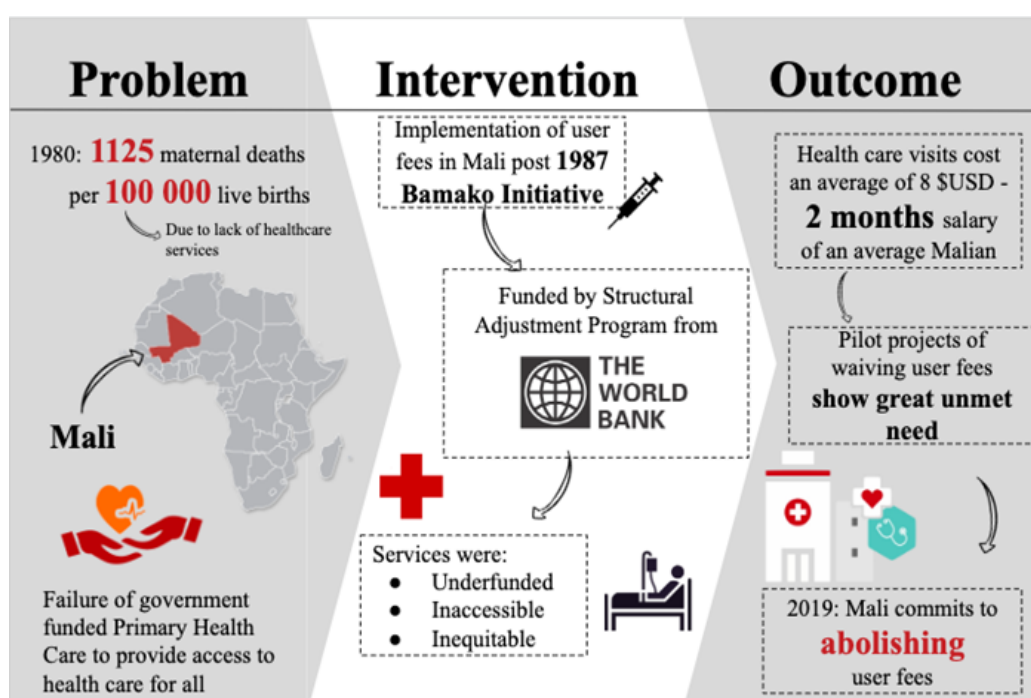


The Failure of User Fees: The Outcome of the Bamako Initiative in Mali

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ABSTRACT

The end of health care user fees is within sight for an increasing number of African countries whom this policy was imposed upon in the late 1980 and early 1990s. User fees were part of structural adjustment programs (SAPs) dictated to developing countries by the World Bank, influenced by the Bamako Initiative. The West African country of Mali is presently working towards eliminating user fees and implementing Universal Health Care (UHC). This paper investigates health indicators of pregnant women in Mali during user fee implementation to show the negative impact of the policy, and extrapolates to future outcomes when UHC is available. For example, when user fees were removed in pilot projects, Caesarean costs decreased from 95-136 \$USD to 0.80-10 \$USD, and Caesarean rates increased by a factor of 2.5. As well, with user fees, Malian citizens had to pay an average of 2 months of salary per health care visit, severely limiting those who could access services. These numbers show that vulnerable individuals in Mali, such as expecting mothers, likely experience unmet need for healthcare services in Mali, and the current user fees system is insufficient and inequitable.



Introduction

This paper seeks to evaluate whether the period of user fees in Mali was able to provide adequate health care—in terms of the goals of costs, accessibility, and quality for maternal health. Since Mali's journey to phasing out user fees is fairly recent, we reviewed pilot projects of user fee exemption to predict outcomes of user fees abolition, and compared these numbers to the timeframe when user fees were in place. Table 1 provides a summary of the comparisons.

It is important to note that the private health care sector accounts for 40-50% of health care services in Mali (1). The most inequities appear to be within the private health sector, with most private institutions located in cities; mainly in Bamako (1). Our evaluation focused on the public sector, since a comprehensive understanding of

Mali's public health system is required before moving towards the international goal of universal health care (UHC). However, this limits this paper's ability to conclusively evaluate the entire health care system of Mali.

Background History

In 1978, the International Conference on Primary Health Care, hosted in Alma Ata, aimed to make Primary Health Care (PHC) the foundation of low- and middle-income countries' (LMIC) public health care systems in order to improve health services in impoverished communities. However, severe underfunding lead to low quality services and a lack of supplies, including drug shortages (2). Meanwhile, budget allocations to health care resources had decreased due to debt repayment issues,

Table 1: Summary of impact evaluation (with and without user fees) in Mali. The cost, availability, and quality of various indicators were compared during the period of user fees and as Mali has begun moving towards UHC.

	Indicator Assessed	During Period of User Fees		Towards UHC
Costs	Cost compared to per capita income	8 \$USD (2 months of wage) per illness episode in 2005		Unknown
	Caesarean Cost (not including additional treatment costs)	FCFA 47,400 - FCFA 68,000 (Approximately US \$95-136) Prior to January 2005		FCFA 400 and FCFA 4,800 (Approximately US \$0.8-10) After January 2005
Accessibility	Consultation Rates for malaria treatment (MSF Malaria project)	0.1% consultation for pregnant women 2005-2006		1.0% curative consultation for pregnant women 2007
	Caesarean Rates	0.5% Caesarean rates (USAID report for Mali MOH) 2005		2.3% Caesarean rates (USAID report for Mali MOH) 2009
Quality	Skilled Birth Attendant	40.6% Total	70% Total	67.3% Total
		1.5% deliveries by physicians 39.1% midwives/nurses 2001 (EDSM-III)	1.4% physicians 36% midwives/nurses 33% matrons 2006 (EDSM-IV)	6% physicians 40% midwives/nurses 22% matrons 2018 (EDSM-VI)

(Table legend: FCFA=Franc CFA. MOH=Ministry of health. EDSM=Enquête Démographique et de Santé or in English, DHS=Demographic and Health Surveys)

declines in commodity prices, natural and man-made disasters, political unrest, and military spending (2).

By the mid-1980s, many governments in African LMIC had determined that the implementation of government funded PHC was unrealistic. Meanwhile, countries faced overwhelming pressure to achieve financial sustainability in their health sectors. World Bank health economists began to embrace neoliberal economic principles, transforming the predominant understanding of health policy internationally (3). In 1987, African health ministers met in Bamako, Mali, during the 37th WHO regional meeting to examine issues facing the financing of PHC (4). From this meeting, the Bamako Initiative was developed. It was comprised of four main components:

1. The reconstruction of the health care delivery system;
2. Increase in the availability and affordability of essential drugs;
3. Creation of long-term sustainability through financing of basic health care services;
4. Increase in community mobilization for financial support and management of community-based health services (4).

In theory, the Bamako Initiative had several good principles, including decentralization of health systems as opposed to taking a vertical and project dependent approach (5). It also attempted to address the lack of

drugs available at health centres by proposing the creation of a revolving drug fund, which would sell essential drugs at a slight markup from wholesale prices in order to prevent shortages (6, 7). However, the third component, which implicated user fees, was to lead to policy failure.

Since the 1980s, multilaterals such as the International Monetary Fund (IMF) and the World Bank had been supplying loans for LMICs with “stringent conditions,” such as withdrawals of food subsidies, trade liberalization, and reduction in government expenditure in social sectors (8, 9). These conditional loans were called Structural Adjustment Programs (SAPs), and were meant to kickstart indebted LMICs’ economies through the implementation of austerity measures and reliance on the market to provide previously government-funded services. However, many of the countries receiving these types of loans already had low levels of human capital investment in sectors such as education and health (9). The Bamako Initiative, with its promise of relieving governments of financing the health sector, was supported by the IMF and World Bank. These policies forced the implementation of cost recovery strategies, such as creating and increasing user fees (9).

User fees were predicted to improve the health care system on various levels by increasing: cost-effectiveness, availability

in terms of allocative efficiency and equity, and quality of services (10). The argument for cost-effectiveness was made on the basis of several earlier cost-recovery experiments which showed there was relative price inelasticity for health care, suggesting increases in the cost of services would not significantly decrease the use of these services, and people were “ready to pay” for services (5, 10). However, these failed to take into account the ability to pay of the entire population, including those most vulnerable. In terms of allocative efficiency, preventing the overutilization of free services would ensure that those with highest need would have access to basic health services (10). In terms of equity, by having communities in charge of the funds, services would be more aligned with the needs of the community served. Measures such as fee exemptions were to be put into place to ensure the poorest people would also be able to access health services. However, it was to be the responsibility of individual communities, not the government, to ensure mechanisms to protect the most vulnerable were actually put in place (4). Lastly, with the increased revenue from fees, and monetary incentives for caregivers, quality in the health care provided was predicted to improve.

Review of user fees in other countries

Charging user fees for health services in African countries was not limited to Mali in the 1980s and 1990s. Several countries,

such as Kenya and Tanzania, provided government-funded free health care, although later decided to move to a user-fee system. By the late 1990s, one study found that 28 out of 37 surveyed African nations had begun to move away from ideas of UHC instead opting to implement some form of user fees at government health facilities (11).

In general, user fees negatively impacted the health systems they were implemented in. The World Bank report on cost recovery in Sub-Saharan Africa showed countries with user fees experienced drops in utilization when fees were introduced or increased, as well as changes in the quality of care, with variable and infrequent protective measures to ensure the poorest could access health care (9). Finally, very low amounts of revenue were shown to be generated from user fees (9).

Problem Statement

Even prior to the implementation of user fees in the mid-1980s, health care in Mali was lacking on many fronts, with services being overcrowded, underfunded and scarce in resources. These issues particularly affected already vulnerable groups of the population, such as expecting mothers(12). For example, in 1980 the maternal mortality ratio in Mali was one of the highest worldwide: Mali recorded 1,125 maternal deaths per 100,000 live births, compared to 7 in Canada (13). The Bamako

Initiative proposed the implementation of user fees with the hope of increasing revenue and improving the quality and quantity of offered health services (14). In 1989, Mali implemented a new policy including user fees based on the Bamako Initiative while under pressure from the World Bank (5), which led to negative impacts on the most vulnerable in the population and decreased both the sustainability and equity of the healthcare system (32, 33, 34).

Implementation

The widespread implementation of user fees in Africa occurred following the 1987 Bamako Initiative (4). Mali finalized and submitted the project to the national government at the end of 1989. The new policy was formulated under the name “Health, Population, and Rural Water Project” (HPRWP), which was to be sustained through the implementation of user fees (5). A loan between the government of Mali and the World Bank was agreed upon on May 3, 1991 (5).

Mali adapted guidelines from UNICEF and WHO to fit the demands of the World Bank’s loan, and streamlined and decentralized their health system (4). Before, the system had been made up of non-uniform entities such as maternity units, village health teams, and subdistrict level dispensaries. The heterogeneity and project-dependent nature of the antecedent system meant less reporting transparency

policy included the creation and expansion of Community Health Centres and District Health Centres which provided basic health services and referrals to secondary and tertiary care. Regional and national levels were responsible for defining policy, planning, and coordinating funding (5).

Financing

Mali received its largest funding for the implementation of the HPRWP from the World Bank, with a loan of \$29,760,000 USD, with several other multilaterals committing funding as well (5). However, the actual release of the funds did not occur until months or even years later, as each organization followed its own internal disbursement guidelines. (5) (Table 2). This made implementation of the program challenging, and stalled progress.

Before the implementation of the HPRWP, cost recovery already existed in the health system and accounted for about 50% of recurrent expenditures. However, only 2% came from user fees, with the remaining 48% from overpriced drugs from the People’s Pharmacy of Mali (5). The new system increased or created user fees for all health services. Patients were additionally responsible for covering the cost of prescribed drugs, which were purchased at slightly elevated prices as compared to wholesale (7). The revenues from drugs sold went towards ensuring a constant drug supply, called a revolving drug fund (7).

Table 2: Chronology of financing by the partners of the HPRWP. Adapted from Maiga et al., 2003: “Health Sector Reform in Mali, 1989-1996”. The schedule of commitments (C), financial agreements (A) and release of funds (shaded) for Mali’s HPRWP by World Bank, UNICEF (United Nations Children’s Fund), USAID (United States Agency for International Development), KFW (German Development Bank), EDF (European Development Fund) and Fonds d’Aide et de Coopération (5).

	1990			1991			1992			1993			1994		
Mali Government	C			A											
World Bank - US\$ 29,760,000		C					A								
UNICEF - US\$ 15,398,000		C								A					
USAID - US\$ 15,000,000		C			A										
KFW - US\$ 8,970,000		C							A						
EDF - US\$ 13,081,600			C									A			
Fonds d’Aide et de Coopération - US\$ 1,700,300															

Impact Evaluation

1. Costs

1.1 Cost compared to Income. When user fees were rolled out in 1991, Mali’s gross domestic product per capita (GDP per capita) was 315.46\$ in current USD (16). By 2003, the GDP per capita had only increased to 488.83 \$USD (to compare, in the same time frame the USA experienced per capita growth from 24,342.26 \$USD to 39,496.49 \$USD) (16). The increase in GDP per capita was low, and insufficient to cover basic health care costs. Additionally, Mali had and continues to have extreme wealth inequality, scoring a Gini coefficient of 39 in 2006 (17). In order to assess the average cost of user fees compared with income, Médecins sans Frontières (MSF) carried out a survey of 930 households in 2005 in rural Mali.

In the area assessed, average income per person per day was 0.12 \$USD, and an average illness episode would cost 8.00 \$USD – the equivalent of 2 months of labour (18).

1.2 Caesarean Cost. To assess the changes in cost as Mali moves to UHC, the Free Caesarean Policy was used as an indicator. In 2005, Mali implemented user fee exemption policies for caesareans, as a strategy to combat high maternal mortality ratio (19). The policy exempted “direct costs of the caesarean procedure, including preoperative examinations, provision of a caesarean kit (drugs and surgical supplies), surgery, post-operative treatment, hospitalization and laboratory tests.” (20). Prior to the Free Caesarean Policy, the direct cost for a caesarean was between FCFA 47,400 and

FCFA 68,000 (Approximately 95-136 \$USD) (21). The patient or community also had to contribute to excess fees as well as transportation costs for referrals (22), creating an additional burden for rural women (19).

After the policy change, the price for a caesarean was reduced to between FCFA 400 and FCFA 4,800 (Approximately 0.80-10 \$USD) (21). However, since government contribution only consisted of materials required for the caesarean procedure itself and “any immediate post-intervention complications” (19, 22), this meant that the mothers had to pay around 59,241 FCFA (126 \$USD) of excess fees for treatments including transfusion, antibiotics, and antihypertensive medications post-caesarean (19). The additional costs due to transportation were also still incurred, since they were not reimbursed by the policy. While the overall price for a Caesarean was significantly decreased after the direct cost of the operation was removed, the remaining excess fees may have contributed to the drop shown in Figure 1.

2. Accessibility

2. 1. Health-seeking behavior. To assess how user fees would impact service utilization, the MSF malaria project is used as our indicator. In 2005, MSF offered rapid diagnostic tests (RDT) and artemisinin-based combination therapy (ACT) for 0.17 \$USD for everyone in Kangaba Circle, Mali (18).

This intervention, referred to as the MSF malaria project, was a subsidization for treatment—but crucially was not a complete removal of user fees. The subsidized treatments resulted in only around 0.1-0.2% of the population accessing consultations (18).

In December of 2006, the MSF malaria project expanded to “[provide] free care for children under five with any disease and for pregnant women with any case of fever” (18). This meant a complete removal of user fees and free treatment for the people fitting this criterion. This resulted in five times more malarial treatment for pregnant women and more curative consultations (18). By 2007, the consultation rates had increased to almost 1.0% (18).

2. 2 Frequency of service utilization

To assess the frequency of service utilization and availability of services, the Free Caesarean Policy is used again as an indicator. During the years 1995 to 2001, around 1.1% of deliveries were by caesarean section (23). In 2005, the start of the Free Caesarean Policy, 1.6% deliveries required caesareans (24).

By 2009, four years after the policy change, caesarean rates had rose to 2.3%—around 2.5 times higher than the rates in 2005 (22). Maternal deaths post-caesarean also decreased from 2.1% in 2006 to 1.3% in 2009 (Figure 1) (22) (25).

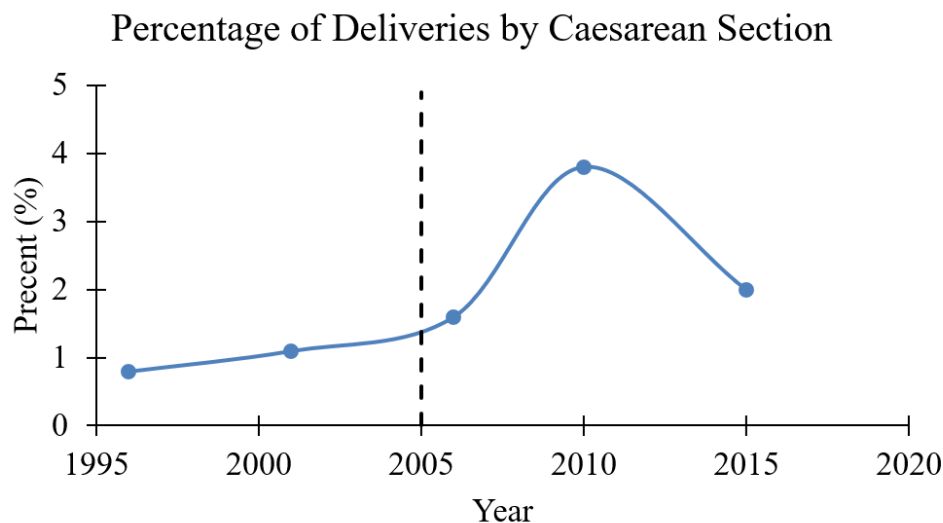


Figure 1. Percentage of deliveries by Caesarean Section Mali from 1996 to 2015. This value is calculated from the number of women age 15-49 years whose most recent live birth in the last 2 or 5 years was delivered by Caesarean section divided by the total number of women age 15-49 years with a live birth in the last 2 or 5 years. Dash line indicates the implementation year of the Free Caesarean policy. Estimates generated using the UNICEF Maternal and Newborn Health Coverage Database (25).

3. Quality of care

Quality of care in the Malian health care system has been low, historically as well as contemporarily. No user fees have been explicitly waived that would directly affect quality, however it was a goal of the Free Caesarean Policy to increase levels of skilled birth attendants, one measure of quality of care, along with maternal mortality rates (MMR). Tracing the history of MMR as well as skilled birth attendants shows that improvements in these indicators have occurred, but at a slow rate and seemingly without relation to user fees or the Free Caesarean Policy.

In 1982, there was one midwife available for every 3,000 inhabitants in Bamako (26). However, the ratio in rural regions was closer to one midwife

for every 80,000 people (26). From 1988 to 1992, around 18% of women in Mali had deliveries attended by trained professionals (26). The institutional maternal mortality ratio (iMMR) for 24 out of 25 maternal health facilities in Mali was 201 maternal deaths per 100,000 live births (26), while MMR was around 1000 per 100,000 live births (5). Hemorrhage was the highest cause of mortality; yet only two national hospitals had functioning blood banks (26). Out of the 25 hospitals, only seven institutions had surgical facilities (26). Oxytocic drugs, used to induce labour and stop bleeding due to birth, were unaffordable for many patients (26). Many vaginal examinations were done without gloves, because of “habit” (26).

During the period of user fees, the 1996 l'Enquête Démographique et de Santé (EDSM-II) reported an improvement in

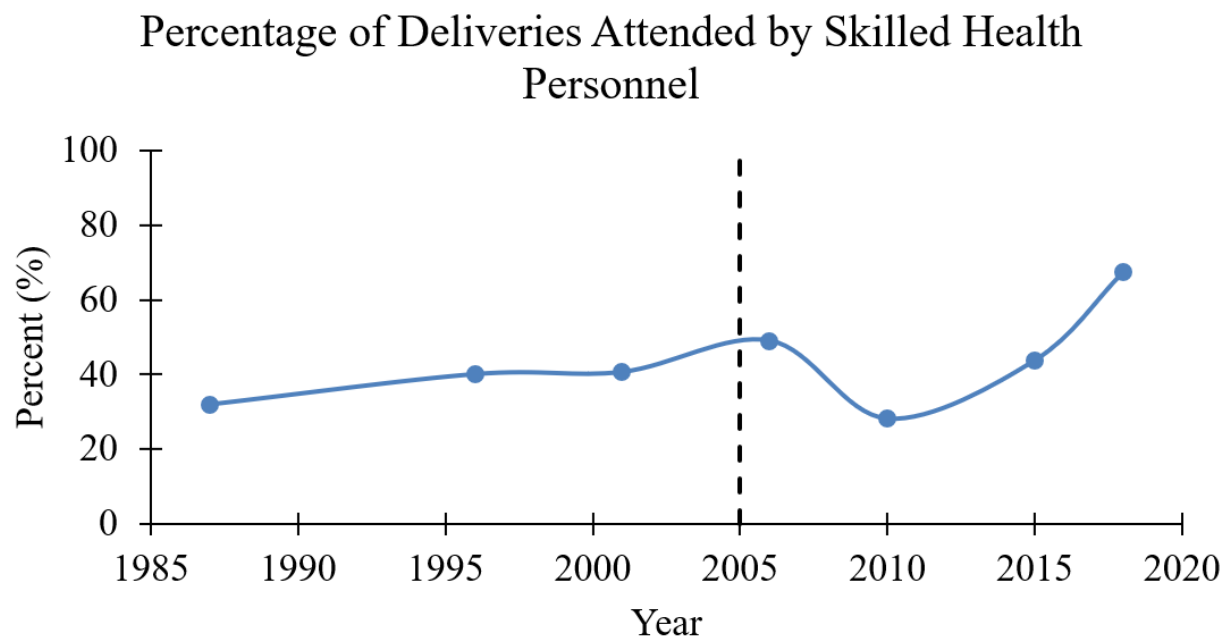


Figure 2. Percentage of deliveries attended by skilled health personnel in Mali from 1987 to 2018. This value is calculated from the number of women age 15-49 years with a live birth in the last 2 or 5 years who were attended by skilled health personnel during their most recent live birth (typically a doctor, nurse, or midwife) divided by the total number of women age 15-49 years with a live birth in the last 2 or 5 years. Dash line indicates the implementation year of the Free Caesarean policy. Estimates generated using the UNICEF Maternal and Newborn Health Coverage Database (25).

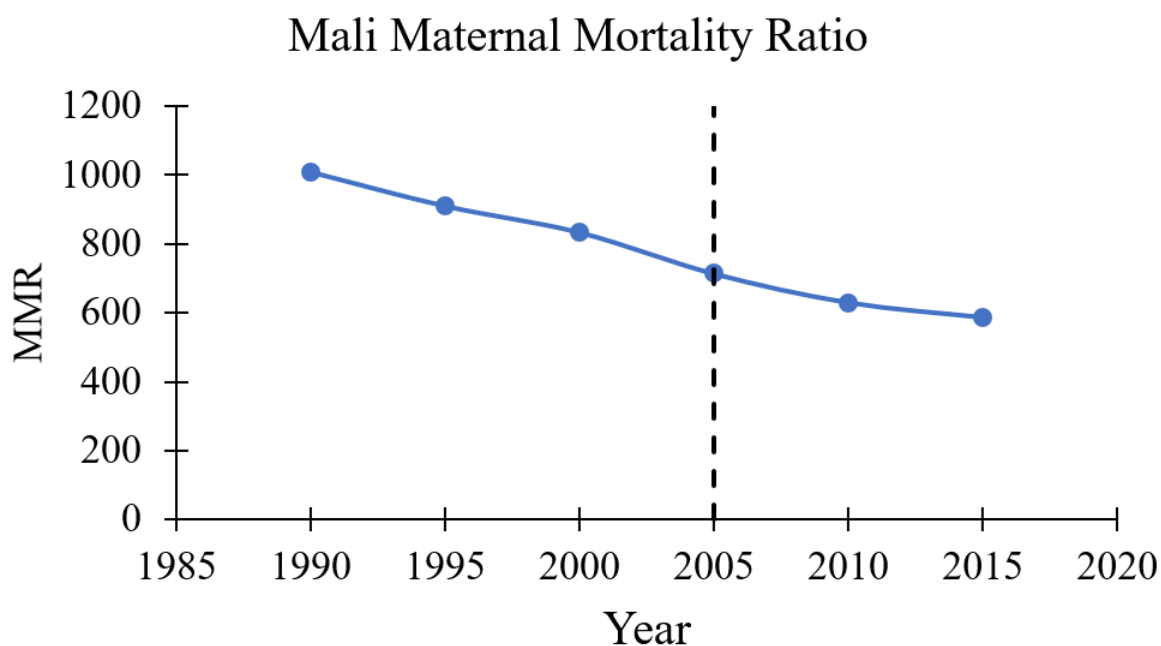


Figure 3. Mali's Maternal Mortality Ratio from 1990 to 2015. Dash line indicates the implementation year of the Free Caesarean policy. Estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division (29).

Mali's MMR, at approximately 577 per 100,000 live births during 1989-1996 (27). Skilled birth attendant (SBA)-assisted deliveries were as follows: 0.7% by doctors, 23% by nurses or midwives, 16.3% by matrons—making a total of 40% (27). The 2001 DHS report showed that 1.5% deliveries were by physicians and 39.1% were by midwives, making a total of 40.6% (23). In 2006, 1.4% deliveries were by physicians, 36% were by nurses or midwives, 33% by matrons, totaling 70.4% (24). Due to low levels of skilled health personnel, there were high levels of birth related complications and MMR. High MMR and delivery associated complications indirectly suggests poor quality of care despite the implementation of user fees.

Thus far, user fees in regard to skilled birth attendants have not been waived in any projects in Mali. However, the Free Caesarean policy also aimed to improve access to skilled birth attendance, in order to better deal with obstetric complications (22). In 2018, the DHS report showed the SBA-assisted deliveries had lowered slightly to 67.3% (28). Yet according to UNICEF, there is a 35.4% increase in the percentage of deliveries attended by skilled health personnel over 31 years (Figure 2). While this is certainly an improvement, Mali lags behind the global average of 81.1% of births with skilled attendants. Despite Mali's reduction in MMR (Figure 3), UNICEF also categorized Mali to have “insufficient progress” towards UN's Millennium De-

velopment Goal 5A (MDG5A), which is to reduce MMR by three quarters from 1990 to 2015 (29). As no explicit policies have been passed on fee exemption, and due to the increase in SBA as well as decrease in MMR seen during the period of user fees, no conclusion can be drawn on the impact of user fees or their removal on quality.

Discussion

Did User Fees Work?

In our evaluation of Mali's health care system for expecting mothers, we found mixed evidence as to the actual impact of user fees. Firstly, while the removal of direct costs of caesareans led to an initial rise of caesareans being performed, these numbers later dropped again. This may be due to the fact that direct costs do not take into account excess fees such as transportation and medications for complications due to the surgery. Secondly, MMR and rates of SBA both improved during the period of user fees, as well as during the period in which Mali began to phase them out. These improvements may have little to do with user fee policy, but may be related to other aspects of Mali's development progress. However, in other cases, user fees must be considered to be a significant barrier to health care access. In the case of MSF malaria project, as soon as user fees were abolished, there was a marked increase in those seeking care. It should be noted that this increase did not occur until fees were completely removed. Additionally, the cost of illness with respect to actual wages

underscores the unsustainability of the user fee policy.

Future Implications

While Mali has started to move towards UHC, there is still far to go. In 2010, the WHO's World Health Report formally decried user fees and urged countries to move towards UHC (30). In late February of 2019, Mali announced it would be increasing the national healthcare budget and reforming its health care system, beginning with providing free health care to pregnant women and children under 5 (31), which “effectively end(s) a 30-year practice known as the Bamako Initiative” (32). The new program is scheduled to be rolled out by 2022 but requires 120 million

\$USD of additional funding (31). However, this is only one step in providing health care that is truly universal and further policy change will be required to extend cover to the entire population.

Currently, Mali ranks low for UHC, although there are tentative signs of improvement. The WHO tracks countries' progress towards the Sustainable Development Goal 3.8—“Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all” (33). The indicators used are health service coverage and relative health expenditures. These

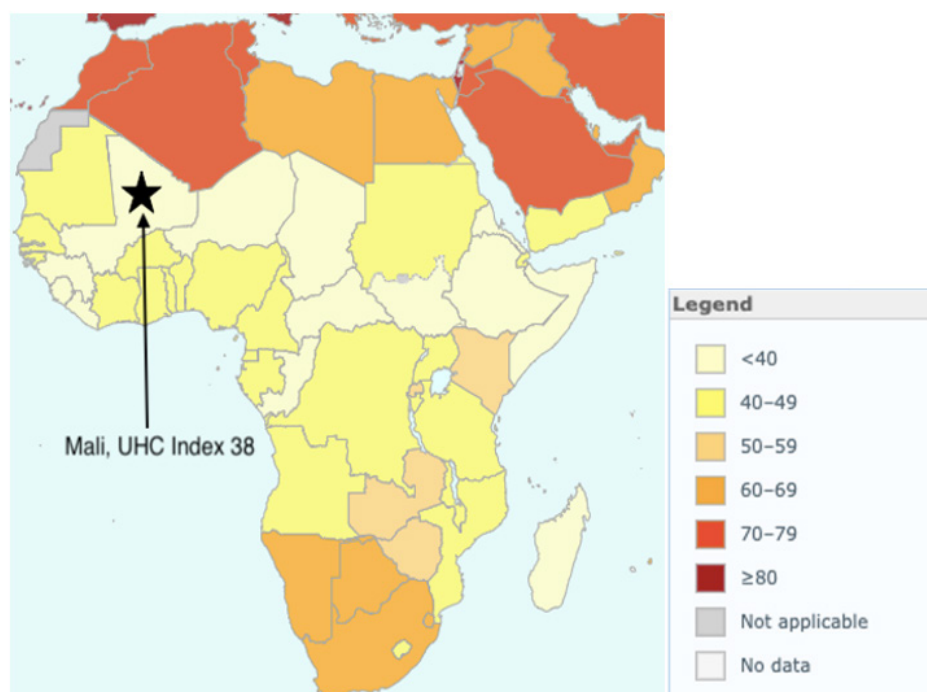


Figure 4. Mali's progress towards UHC. Mali has one of the lowest scores on the WHO index of UHC, even in comparison with its geographic neighbours. Data retrieved from WHO Universal Health Coverage Service Index (35).

two indicators create a composite, unitless index from 0 to 100, with 80 being the threshold of achieving UHC (34). Between 2015 and 2017, Mali increased 3 points on the UHC index, from an overall score of 35 to 38 (Figure 4) (34, 35). Much of this can be attributed to immense gains in reproductive, maternal, newborn and child health, with an increase from 37 to 50 on that index (35). Indices for infectious diseases, noncommunicable diseases, and service capacity and access remained stable and relatively low (35). The Government of Mali's strategy for UHC is building a community-based insurance scheme, yet this scheme only covered around 5% of the population in 2015 (36).

Recommendations for Implementing UHC in Mali

As Mali moves away from user fees, it will likely experience a surge in demand for services previously inaccessible to users. There are several steps Mali can implement in the transition away from user fees. Firstly, an analysis on how user fees currently affect health care utilization—in terms of revenue generated—and the actual impact of fees on service utilization must be conducted. For example, the relative cost of user fees to household income and the effectiveness of a waiver system to fees can predict how dramatic the increase in demand will be when fees are removed (37). Secondly, this data

can be used to decide how much more resources and human capital will be required to meet demand, and define ways in which to mobilize the needed financial resources (37). Lastly, both political commitment to the new health policy as well as civil engagement and communication is crucial to create long lasting and sustainable changes (37).

Additionally, without income from user fees, Mali must find alternative methods to finance its health care system. Expanding prepayment systems is one option, by implementing health insurance in a social, private, community or tax-based context, while providing exemptions for the poorest (10). The government may also consider providing direct subsidies for vulnerable groups such as vouchers or conditional cash transfers (10). Mali's roll-out of user fees will require many changes to its current public health system, but the benefits from UHC may just be what the country needs for strengthening their poor health indicators.

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