frivolous demand caused by the introduction of user fees.

In the words of Yates (2009), *«we should have known in the context of improvement of health outcomes and reduction of poverty that taking money from poor people when they are sick is not a good idea»* (Yates R, 2009: 2081).

i. A “lose lose situation”

When poor people are price sensitive user fees make them leave the health system, and when poor people are price insensitive user fees lead them to sacrifice.

Generally the demand for health care by poor people is price sensitive (Meessen B et al., 2006). In 1990, Germano Mwabu, from the Population and Human Resources Department of The World Bank, stated precisely that the poor have higher elasticity than non-poor and recognized that if prices were significantly increased poor people would move out of the health care system and rely on traditional medicine (Mwabu G, 1990: 4).

According to him, *«if patients are very sensitive to costs of medical care, implementation of user fees could cause a large reduction in utilization of health services»*. In the same document Mwabu also describes what happens when poor patients are insensitive to prices of medical care: *«they sacrifice other basic necessities to obtain health care... But their sacrifices would not be desirable from the perspective of society»*(Mwabu G, 1990: 4).

In this report the author clearly states that user fees may create large inequalities in health care and that *«charging for primary health care services in a poor region is potentially welfare reducing»*. However user fees still suggested as a potential option for improving health outcomes. Two things may be concluded:

1) Independently of the elasticity to maternal care of rural Sub-Saharan women, user fees lead to a “lose lose” situation where either they restrain their consumption of an essential and lifesaving service or they risk sacrificing other essential goods and services;

2) The World Bank predicted the detrimental effects of this policy on people’s lives, yet underestimated their impact due to theoretical assumptions.

ii. What if user fees do not impact maternal care utilization?

Although several authors mention that user fees produce a negative impact on utilization and despite the conceptual and ethical arguments discussed above, an extensive review by the World Health Organization, assessing the quality of the existing evidence on the impact of user fees on health service utilization in low- and middle-income countries, found limited evidence that *«the introduction of user fees decreases utilization in the form of one sharp reduction»* and that *«this effect extends beyond this initial drop»* (Lagarde M & Palmer N, 2008).

If this is true, more accurate studies could be undertaken on the impact of user fees on utilization of maternal care. However, why weren’t these studies undertaken prior to a large scale suggestion for and implementation of this mechanism? *«It should not be acceptable to make claims for any benefits from user fees when the basic underlying conditions do not exist for their introduction; where doing so has predictable negative impacts»* (Poletti T, 2004).

Moreover, as discussed above, even if user fees do not directly decrease the utilization of maternal health services they may impact people’s consumption of other essential goods and services when demand for care is inelastic. Studies on the impact of user fees on demand for maternal care should thus take into consideration this cross-effect.

iii. User fees do not raise enough money, which limits quality improvements

Another conclusion from Lagarde’ study (2008), also reached by many different pro fee authors, is that *«the combination of user fees and improvements in quality can increase utilization»* (Lagarde M & Palmer N, 2008).

In most of the rural Sub-Saharan African countries revenues are very low and the little money potentially collected is not enough to raise health care quality standards.

Because the price is raised and quality is not significantly improved, the effect of user fees utilization is different from the one presented by Britan (2002). When quality improvements are minimal the effect of price exceeds their effect on demand, thus quantity demanded after fee may reach lower levels than quantity demanded before.

If fees have a detrimental effect on utilization, this will be reflected in total revenue through a lower collection of funds, and that may transport suppliers to a worse-off position than the one prior to the introduction of user fees, especially when we add high fee administrative costs.

This raises two questions: the first is what level of user charge would be appropriate to attain enough revenue? The second is how much revenue would have to be collected in order to address necessary quality improvements?

It can be argued that no matter what the level of fees, the contribution of user charges is relatively insignificant when compared to the level of revenue needed for scaling up maternal health in rural areas of Sub-Saharan Africa.

However, it can also be argued that because quality is really scarce, no matter how small the revenue generated by user fees is, little improvements may have great impact. Yet, so far, the combination of user fees and improvements in quality was only registered in few countries, particularly located in Asia. Therefore it would be interesting to analyse why countries like Cambodia and Vietnam were so successful at improving quality and demand in comparison to most of Sub-Saharan Africa. Also, it may be that another financing mechanism was used to attain the improvements in quality, particularly when the effects on demand are so uncertain.

iv. How functional is the collection of funds?

Another key element of user fee revenue is the point of collection of funds. On one hand, in systems where fees are collected centrally (like in countries which adapted a standard model of user fees to cross-subsidize rural areas, to promote decentralization and to favour price coordination) it has been difficult to ensure that revenues reach health facilities and it has also been noticed that there is little effort to collect the fees at facility levels. Also most of the evidence points to the fact that cross-subsidizing between regions does not happen and that fees contribute to increasing geographical disparities.

On the other hand, in systems where the Bamako initiative (BI) was implemented (mainly in francophone African countries to promote local community

management) attendance at the tertiary level tends to be reduced and fee waivers are reported to be infrequent (Ensor T & Ronoh J, 2005). *«Experience suggests that locally generated funding, such as user charges is often used to substitute for a lack of regular budget funding and leads to little net increase in resources. As a consequence there is no funding left to improve quality»* (Ensor T & Ronoh J, 2005: 56). (See Table 15 in appendix)

In both models of implementing user fees in Sub-Saharan Africa the collection of funds has not been functional.

v. User Fees are not the key for solving referral problems

The ability of fees to improve the referral system is one of the biggest arguments for the standard model of user fees in Sub-Saharan settings. Yet studies analysed did not contain very detailed proof of the impact of user fees on referral system and registered several unsolved issues which, when addressed together, could have a greater impact than user fees alone. Communities do not know the functional differences between a hospital and a clinic; people still have to pay high prices for transport and other indirect costs when visiting tertiary level health facilities; communication between services and users is often not effective; although referred patients do not pay for hospital consultation fees once admitted the patient still has to pay or prove he/she is eligible.

User fees may instead lead to delays in treatment and more severe cases, and recourse to other treatment options which are less effective (IDS, 2012). Therefore studies should be done to understand how efficient respect for the maternal care referral systems could be promoted among rural Sub-Saharan women without harming equity.

vi. User fees work against the poor

Evidence shows that above all user fees are not working for the poor but against them. Maternal user fees are being applied in communities where almost all women are very poor. Therefore if exemptions were functional, user fees would be minimal and mostly work as a discretionary measure for those few who could pay for health in rural areas of Sub-Saharan Africa. Not the contrary, as we see today.

vii. User fees cannot be seen as a first best solution

In order to protect the interests of the poor and marginalised people that account for the majority of rural Sub-Saharan Africa, in these settings the introduction of user fees should never be understood as a first best solution for solving the problem of scarce maternal health. On the contrary, charging out-of-pocket expenses can only be seen as a complementary means to “top-up” potential excess of demand, which is not the case for most of the region under study.

2. Key recommendations for a well-functioning maternal health system in Sub-Saharan Africa

i. Asking the wrong questions

One of the problems of the health mechanisms that have been put into practice is that the right questions have not always been raised.

If the question is how to increase efficiency in the health system, should policies not start by ensuring appropriate allocation of resources among essential packages of health services; by developing cost-effectiveness analysis; by improving management practices; by prioritizing health-sector activities to meet the prevailing disease burdens in each country (where maternal health plays a large role); and by training health personnel to provide more accurate care? If the question is how to increase revenue, should efforts to look for funding not focus on how those who have more resources can contribute, instead of asking the poorest to pay? If the question is how to improve the referral system, should governments not start by educating populations on how it works instead of fixing a price expecting them to learn by force?

Increase quality is essential because if better maternal care services are offered demand for care increases (Akashi H et al., 2004; Dao H et al., 2008; Sepehri A et al., 2005). *«One of the key ways in which financing reform may improve the access of the poor to health care is through improving the quality of care of publicly funded (and potentially privately funded) services.»* (Bennett S & Gilson L, 2000: 13) However there are alternative and more effective ways of improving services, such as the adoption of guidelines and procedures to promote revenue use for perceived quality improvements, that do not affect poor consumers (Gilson L, 1997).

Supply side mechanisms are not appropriate to solve demand side problems – for instance marginal changes in provider payments (supply) have a limited effect on utilization (demand) (Gauri V, 2001) – as demand side interventions, like limiting consumers' ability to pay, are not appropriate for solving supply side problems related to quality and efficiency. Instead, supply-side policies are the preferred instruments for cost control (Ellis R & McGuire T, 1990). *«If cost is a problem, the first question that should be asked is, “what can be done with the provider reimbursement system³”, rather than the traditional “how can insurance benefits be reduced?”»* (Ellis R & McGuire T, 1990: 394).

Recommendations on provider payment schemes suggest the need to ensure that these mechanisms cover average production costs for each provider type and that payments to facilities are either made in advance, based on predicted caseload, and adjusted periodically, based on reports, or paid retrospectively to avoid cash-flow problems (Abuya T et al., 2012; Bennett S & Gilson L, 2000; Ir P et al., 2010; Loveday Penn-Kekanaa, 2007; Sophie Witter, 2008).

ii. Asking the right question

From the experience of user fees in maternal health it can be learned that when choosing a health financing mechanism the first question which has to be raised is “Does that precise mechanism improve the demand?” and along with the answer two assumptions must be made:

- a) If the answer is negative the mechanism should be set aside;
- b) If the answer is positive there is a need to improve the supply of maternal care so that it faces both actual demand and the additional demand.

iii. How prepared can an inelastic and deprived supply be for an increased consumption?

Most of the hospital and health centres in rural Sub-Saharan Africa already lack enough quantity and quality of human and capital resources to provide adequate care

³ Reimbursement systems are payment schemes that have achieved the desired balance between protecting consumers from financial risk and controlling are characterized by generous insurance coverage and financial incentives for providers to control costs.

for all births that presently take place. Some areas have less than 10% of the requirements in terms of adequately trained health professionals and have underequipped health facilities (Borghi et al., 2006).

Additionally, supply in rural Sub-Saharan Africa has slow response capacity. In rural areas of Sub-Saharan Africa, it takes time to ensure drug distribution, contracting of staff, purchasing of equipment or construction of infra-structure, which makes any increase in demand experience a natural delay in response from suppliers.

Because of these two factors any mechanism that promotes a higher demand in maternal health care may cause a dreadful overloading of services, unless preventive measures are taken.

iv. **Poor women cannot pay for maternal health care**

The cost of delivering health care to poor women in rural Sub-Saharan Africa will always entail total or partial subsidization:

«The very poor are unable to make any significant financial contribution for health services: governments must secure health care financing for them, and particularly for their use of hospital care, either through direct payment from tax revenues or cross-subsidies in insurance-based systems.»
(Bennett S & Gilson L, 2000: 15)

«The cost of delivering reproductive health services to low-income populations will always require total or partial subsidization by the government and/or development partners.»
(Bellows B et al., 2011: 2)

All mechanisms analysed predict that low income women should have free access to maternal care. In the user fee system this is done through exemptions; in insurance systems, when the premium is too high, those who cannot pay are subsidized; in a universal coverage system health care is free; in a voucher or cash transference system the poor are paid to consume.

This poses two main issues:

1) Who is going to pay for these subsidies?

This again entails the need of extra funding in maternal health care.

2) How to ensure that funding is distributed to the most needy, particular the poor living in non-urban areas?

Ensuring that funding is distributed to the neediest women firstly requires awareness of who they are, which entails the implementation of functional targeting mechanisms, in articulation with local communities, a measure which:

- a) Produces realistic measurements of household resources available for maternal care;
- b) Distinguishes poor from the non-poor;
- c) Is feasible to implement at the local level;
- d) Considers the impact on poor women and households of the total mix of financing mechanism;
- e) Favours relatively under sourced geographical areas. (Bennett S & Gilson L, 2000; Gilson L, 1997; Loveday Penn-Kekanaa, 2007; Sophie Witter, 2008) (See Table 14 in appendix)

v. How to address other non-financial barriers to demand?

Critics suggest the scope for additional demand-side investments, such as in transport funds, should be considered alongside supply-side approaches, in specific areas of need (Bennett S & Gilson L, 2000; Borghi et al., 2006; Ensor T & Ronoh J, 2005). *«Poor people's access to health care is often constrained by low quality care, high transport costs, long waiting times and inconvenient opening hours. Financial reforms, which deliver improvements in these dimensions of quality at a moderate price, particularly in relation to hospital care, will probably benefit the poor»* (Bennett S & Gilson L, 2000: 16) (See Table 14 in appendix).

vi. Overcoming corruption

Corruption is a transversal and undermining factor of dysfunctional health services in Low and Middle Income Countries particularly affecting the scaling up of reproductive care in Sub-Saharan Africa. Suggestions for overcoming it are the following:

- a) Improve professional ethics to counterbalance health workers' responsiveness to financial incentives
- b) Avoid the capture of exemptions by non-poor groups such as civil servants
- c) Introduce appropriate financial incentives to deter the risk of informal charges (like monitoring health facilities with checks to ensure that costs are not being shifted onto other services or into informal payments). (Bennett S

& Gilson L, 2000; Borghi et al., 2006; Gilson L, 1997; Loveday Penn-Kekanaa, 2007; Richard F et al., 2011; Sophie Witter, 2008) (See Table 14 in appendix).

vii. Management

a) Improve management skills and systems

- Develop skills and systems to enable decentralization of resource use, control and management within a wider system to an appropriate level;
- Develop management-oriented information systems which allow monitoring by providing data on, for example, revenue collected, revenue use patterns;
- Provide training in financial skills to the people working in the health care system so they are able to estimate costs, set prices, and bill the schemes in a timely manner
- Capacitate local programme managers to continuously make programme-improving adjustments

b) Provide appropriate incentives

- Introduce appropriate financial incentives to ensure infrastructural capacity to manage increased demand
- Introduce appropriate financial incentives to counteract over-medicalization

c) Promote best practices in monitoring and supervision

- Develop effective management and clinical supervision (timely monitoring should pick up and respond to problems, but also flag up successes to generate continued financial support);
- Develop clear lines of responsibility (both institutional and individual) for managing and monitoring the policy implementation process;
- Preserve continued, periodic and independent monitoring and evaluations against these guidelines (that take in consideration baseline indicators such as: cost escalation, utilisation, quality of care, household costs, and health outcomes including maternal mortality and caesarean rates);
- Develop effective audit procedures to ensure accountability and support at a local level (district or community);
- Maintain activities record-keeping that allows for independent verification of cases managed;
- Documented. learning lessons and detail related to the process when evaluating programmes (Bennett S & Gilson L, 2000; Bennett S et al.,

1998; Borghi et al., 2006; Ensor T & Ronoh J, 2005; Gnawali D et al., 2009; Lagarde M et al., 2009; Lim S et al., 2010; Loveday Penn-Kekanaa, 2007; Richard F et al., 2011; Sophie Witter, 2008; Vinod P, 2010) (See Table 14 in appendix).

viii. Communication

An primary challenge that financial health schemes often face is the inadequate level of publicity of policies which limits information delivery to the people in need, who by nature tend to be the most “info excluded”. The consequence is that *«poor maybe deterred from using health services because of uncertainty about how much they cost and the potential embarrassment of not being able to pay»* (Bennett S & Gilson L, 2000: 12). Overcoming lack of policy communication may also lead to encourage public debate and create a feedback that informs policy development (Bennett S & Gilson L, 2000).

Some suggestions are to increase the information to clients and to health workers on the benefit package, keeping core messages as simple as possible; to improve the feedback to providers; and to ensure the price structure is advertised within healthcare facilities. (Abuya T et al., 2012; Bennett S & Gilson L, 2000; Gilson L, 1997; Ir P et al., 2010; Loveday Penn-Kekanaa, 2007; Sophie Witter, 2008) (See Table 14 in appendix).

ix. Improving policy framework

Improving policy framework has high positive externalities and is an essential step in the path towards improving health care quality, developing financial health systems and implementing organization reforms in Sub-Saharan Africa and in a sector typically closed, confined to discussions between an elite group of bureaucrats, politicians and external adviser (Bennett S & Gilson L, 2000). Recommendations for improving policy frameworks range from a political spectrum, to concrete health sector reform proposals, to generation of consensus among stakeholders, policy design, planning and implementation, capacity building and research development:

a) Political spectrum

- Governments should include stewardship and look for opportunities to utilize existing platforms to scale up such strategies, concede funding and provide regulatory and policy frameworks for the various forms of financing;

- International agencies and technical advisors need to give “advice” more circumspectly;

b) Health sector reforms

- Develop institutional capacity within health systems to provide support to local level decision makers;
- Increase transparency and predictability;
- Develop a supportive legal framework for fee/sustainability policies;

c) Consensus generation

- Ensure all key stakeholders are consulted and involved in development of the policy (e.g. policy guidelines communicated to all key stakeholders)
- Promote strong partnership between the public and private entities and wider institutional support (e.g. banking facilities; communication facilities);
- Ensure that the exemption system is given high priority by politicians and bureaucrats alike;
- Engage with potential ‘champions’, who can sustain the policy momentum nationally and sell the policy politically;
- Involve implementers in designing policies;

d) Policy Design

- Develop complementary risk-sharing financing mechanisms;
- Guarantee that policy is consistent with the wider policy environment and thinking in government;
- Ensure policy guidelines are clearly elaborated;
- Ensure programmes are defined locally in space and time (i.e. not once-and-for-all but on a continuous basis of re-evaluation);

e) Capacity Building

- Provide detailed implementation plan and orientation training for implementers;
- Develop technical skills within each country for the designing of pro-poor financing reforms;
- Draw technicians into policy-making in appropriate ways;
- Develop adequate leadership and advocacy skills within the health sector to develop political support for appropriate design and policy;

f) Research development

- Develop thorough situation analysis of the main barriers to increasing skilled delivery;
- Document and share country experiences focussing not only on costs and outcomes, but also on the processes which enabled policies to be sustained and to be effective;

- Develop evaluative research in Sub-Saharan Africa;

d) Planning

- Develop good prior estimates of financial and other resources needed, taking into account an increase in the patient load, a willingness to enforce the policy by frontline staff, and to ensure good implementation (policies should be carefully and realistically costed – based on utilisation patterns, caseload, unit costs, and projected changes to these – and matched with likely funding sources)
- Invest in scheme design;
- Financing reforms should be carefully phased, both so as to build upon existing capacity and to ensure proper fit between different elements of the reform. (Bennett S & Gilson L, 2000; Bennett S et al., 1998; Borghi et al., 2006; Chiwuzie J et al., 1997; Ensor T & Ronoh J, 2005; Fofana P et al., 1997; Gnawali D et al., 2009; Lim S et al., 2010; Loveday Penn-Kekanaa, 2007; Ranson K et al., 2010; Richard F et al., 2011; Sophie Witter, 2008)

x. Context matters

Authors are unanimous – the context in which the policy operates matters and is determinant when choosing a financial mechanism for maternal care in heterogeneous rural sub-Sahara (Borghi et al., 2006; Chiwuzie J et al., 1997; Ellis R & McGuire T, 1990; James C et al., 2006; Meessen B et al., 2006; Normand C & S., 2008; Parkhurst J et al., 2005; Pauly M, 1968; Powell-Jackson T et al., 2009; Richard F et al., 2010; Witter S et al., 2007).

For instance, this three-country study of health reforms and maternal health (Loveday Penn-Kekanaa, 2007) shows how context is important and how the key to understanding challenges in implementation lies in complex and dynamic responses of health workers and community members to policies and programmes. The study compares maternity services in Bangladesh, Russia, South Africa and Uganda and concludes – *«the devil is in the detail... details are what studies of maternity services need to focus on, so that patterns can be deduced and strategy tailored to take account of responses that have been observed in other studies»* (Loveday Penn-Kekanaa, 2007: 34). Here an example: *«a programme may be defined as “training midwives” or “expanding skilled birth attendance”, but it will have incorporated a wealth of detailed components – a recruitment strategy, a consultation strategy, a training curriculum, a group of trainers and trainees, an incentive regime, a management team and an information system, among others – that need to be analysed, defined and monitored.*

Details cannot be copied from other existing programmes because the individuals involved cannot be reproduced, and geographical terrain and population distribution are not identical. This is because context matters.» (Loveday Penn-Kekanaa, 2007: 34).

Another study brought to light by Bennett (2007) shows how in practice political pressures may prevent shifts in resource allocation to the poor, and limited government capacity may hinder the effective implementation of exemption schemes to protect the poor, or may prevent the promised gains in quality of care from actually materialising (Bennett S & Gilson L, 2000)

Yet, despite the recognition of the impact of context on the design, implementation and choice of financial schemes in general and maternal health in particular, *«the critical importance of these factors to outcome is not reflected adequately in the policy advice currently being offered, or given the attention in official reports and publications that it deserves.»* (Loveday Penn-Kekanaa, 2007: 34).

To overcome this, measures should be taken, in addition to the ones already cited in policy framework section, for making mechanisms adaptable in response to local circumstances. Such as:

a) Involve the community in decision making

- Encourage broader consultation with groups representing and working with the poor, such as non-governmental organisations, religious organisations and other specific interest groups;
- Consider how complementary players, such as Traditional Birth Attendants, can be involved in the policy in a constructive way;
- Build community consensus about the desirability, rationale and direction of reform

b) Improve mechanisms design

- Develop community management mechanisms at a primary level which ensure accountability to community and can assist the poor;
- Encourage exemption screening to take place close to the household in the community or local health care facility through mechanisms that involve both community members and health workers and by individuals trained for the task;
- Develop periodic community-based surveys to assess actual benefits of the policy for different socio-economic and geographical groups;

c) Develop capacity building

- Develop capacity building actions within the community to improve community participation and build strong community leadership capable of substantial mobilization of efforts (Bennett S & Gilson L, 2000; Chiwuzie J et al., 1997;

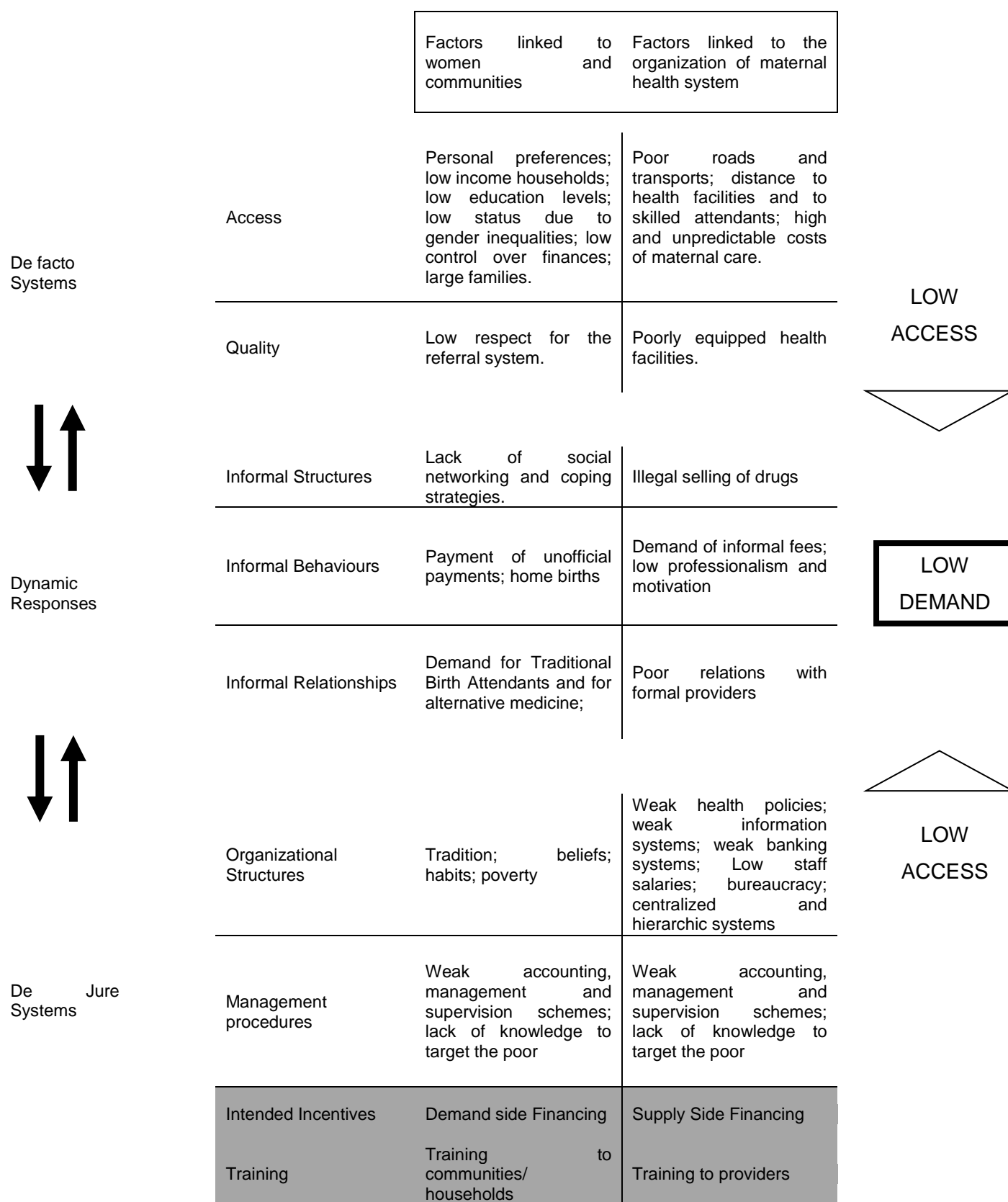
Fofana P et al., 1997; Gilson L, 1997; Lagarde M et al., 2009; Lim S et al., 2010; Loveday Penn-Kekanaa, 2007; Sophie Witter, 2008; Vinod P, 2010) (See Table 15 in appendix).

xi. Model for Understanding the context of a low demand

Pro-poor financing mechanisms can only be developed on the bases of a comprehensive understanding of the circumstances, needs, constraints and potentials of the poor (Meessen B, 2006, Pauly, 1968, Sarah Bennett, 2000). For the general understanding of the factors underlining the lack of formal maternal healthcare demand in Sub-Saharan, a dynamic responsive model, which gives account of the obstacles for households assessing care, was developed (See Figure 6).

Based on the previous works of Witter (2008), Penn-Kekanaa (2007), Gilson (1997) and Samuelson (2005) this model explains how *De facto* and *De Jure* Systems interact both with the dynamic responses of rural women and the communities in Sub-Saharan African, as well as with the organization of the health system, in order to cause a depressive demand. It was conceived as a proposal to guide researchers and project managers in the development of the solutions that may contribute to an increase of the use of maternal health services in specific contexts. This model is to be understood as a flexible and dynamic framework, which can be applied in different contexts; in other words, it conveys the necessary tools to adapt the maternal health system to different communities, spaces and times, on the basis of the analysis, identification and respect for the local beliefs, habits and needs.

Figure 6 Dynamic Responsive Model: Barriers For Women Assessing Care In Rural Sub-Saharan Africa



xii. Applying the model in a real context

To give an example of how the transposition of the model into reality could be done a region of Sub-Saharan Africa was selected, namely the Kwale district in Kenya. Kenya is situated in the eastern part of the African continent. The country is divided into 8 provinces and 158 districts (KNBS and ICF Macro, 2010). Maternal health indicators in Kenya have been slightly but not enough over the years but not significantly and the mortality rates are still high (UNICEF, 2012b, 2012c; UNICEF WHO UNFPA & Guttmacher Institute, 1997). The causes of maternal death are identified: they are all directly related to unsafe abortion, pregnancy, and obstetric complications such as severe bleeding, infection, obstructed labour and hypertensive disorders (UNDP). Kwale, one of the poorest districts in Kenya, is situated on the Coast Province, 45 kilometres south of the city of Mombasa city, in the South-Eastern corner of Kenya and borders the Indian Ocean to the East and Tanzania to the South (USAID, 2012). The district has 6 Divisions, 37 Locations, and 86 Sub-Locations and a resident population of 566,887 persons (Roschanski H, 2007). The estimated number of women of reproductive age is 37,548, the estimated number of pregnancies is 6,258 annually (USAID, 2012). 50% of the deliveries are not medically assisted (USAID, 2011). The maternal mortality rate in the district is considerably higher than the national estimate (USAID, 2011) (For more information on attendance to maternal health services in Kenya, Coastal province and Kwale district consult Graphic 1, 2 and 3 in appendix).

(A) Factors linked to women and communities

1. De facto systems

a. Access: In Kenya only around 22% of the population lives in urban areas (78% of rural population) and Kenya's economy is predominantly agriculture (Roschanski H, 2007; UNDP). Agriculture is the main economic activity of Kwale and the distribution of rainfall is very unequal across the district which sets populations to be very susceptible to food crises, floods, droughts, etc (Roschanski H, 2007). In Kwale the poverty index is 63%, with estimated number of 657,139 persons living below the poverty line (Roschanski H, 2007) which causes the ability to pay for healthcare to be very low. In the district Women have a low social status and suffer lack of empowerment. Lack of security, low availability of public transport at night or other barriers may prevent mothers from seeking a facility delivery (Bellows B et al., 2012)

b. Quality: Still 70% of people in the district don't have access to improved health sanitation facilities and only 60% have access to improved water sources which undermine the conditions of homebirths and traditional birth attendant's services (Roschanski H, 2007).

2. De jure systems

a. Organizational structures: Semi-trained private providers, like traditional birth attendants, dominate the supply of health care in most rural and marginal urban areas (Gauri V, 2001). These providers often engage in agricultural or other activities part-time, and have limited contact with the formal, public health care system (Gauri V, 2001).

3. Dynamic Responses

a. Informal structures: Private providers utilize a mix of Western and indigenous medical concepts and make money purchasing and reselling drugs from local chemists (Gauri V, 2001). As these practitioners work by themselves and isolated from others, they avoid referring their patients to other colleagues or doctors or asking for their opinions. They are afraid of losing their patients, in case they should prefer the colleague or the doctor. (Gauri V, 2001)

b. Informal behaviours: Low attendance to health services and high level of home deliveries, with no kind of skilled birth assistance, still observed in Kenya, are also compromising the health outcomes (Ziraba AK, Madise N, & Mills S, 2009). Patients don't respect the referral system and go directly to emergency rooms and hospital outpatient centres (Gauri V, 2001).

c. Informal relationships: Patients are usually uninsured and pay providers informal out-of-pocket, resulting in substantial household outlays (Gauri V, 2001).

(B) Factors linked to the organization of maternal health care system

1. De facto systems

a. Access: In Kenya there is a national policy for charging maternal health services (See Table 16).

Table 16: The price of Maternal Health Services in Kenya

Source: International Centre For Reproductive Health, Kenya (ICRH) Data: 2012.

Service/ Items	Price in Kenyan shillings (Ksh)	Price in Euro (€)
1- Dispensary flat fee for service	10	0,1
2- Health Centre flat fee for service	20	0,2
3- Referral from primary health facility (distance dependent)	130/liter	1,2/liter
4- District Hospital		
Minor surgery	200	1,8
Major surgery including caesarean section	3600	32,7
Bed charges	100/ day	0,9/day
ANC card	20	0,2
Vaginal examination	50	0,5
Normal delivery	500	4,5
Removal of stitches	30	0,3
Injections	40- 60	0,4/0,6
Stitching	200	1,8
Minor dressing	50	0,5
Incision and drainage	200	1,8
Ultrasound	500	4,5
Nebulization	100	0,9
Common drugs	30	0,3
Special drugs/ Antibiotics	50-200	0,5-1,8
ANC/ FP/MCH services	Free	
HIV testing	Free	

b. Quality: Kwale district suffers from inadequate logistical support, inadequate staff with limited skills, rude equipment's and weaken supply of services (National Coordination Agency for Population and Development, 2005).

2. De jure systems

a. Organizational structures: The health expenditure per capita is less than US\$40, quite below the average of the WHO African Region, which is above US\$80 (Bellows B et al., 2012). There is a lack of wide spread third-party payment and of private hospitals, most having weak information systems for reporting treatment quantities and marginal costs (Gauri V, 2001). The public health system is organized in a classical health pyramid structure where six delivery levels can be found. The first-level of care, at the base of the pyramid, is provided at the community level, the second level comprises the dispensaries and the third level includes the health centres; the fourth, fifth and sixth levels, include respectively, district hospitals provincial hospitals and referral hospitals

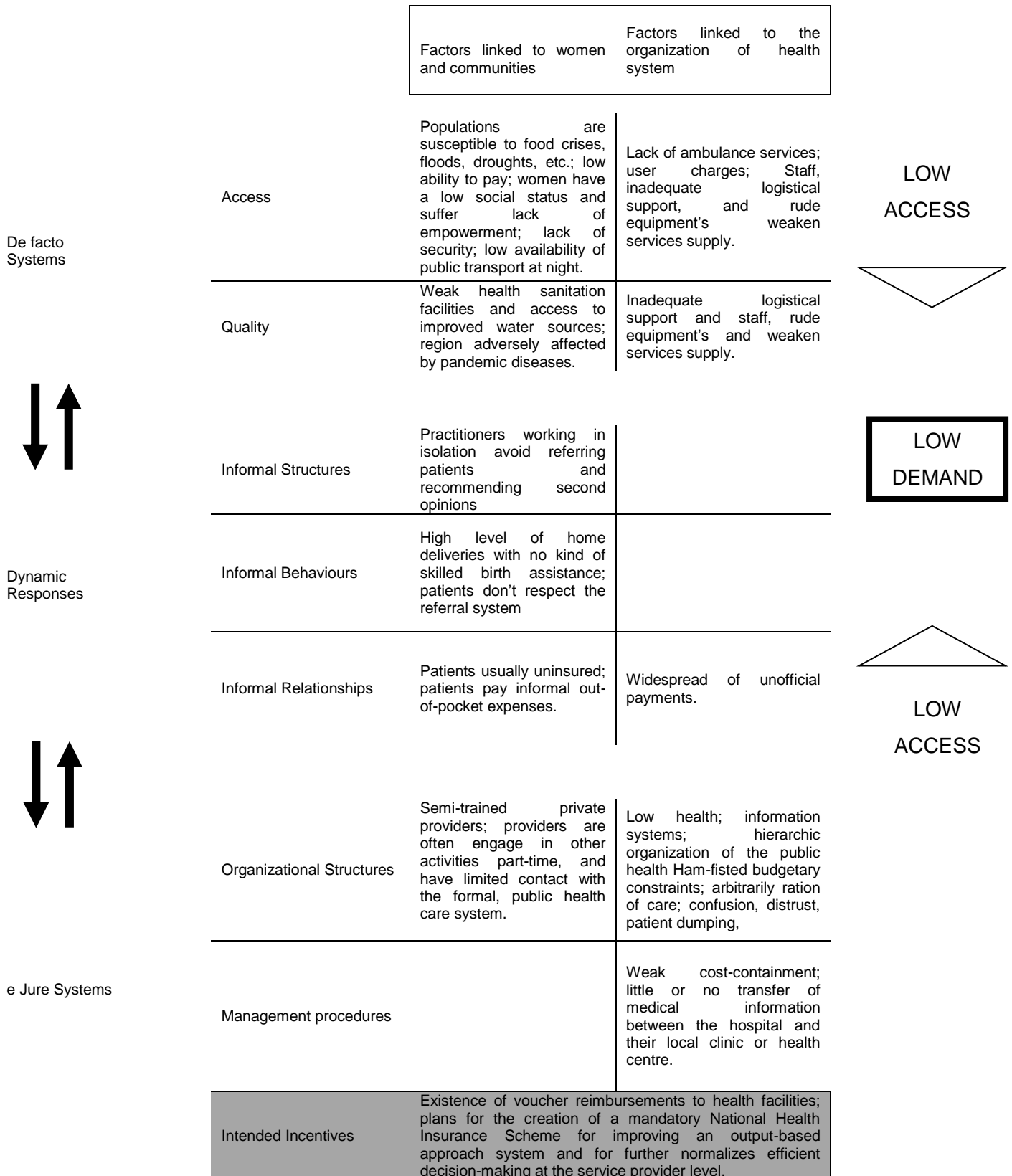
b. Management procedures: in this context cost-containment was easily achieved by shrinking the public sector health budget Budgetary caps are ham-fisted instruments that force facilities to ration care arbitrarily, creating confusion, distrust, patient dumping, and steadily eroding the credibility of government incentives for

providers (Gauri V, 2001). There is little or no transfer of medical information between the hospital and their local clinic or health centre (Gauri V, 2001).

c. Indented incentives: Authorities of the health care policies in the National Development Strategy, Vision 2030, Kenya called for the creation of a mandatory National Health Insurance Scheme, for the improvement of output-based approach system, and for the promotion of access to health care for disadvantaged groups in order to promote equity in Kenya's health care financing (Bellows B et al., 2012). Complementary public health sector reforms are underway in the Health Sector Services Fund (HSSF). They are intended to complement output-based voucher reimbursements to facilities and, furthermore, to normalize efficient decision-making at the service provider level (Bellows B et al., 2012).

d. Dynamic Responses: There is a wide spread of informal payments (Gauri V, 2001).

Figure 7: Dynamic Responsive Model: Barriers For Women Assessing Care In Kwale



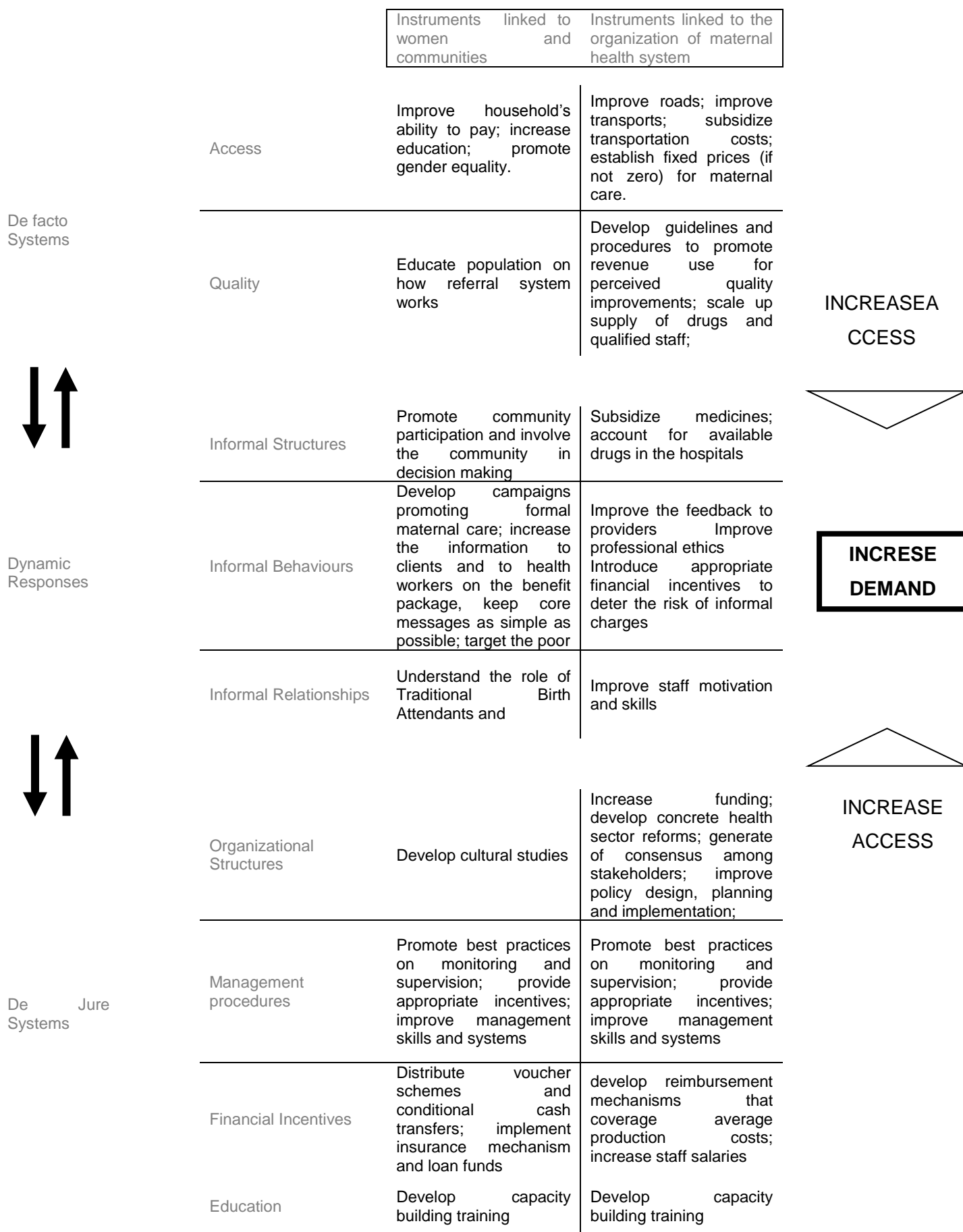
xiii. There is no perfect solution

A maternal health financing mechanism will never solve all the problems in the roots of a low demand and a fragile supply of formal maternal health care in rural Sub-Saharan Africa and the search for a perfect, unique and holistic solution should not guide any investigation. Caution is therefore required not to fall into theoretical traps that threaten realistic and, above all, effective approaches.

It is also difficult to assess whether or not a single financing mechanism is pro-poor. Improving maternal health in low income settings depends on a complete mix of solution in which financing mechanisms and their interaction with resource allocation approaches and organisational contexts must be considered (Bennett S & Gilson L, 2000).

Finally ,based on the previously presented model and in the typology of recommendation created before, it was possible to design a scheme to accede to the available types of financing mechanisms, enabling their interaction with *De facto* systems, with *De Jure* Systems and with the dynamic responses of rural women and communities in Sub-Saharan African (See Figure 8).

Figure 8 Mix of financing mechanisms for improving women assessing maternal health care in Sub-Saharan Africa



xiv. Project proposal

Ultimately from this thesis results a proposal for a project in the field for undertake a future deeper exploration of the theme here developed.

**The influence of price in the demand for maternal healthcare among
different rural Sub-Saharan cultural settings**

Problem addressed: Although we can expect a negative correlation between price and demand for formal maternal care, few studies have done a systematic analysis to measure the effective impact on demand of changes in the costs of formal maternal care. And there are even fewer studies where this analysis is done in respect to the influence of cultural factors on women's responses to these changes, particularly in low income settings.

Proposed solution: Undertake a case study that fills this gap and explains how price influences the demand for formal maternal healthcare in different cultural settings in low income regions.

Location: This project was design to be undertaken in low income settings. Yet, this proposal shows how it could be developed in the field, taking Kwale District in Kenya, as an example.

Development objective: Increase efficiency and effectiveness in the choice of financial mechanisms that increase the demand for maternal healthcare in low income settings.

Immediate Objectives: (1) Understand if a price decrease leads women to significantly consume more formal maternal health care; (2) Understand how big is the difference (in terms of utilization) between setting a zero price from paying women to consume formal maternal healthcare; (3) determine how women from different cultural backgrounds, living in the same area, react to changes in the price of formal maternal healthcare; (4) conclude if different maternal healthcare services have different demand price elasticities⁴.

⁴ This project could be implemented for a comprehensive package of maternal health services or it could focus on a specific momentum like antenatal care, intra-partum or postpartum period. The evaluation of postpartum maternal care

Table 17 Project Hypothesis and outcomes

Hypothesis	Outcomes
[H0] ($S_{1/2}$) had no substantial impact on the utilization of formal maternal care consumption what is $s_{1/2}$? [H1] ($S_{1/2}$) had a positive impact on the utilization of formal maternal care	Impact of price on the utilization of formal maternal care
[H0] ($S_{1/2}$) had no substantial impact in the demand for other goods and services 3[H1] ($S_{1/2}$) had a positive impact on the utilization and on the demand for other goods and services	Impact of decreasing price in the demand for other goods and services
[H0] Different groups have similar price elasticity [H1] Different groups have different price elasticity	Price elasticity of different groups
[H0] Different formal maternal healthcare services have similar price elasticity [H1] Different formal maternal healthcare services have different price elasticity	Price elasticity of different formal maternal health services
[H0] The impact on demand of setting a zero price is not significantly different than the impact of offering payments to women [H1] The impact on demand of setting a zero price is significantly different than the impact of offering payments to women [H1.a] The impact in demand of setting a zero price is bigger than the impact of offering payments to women [H1.b] The impact in demand of setting a zero price is bigger than the impact of offering payments to women	Impact of different demand side financing mechanisms in the demand for formal maternal healthcare of rural Sub-Saharan women

Expected Results: (1) General assessment on the influence of price in the demand for maternal healthcare in the analysed setting; (2) Assessment on the effect of a decrease in price in the demand for other goods and services; (3) Assessment of the influence of cultural factors in the demand price elasticity of poor women; (3) Improved comprehension on the impact of two different demand side financing mechanisms in the demand for maternal healthcare in low income settings; (4) Assessment on the demand price elasticity of different formal maternal healthcare services.

Projects beneficiaries: Research community; populations that directly receive improved maternal healthcare services in low income settings.

Project Work plan: Project working plan can be seen in the following table.

Table 18 Project Working Plan

Phase		Procedure	Methodology
Preparation	1	Access the potential effects of price in the demand for maternal health care	Literature Review
	2	Identify: 1) A set of cultural variables that is most likely to influence the demand for maternal care 2) A set of cultural group profiles in Kwale district	Qualitative Research; Literature review
	3	Explore the most feasible mechanisms for 1) Simulating a situation where maternal healthcare services are given for free (S_1) 2) Simulating a situation where maternal healthcare services are given for free and women receive extra financial	Qualitative Research

could be a particularly interesting option since few studies focus on this period and there is a growing evidence of the impact of postpartum interventions on maternal and neonatal outcomes.

		incentives if they consume (S_2)	
	4	Choose two different groups among those cultural group profiles to participate in the case study (for example one group of Akamba people and another of Durumba people)	
Implementation	5	Characterize the actual situation (S_0), assessing for the two groups: 1) The patterns of formal maternal care utilization 2) The consumption patterns of other goods and services	Cross-sectional Study
	6	Implement (S_1)	
	7	Evaluate the effect of exposing the two groups to a zero price on utilization of formal maternal care consumption on the demand for other goods and services consumptions	Cohort Study
	8	Assess how differently the two groups react to (S_1) (measure the price elasticity of each group)	Cross-sectional Study
	9	Implement (S_2) and follow the same procedure	

xv. Strengths and limitations of thesis

a) Strengths

- The method adopted to store data ensured efficient and consistent articulation of information;
- The systematic method adopted for classifying and organizing articles led me to a clear scheme of patterns and recommendations that *per se* resulted in an innovative and comprehensive model of analysis of the effect of cultural barriers on the demand for formal maternal healthcare in rural Sub-Saharan Regions. And not only is demonstrated how the suggested model could be used to study specific contexts through a practical example; as it is explained the value of such kind of approaches for studding the potential mixes of mechanisms of financing maternal health care in low income settings.
- While most of the studies produce sets of recommendations adapted to a specific financial mechanism, this study was able to gather recommendations from all different schemes and to produce a unique typology.
- The presented thesis also resulted into a project proposal in the field developed for a deeper future exploration on the impact of financial mechanisms in the demand for maternal healthcare in rural settings of Sub-Saharan Africa.
- Finally from undertaking this research I learned how to approach a similar study in the future.

b) Limitations

- As a novice researcher my approach to the identification, critique and bringing together of the literature may not have been as thorough as that of more experienced researchers;
- Time limitations did not allow me to explore the available literature more extensively;
- Resource restrictions narrowed the thesis to a theoretical discussion, which would have benefited from experience in the field.

IX. CONCLUSION

If exemptions and waiver systems were effective, if providers were adequately compensated for the revenue forgone, if there was no corruption, if revenue collected from user fees could contribute significantly to improving the quality of healthcare and to motivating staff and increasing hospital's supplies, if governments were more collaborative and if management practices were better, perhaps user fees could promote a higher demand for maternal health care in rural Sub-Saharan Africa. Yet, these ifs are far from being met and from matching with reality, at least not with the current reality in most of (Sub-Saharan or Low Income) countries. The implementation of user fees was developed as a mechanism for limiting excess demand. However there is little evidence that it works in contexts where demand is scarce without harming equity. In this thesis, we have shown that user fees can be harmful in a context where women are very poor and where services have suboptimal levels of consumption.

The right questions must be raised in order to find effective solutions for improving women's health conditions and their household lives. The first question to ask is what can work in order to promote a higher demand for qualified healthcare. Alternatives to out-of-pocket expenses must be considered. Demand side approaches like voucher schemes, community insurance, cash transfers and loan funds, as well as options like universal coverage and social health insurance exist. Also remodelling a further set of available and interrelated tools – by improving management skills, refining information systems, adopting anti-corruption measures, investing in project design, and promoting community participation in decision making processes – should favour women's access to maternal healthcare in Sub-Saharan Africa.

However, all these tools may fail if context is not taken into account. The search for the right solution has to be preceded by a comprehensive analysis of the context and an identification of the problem. It is necessary to understand the cause for the lack of demand for maternal healthcare and keep in mind that the reasons for the arousal of the problem may be different from community to community.

This thesis is expected to have contributed to this very precise point, both describing some strategies for the assessment to the community, the identification of the problem and its analysis, and proposing some strategic solutions for the benefit of women and the maternal healthcare in rural Sub-Saharan Africa.

Moreover, new avenues must be explored in order to clear some issues, such as the role of price and culture together regarding the consumption of formal maternal

health services in low income settings. It is not clear how the introduction of negative or zero prices in maternal healthcare influences women's consumption of other goods and services; and it is not clear if demand elasticity varies across different maternal healthcare services and across cultures. These aspects will be explored in further studies.

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XI. APPENDIX

Table 5: Classification of household costs by place of delivery

Source: (Borghi J, 2008)

Type of cost	Delivery in a Health Facility	Delivery at Home
Facility-based fees	Registration, delivery fee, bed charge, laboratory tests, laundry, food, drugs and medical supplies for mother and newborn. Surgical charges in the case of complicated delivery.	Not applicable
Additional charges	Gifts to staff and medicines and other items purchased by patients together with the value of food and washing materials brought in from outside the facility.	Gifts to attendant and medicines, food and washing materials and a safe delivery kit where relevant.
Transport fees	To and from the facility for mother and newborn.	Not applicable
Opportunity cost of time	Valuation of the time of those accompanying the woman to the facility.	Assumed to be zero since attendants can generally continue with other activities.

Source: Borghi *et al.* (2006b)

Table 6: Expenditures incurred by households giving birth in a government hospital (in USD)

Source: (Borghi J, 2008)

Country (year of costs)	Type of facility	Financing system	Source	Normal Delivery				Delivery-Related Complications			
				Trans- port costs	Drugs	Other facility charges	Total cost	Trans- port costs	Drugs	Other faci- lity char- ges	Total cost
Benin (2002)	1 urban teaching hospital	General taxation plus user and unofficial fees	Borghi <i>et al.</i> 2003	1.88	21.12	25.93	49.16	2.23	53.26	179.03	246.37
Ghana (2002)	1 urban teaching hospital	General taxation plus user and unofficial fees		2.35	9.27	15.13	27.92	3.75	66.64	70.98	154.39
Ghana (2004)	Unspeci- fied health facility/ hospital		Asante <i>et al.</i> (2007)	-	-	16.88	42.09	-	-	155.02	195.00
Tanzania (1997)	1 urban hospital	General taxation, official exemptions for MCH care	Kowales- ki <i>et al.</i> 2002	6.98**	3.86		10.84	6.98**	4.86	2.49	14.33
Bangla- desh (2002)	1 rural hospital	General taxation plus user fees and unofficial charges	Borghi <i>et al.</i> 2006a	-	-	-	-	2.54	141.24	37.64	181.42
Bangla- desh (2001)	2 rural hospitals		Afsana 2004	9.87	7.90	13.81	31.58	39.46	197.32	157.86	394.66
Bangla- desh (1995)	4 urban hospitals		Nahar & Costello, 1998	8.57	16.28	17.20	42.05	25.71	84.83	44.36	154.90
Bangla- desh (1994)	1 urban teaching hospital		Khan 2005	40.20	24.82	20.24	85.26	59.94	85.91	34.71	180.56
Nepal (2003)	8 rural hospitals	General taxation plus user fees	Borghi <i>et al.</i> 2006b	37.22	26.90		64.12	37.22	92.24		129.46
Burkina Faso (1995)*	12 referral hospitals	General taxation plus user fees	Sondo <i>et al.</i> 1997	-	-	-	-	24.23	37.69	20.20	82.11
Pakistan (1994 Pakistani Rupees)	3 urban hospitals	General taxation plus nominal user charges in facilities, and unofficial payments for drugs and medical supplies	Kadir <i>et al.</i> 2000	-	4.07- 7.49	7.22- 13.36	11.29- 20.84	-	48.00	24.75	72.75

* Assuming 490 FCFA to the Dollar in 1995

**Assume one companion

Table 15. Typology of recommendations by issues addressed

Issues addressed	Source	Recommendations	
Target the Poor/Equity	(Bennett S & Gilson L, 2000; Gilson L, 1997; Loveday Penn-Kekanaa, 2007; Sophie Witter, 2008)	Implementation of functional targeting mechanisms, in articulation with local communities, which produces realistic measurements of household resources available for maternal care; distinguishes poor from the non-poor; is feasible to implement at the local level; considers the impact on poor women and households of the total mix of financing mechanism and favours relatively under sourced geographical areas.	
Corruption	(Bennett S & Gilson L, 2000; Borghi et al., 2006; Gilson L, 1997; Loveday Penn-Kekanaa, 2007; Richard F et al., 2011; Sophie Witter, 2008)	Improve professional ethics; avoid the capture of exemptions by non-poor groups such as civil servants; introduce appropriate financial incentives to deter the risk of informal charges.	
Quality	(Abuya T et al., 2012; Gilson L, 1997; Ir P et al., 2010)	Ensure revenues retained at the point of collection are used in quality improvements; develop guidelines; ensure the supply of sufficient quality maternity services.	
Coordination/Referral	(Gilson L, 1997; IDS, 2012)	Coordinate the price structure across health system levels; ensure communities understand the functional differences between a hospital and a clinic.	
Community	(Bennett S & Gilson L, 2000; Chiwuzie J et al., 1997; Fofana P et al., 1997; Gilson L, 1997; Lagarde M et al., 2009; Lim S et al., 2010; Loveday Penn-Kekanaa, 2007; Sophie Witter, 2008; Vinod P, 2010)	Involve the community in decision making	Encourage broader consultation with groups such as non-governmental organisations and religious organisations; consider how complementary players can be involved in the policy making; build community consensus.
		Improve mechanisms design	Develop community management mechanisms at a primary level which ensure accountability; encourage exemption screening to take place close to the household in the community or local health care facility through mechanisms that involve both community members and health workers and by individuals trained for the task; develop periodic community-based surveys.
		Develop capacity building	Develop capacity building actions within the community to improve community participation and build strong community leadership capable of substantial mobilization of efforts
Staff	(Borghi et al., 2006; Gilson L, 1997; Richard F et al., 2011)	Implement an effective reward and discipline system for health staff, including training; Introduce appropriate financial incentives to ensuring sufficient staff	
Drugs	(Borghi et al., 2006; Gilson L, 1997; Richard F et al., 2011)	Develop effective drug procurement and supply system; Increase government funding to avoid the risk of shortages of drugs and medical supplies	
Management	(Bennett S & Gilson L, 2000; Bennett S et al., 1998; Borghi et al., 2006; Ensor T & Ronoh J, 2005; Gnawali D et al., 2009; Lagarde M et al., 2009; Lim S et al., 2010; Loveday Penn-Kekanaa, 2007; Richard F et al., 2011; Sophie Witter, 2008; Vinod P, 2010)	Improve management skills and systems	Develop skills and systems to enable decentralization; develop systems which allow monitoring by providing data; Provide training; Capacitate local programme managers to continuously make programme-improving adjustments.
		Provide appropriate incentives	Introduce appropriate financial incentives to ensure infrastructural capacity to manage increased demand and to counteract over-medicalization.
		Promote best practices in monitoring and supervision	Develop effective management and clinical supervision; clear lines of responsibility; preserve continued, periodic and independent monitoring and evaluations against guidelines; develop effective audit procedures and activities of record-keeping; documented. learning lessons
Information/Communication	(Abuya T et al., 2012; Bennett S & Gilson L, 2000; Gilson L, 1997; Ir P et al., 2010; Loveday Penn-Kekanaa, 2007; Sophie Witter, 2008)	Increase the information to clients and to health worker; keep core messages; improve the feedback to providers; ensure the price structure is advertised	
Funding	Guaranty minimum injections of financial resources for ensuring sufficient staff, an effective reward and discipline system of health personnel, and an effective drug procurement and supply system; increase donor and governmental investments		
Policy Framework	(Bennett S & Gilson L, 2000; Bennett S et al., 1998; Borghi et al., 2006; Chiwuzie J et al., 1997; Ensor T & Ronoh J, 2005; Fofana P et al., 1997; Gnawali D et al., 2009; Lim S et al., 2010; Loveday Penn-Kekanaa, 2007; Ranson K et al., 2010; Richard F et al., 2011; Sophie Witter, 2008)	Political spectrum: Include stewardship and look for opportunities to utilize existing platforms to scale up such strategies; concede funding; provide regulatory and policy frameworks for the various forms of financing; give "advice" more circumspectly	
		Health sector reforms:	Develop institutional capacity; increase transparency and predictability; develop a supportive legal framework.
		Consensus generation	Ensure all key stakeholders are consulted and involved in development of the policy; promote strong partnership between the public and private entities and wider institutional support; ensure that the exemption system is given high priority; engage with potential 'champions'; involve implementers in designing policies.
		Policy Design	Develop complementary risk-sharing financing mechanisms; guarantee that policy is consistent with the wider policy environment and thinking in government; ensure clear policy guidelines; ensure programmes are defined locally in space and time.
		Capacity Building	Provide detailed implementation plan and orientation training for implementers; develop technical skills for the designing of pro-poor financing reforms; draw technicians; develop adequate leadership and advocacy skills within the health sector.
		Research development	Develop thorough situation analysis of the main barriers to increasing skilled delivery; document and share country experiences, develop evaluative research.
		Planning:	Develop good prior estimates of financial and other resources needed; willingness to enforce the policy by frontline staff, and to ensure good implementation; invest in scheme design; carefully phase financing reforms.
Reimbursements	(Bennett S & Gilson L, 2000)	Ensure a payment mechanisms should ensure that average production costs and that those payments to facilities are made in advance, based on predicted caseload, and adjusted periodically, on reports, or paid retrospectively but frequently.	
Demand side approaches	(Bennett S & Gilson L, 2000; Borghi et al., 2006; Ensor T & Ronoh J, 2005).		additional demand-side investments, such as in transport funds

Graphic 1: Antenatal Care first and 4th visit

Source: International Centre For Reproductive Health, Kenya (ICRH)

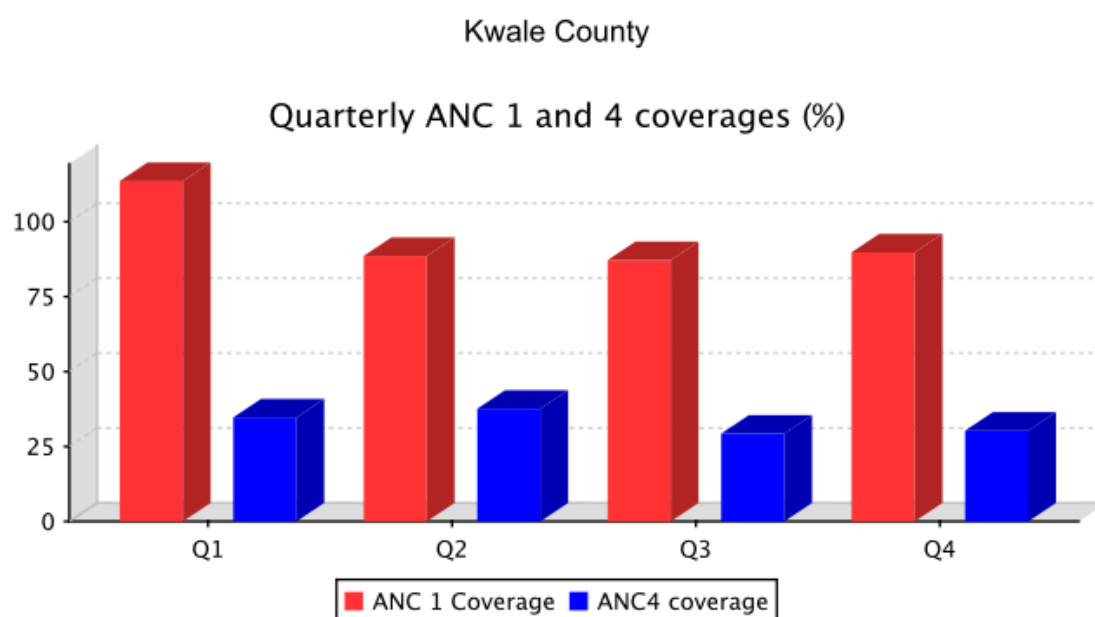
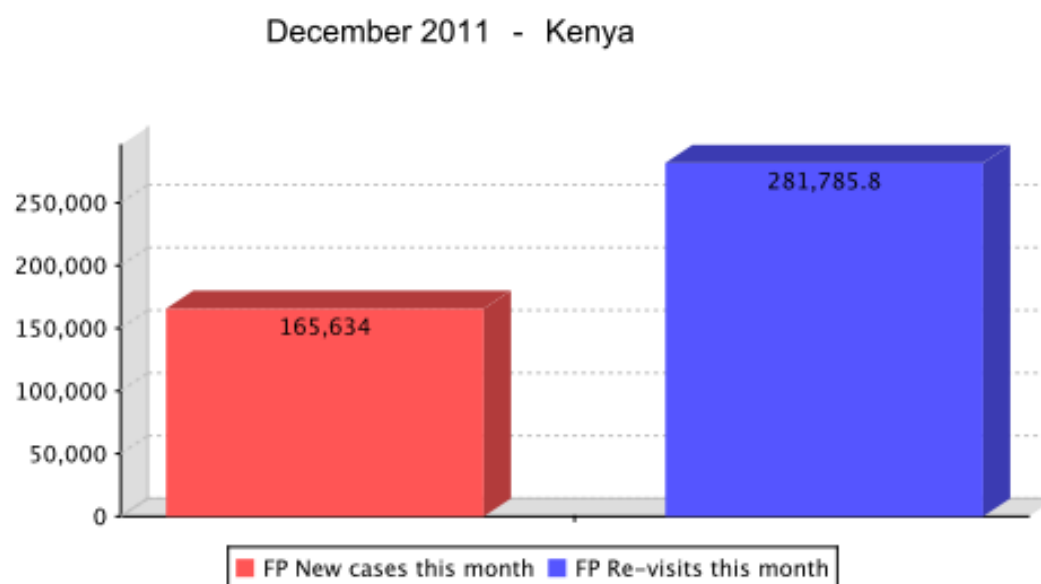


TABLE: ANC 1st and 4th visit (numbers and coverages)

December 2011				
Organisation unit	1st visit (#)	1st visit (%)	4th visit (#)	4th visit (%)
Msambweni	805	79.9	295	29.3
Kwale	545	107.7	232	45.8
Kinango	698	83.1	198	23.6
Kwale County	2048	87.0	725	30.8

Graphic 2: Family Planning Attendance in Kenya and Coastal province

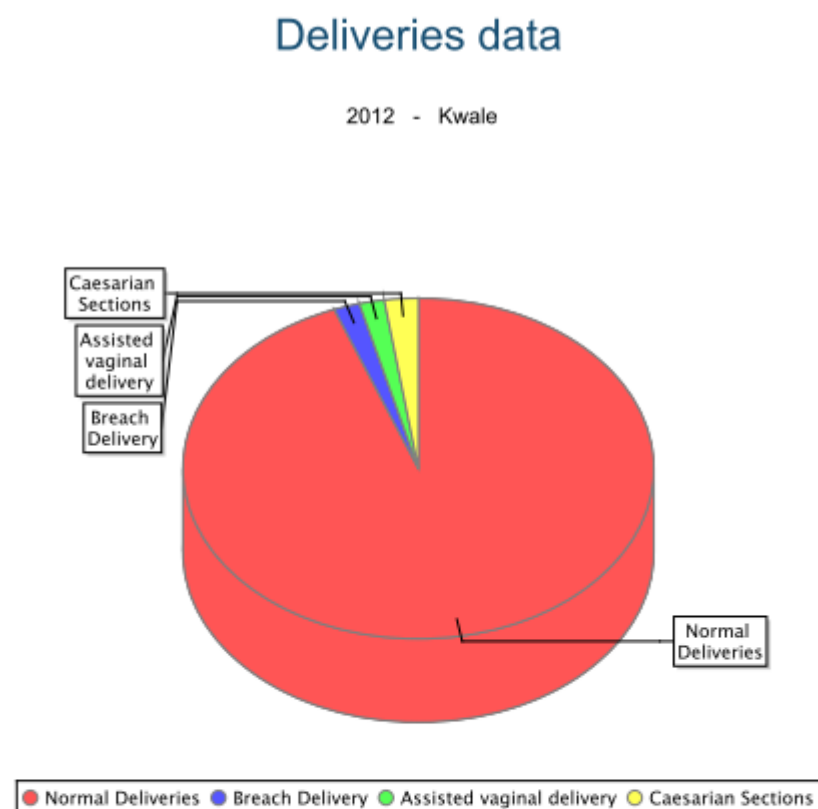
Source: International Centre For Reproductive Health, Kenya (ICRH)



Organisation unit	Reporting Month		Year	
	New cases	Revisits	New cases	Revisits
Western	15211	27364	176536	294969
Nyanza	24462	39771	283460	452263
Rift Valley	38541	56009	481612	653395
North Eastern	1638	911	12224	10967
Nairobi	38003	33314	189985	271757
Coast	10349	24204	126306	292263
Eastern	19365	55090	241069	604041
Central	18065	45123	187869	512437
Kenya	165634	281786	1699061	3092092

Graphic 3: Number of Deliveries in Kwale Country

Source: International Centre For Reproductive Health, Kenya (ICRH)



Data element	Value
Normal Deliveries	1751
Breach Delivery	33
Assisted vaginal delivery	32
Caesarian Sections	43