# Cost and impact of policies to remove fees for obstetric care in Benin, Burkina Faso, Mali and Morocco

Report written by Sophie Witter and the FEMHealth team

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# Acronyms

| | |
|---|---|
| CHR | Centre Hospitalier Régional (Regional hospital) |
| CHU | Centre Hospitalier Universitaire (University hospital) |
| CMA | Centre Médical avec Antenne Chirurgicale (Upgraded health centre with surgical facilities, Burkina Faso) |
| DSME/DSF | Direction de la Santé de la Mère et de l'Enfant /Direction de la Santé de la Famille (Family Health Division, Burkina Faso) |
| DHS | Demographic and Health Survey |
| FFT | Financial flows tracking |
| MDGs | Millennium Development Goals |
| POEM | POlicy Effects Mapping tool |
| WHO | World Health Organisation |
| FEMHealth | Fee exemption for maternal health research programme |
| WP | Work package (research groups within FEMHealth) |
| EmONC | Emergency Obstetric and Neonatal Care |
| MAD | Moroccan Dirham |
| FCFA | West African Franc |
| EC | European Community |
| CSPS | Centre de Santé et de Promotion Sociale (Burkina Faso) |
| CHP | Centre Hospitalier Provincial (Provincial hospital, Morocco) |
| CS | Centre de santé (health centre) |
| RAMED | Régime d'assistance médicale (Health insurance programme in Morocco) |
| ANGC | L'Agence Nationale pour la Gratuité de la Césarienne (managing agency for the free caesarean policy in Benin) |
| DHSA | Direction des hôpitaux et des soins ambulatoires (Hospital and Ambulatory Care Department, Ministry of Health, Morocco) |
| CS Com | Health centre (Mali) |
| CS Ref | District hospital (Mali) |

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# Executive summary

## *Introduction*

There is a growing consensus that maternal health outcomes can only be improved through policies and programmes that combine interventions to address the different causes of ill health and target multiple groups. Such policies and programmes are complex in nature as they involve coordination between different tiers in the health system and multiple actors including communities, health workers and managers. User fee exemption for delivery and emergency obstetric care (EmONC) is one such policy that has been introduced by several African countries with the aim of improving access to care and thus improving maternal and neonatal outcomes. However, the current evidence base regarding the impact of this policy is not well developed, in part because of evaluation designs that are not able to capture all the necessary information for policy-makers to make informed decisions. The FEMHealth project (2011-14) aimed to reduce this gap by developing research methodologies and tools that would lead to enhanced research on policy implementation, stronger evidence and improved dissemination. Focal countries for the research were Benin, Burkina Faso, Mali and Morocco.

## *Research methods*

At the start of the project, a set of core research questions were developed which outlined the main levels, domains and topics which FEMHealth would seek to investigate. These form the broad structure of this report, which flows from an analysis of the drivers behind the policies, their objectives and formulation at the national level to analysis of how they interacted with and impacted on district-level health systems, and, finally, their effects and effectiveness at community and household level.

The findings presented in this report are taken from 14 main research tools, most of which were used in all four study countries. They used mixed methods and included: document review; interviews with key informants at international, national and district level; analysis of routine financial and health information, as well as of secondary survey data; structured extraction from medical files; surveys of patients and staff; in-depth interviews with patients and observation of care processes. Conceptual frameworks linking all of these components were developed at the start of the programme and helped to integrate results.

Within each country, 4-6 study sites were chosen using criteria relating to minimum samples, but also a range of contextual criteria including poverty rates, utilisation levels, and distribution of population - the aim being to include a variety of contexts, including areas with higher barriers of poverty and low utilisation as well as ones where access was better prior to the policy introduction.

The main overall study limitations were an absence of baseline indicators for many variables, which limited our ability to trace policy impact directly; gaps in secondary data for a number of areas; and civil conflict in Mali, which has reduced the results from that case study. In order to study effects, FEMHealth used previous studies, where available, and time trend analysis. We also used cross-sectional analysis to understand how differences in outcomes might link to differences in implementation of the policies. Our overall approach was to construct a plausible narrative of policy introduction, implementation and effects, based on a triangulation of different sources and methods.

## *Findings*

**Context and drivers behind policies**

One of the FEMHealth research strands aimed to understand the origins of the policies in this region – why had so many countries adopted similar policies over a short period? What were the drivers behind this and how far had they been influenced by one another and by international actors?

One set of drivers related to context and the recognition by decision-makers that socio-economic factors were behind low overall supervised delivery rates in Mali, Burkina Faso and Morocco (Benin already had relatively high facility deliveries at 80%) and large inequalities in all four countries. Design of policy varied however: Morocco took the most wide-reaching approach, embedding the free obstetric care at hospital level within a wider action plan which included investments in quality of care and improved governance. Mali and Benin were the most specific, focussing purely on caesarean sections and some related complications. Affordability was one factor behind the narrowing down of services in Benin.

The hypothesis that international actors might have been behind the proliferation of related policies in the West Africa region was not sustained: interviews suggested that while international influences have been important in shaping the global climate which permeate the four case study countries, the decision-making and elaboration of the policies were dominated by local factors. International actors may have lost some credibility through changes in stance on issues like user fees, with strong but changing messages over the past two decades.

Countries which were once the heartland of the Bamako Initiative have been amongst the most active in taking up selective exemptions (which were seen as more acceptable and affordable than broader approaches to fee removal). The emphasis on the MDGs and, now, on universal health coverage have influenced the underlying discussions, and these free care policies have to be seen in a context of proliferating exemptions in the countries and region for many different vulnerable groups and priority services, though variably implemented. Shame at performing less well in relation to neighbours was highlighted as a driving factor for Morocco. Personal political leadership was seen as critical in all contexts to enabling the policies to be realised – particularly for setting out a vision, and mobilising funds and support. Evidence, while it was marshalled quite thoroughly in two countries (Morocco and Burkina Faso), was used more to assist with planning implementation details than in propelling the original policy adoption itself.

In relation to learning across countries, there was some evidence that countries had looked with interest at the experience of their neighbours who had started implementing earlier, but no formal channels of transmission of detailed lessons were identified.

**Design and implementation of the policies**

While there are many common elements, the policies differed in some respects. The government in Burkina Faso opted for a subsidy policy supporting 60 to 80% of the costs of obstetric and neonatal care in all public health facilities in the country. This initiative differs from what is in place in Morocco where normal delivery and caesarean sections are totally free at all levels of public hospitals. The policies in Benin and Mali are also different from the Burkinabe one since they are based on 100% reimbursements of caesarean costs alone. In the case of Benin, this covered accredited confessional and private facilities as well as the public sector.

All medical costs associated with the target services within hospitals (and health centres in Burkina) were included in principle in the package. None of the countries covered transport to the first level facility, but all claimed to cover onward referral transport, though in practice patients often paid. For Morocco, food within the hospital was covered, but this was not the case for the other countries.

Implementation arrangements also varied: most policies were managed by a national committee but in the case of Benin, a dedicated autonomous agency was established to manage the policy. These differences are reflected in some of the research findings: for example, the centralised model adopted by Benin may explain why there were no discrepancies or major delays in reimbursement flows to facilities. However, there were also downsides, in terms of a lack of involvement of the zone in managing and monitoring the policy (the chain of command went straight from the agency to the hospitals, without involving district managers).

**Financing**

In all four countries, the policy is financed almost entirely by the state, with a notable absence of direct donor financial support and indirect donor support for the sector ranging from 0.5% of public health spending in Morocco to 36% in Burkina Faso.

The three sub-Saharan African countries reimburse retrospectively according to the number of services provided, using fixed payments per caesarean in Mali and Benin, and reimbursement of actual variable costs in Burkina Faso. For Morocco, hospital budgets have been boosted to reflect rough estimates of revenue likely to be lost due to the withdrawal of fees for deliveries, but these bear no relation to actual workload and have not increased over time (indeed all subsidies for hospitals were unpaid in 2011). Additional investments in staffing and improved access and care were made in Morocco, which was not the case for any of the other countries. These features are reflected in some of the findings on implementation and effectiveness: quality of care scores, for example, are relatively good in Morocco.

The payment systems also create specific incentives. For Burkina Faso, the payment of actual costs means that there is no incentive to over-provide or to skimp on quality, but on the other hand, there is no surplus to reinvest (the costs are just the variable ones, such as drugs and supplies, so there is no contribution to general facility running costs). In addition, the workload implied by billing by item is considerable, which is why this factor caused discontent amongst the staff in Burkina Faso, more than in any other country. By contrast, the fixed tariff in Benin was found to overpay caesareans at all levels of hospital (relative to actual production costs but also relative to previous payments from users). On the positive side, examples of managers reinvesting the surplus in improving overall services were found. On the negative side, there was a perception that staff were sometimes too eager to do a caesarean, rather than letting women try for a normal delivery. In addition, despite the generous payments, some hospitals continued to make women pay for items which should be free (see below).

The scale of investment is hugely different across the countries, with Morocco spending in the region of 24.5 million Euros on its overall action plan in 2011, compared to 3.2 million Euros in Benin, and 415,000 Euros in Burkina Faso. Per delivery covered that equates to 1.3 Euros for all deliveries (Burkina), 152 Euros per caesarean (Benin), and 797 Euros for all deliveries combined (Morocco). Clearly, these differing scales of investment should shape our expectation of results.

As a proportion of public health expenditure in 2011, the policies absorbed around 2.5% in Morocco, 3% in Benin and 3.5% in Burkina Faso – not insignificant but all potentially sustainable, if the policies are seen as effective.

**Health systems effects**

*Human resources*

The only country to accompany its policy with a significant increase in staff was Morocco, which increased the deployment of midwives and hospital specialists as part of its overall action plan. For other countries, there was no evidence of increased numbers of staff in any large measure, though in Benin, the additional resources provided by the policy allowed some local changes to improve staffing. Reported working hours for the main groups of staff concerned with obstetric care remain reasonable even after the policy, across all four countries, but workload (patients seen and deliveries attended) are reported to have increased for three out of four of the countries (Mali being the exception). In Burkina Faso, the administrative workload imposed by the policy was a particular concern. The consensus was that the policies have not affected their remuneration (as there are no direct financial incentives linked to it for any of the staff in any of the countries).

Across all countries the majority of staff surveyed feels positive about the wider effects of the policy, believing that the policy has increased access to supervised deliveries, has benefited the poor, and has improved the quality of care, including through improvements to drugs and supplies. This also impacts positively on health worker working conditions and satisfaction in some countries, like Burkina Faso and Mali.

*Facility finances*

In Morocco, despite the increased budget to accompany the implementation of the free caesarean and delivery policy, the general revenues of the health facilities have not been affected positively. In 2011 and during the first half of 2012, no financial resources were provided at all. This has affected the financial reserves of the health facilities that are still implementing the gratuity policy. For Benin, the costing revealed that the current tariff is beneficial to hospitals, paying considerably more than it costs to provide the service, though the surplus varies by type of hospital. In addition, payments have been regular. For Mali, the calculus is different, with the reimbursements not fully covering costs of provision. In Burkina Faso, payments are often delayed and do not include any operating costs beyond the direct inputs needed for the service.

It might be expected that extra costs would be levied from users in countries where facilities are poorly rewarded for providing care, however analysis of household payments does not support this. In absolute terms, women reported paying the largest amount overall for caesareans in Benin (60 Euros on average), where the payment for the policy is most generous. This suggests that organisational culture and other factors play a role in the levying of additional payments from users, rather than actual financial need from the facility perspective.

*IT systems*

There has been no broad effect of the policies on health information systems, either positive or negative. In Benin, there has been a policy-related improvement in the obstetric information gathering, but this has not cascaded into other areas of health information. In Burkina Faso, a specific system of collecting information on the policy was put into place, and it is operating with variable success. As for Morocco, the wider information system is unchanged and is generally seen as onerous for health staff.

*Drugs and supplies*

All four countries used kits to support the implementation of the policy, with varying results. The policy in Morocco was accompanied by a large increase in kits, which meant that drug supply improved, though in some places, kit numbers were well in excess of need. For Burkina Faso, drug supply also improved, but management of kits sometimes lacked transparency and stock-outs did sometimes occur. In both Morocco and Burkina Faso, equipment was felt to be lacking, with no

provision made to improve working conditions. In Benin, the kit contents were perceived to be too generous at first, leading to misuse, and then too restrictive, leading to costs to users for items not included in the kits. In general, it could be said that attention was paid to providing specific drugs and items needed for obstetric care, but there was no wider investment in the supply system and a continuing focus on the use of kits, which as seen, may not be the most efficient method of organising supplies.

*Management*

The policies introduced threats and opportunities for local managers, and examples were found of positive and negative adaptation. Generally, managers had not been much involved in the development of the policy, and in many cases detailed guidance on how to implement it was lacking. Management teams have leeway to interpret the policy. In some cases, it was found that actors such as directors and specialists used their power position to adapt the policy to their own benefit, e.g. in some study sites of Benin or Morocco, patients were still charged fees, because staff were compensating for the free caesareans by charging something else to the patient. These effects can be moderated or avoided by capable management teams and adequate supervision by programme managers, as seen in other study sites of the same countries, where district health managers and or hospital directors are positively engaged with the policy implementation and the protection of service users.

In most study sites in Benin, Mali and Burkina Faso, the management teams did not have a large absorption capacity to take up the new tasks without additional resources. When the reimbursements were late or inadequate, the implementation halted. In Morocco, this was not the case, as the capacity of the teams, the existing implementation infrastructure in terms of human resources, facilities, and equipment was adequate to take up the new patients.

**Factors behind differential implementation**

The analysis of divergent responses of different cadres within our realist evaluation case studies indicated that the adoption of the policy is explained in part by the configuration of autonomy, decision space and motivation of these actors and by organisational, institutional factors and contextual factors. Different responses were found by teams in different sites within the same country, indicating that beyond policy design and national features, there is an inter-play of local factors which influences whether the policy is blocked, adopted or adapted. This highlights the importance of reinforcing the stewardship function, not only in relation to these policies but more generally. The role of ensuring public accountability, in particular, was found to be underdeveloped or even not mandated clearly. In any case, lack of effective stewardship allowed faulty implementation processes to continue in many of the sites.

**Impact on utilisation**

- For Burkina Faso, there is a statistically significant decline in the rate of increase facility deliveries (i.e. between 2002 and 2007 there is a 12% relative increase each year, whereas between 2007 and 2010 there was a 6% relative annual increase) - so whilst the overall rate is increasing in absolute terms, it is doing so less rapidly post-2007. For caesareans, there is no evidence of a change in either direction.
- For Morocco, there is no evidence of a change post-2008 in facilities deliveries: the gradient is flat. There is actually a significant decrease in caesarean rates after 2008, though this may be related to the 2008 data point being erroneously high. In either case, there is no evidence of a change in gradient.
- For Benin, there is an upward trend but no significant change in gradient post-policy
- For Mali, we have no comparable post-policy data, though the change may be modelled when the next DHS dataset becomes available.

It is evident overall that countries have made progress over the past 15-20 years, and these policies may have contributed, but there is no evidence of that as yet. It is almost certainly too early to tell, as we have only 2-3 post-policy data points in each country, and the varying implementation documented by FEMHealth also underlines the need to be cautious about assuming immediate effectiveness of policies.

Furthermore, the Morocco caesarean section rate is at a level where any increase (even if true) would be unlikely to lead to further reductions in maternal mortality, and if anything the concern is excess and unnecessary caesareans among certain groups.

**Impact on other (untargeted) services**

The research looked in a systematic way for the impact of the policies on untargeted services, in order to capture any unintended positive or negative effects, but found no major effects. Some positive effects of additional resources introduced by the policies were documented (e.g. in Morocco and Benin), as well as from wider utilisation uptake in Burkina Faso, linked to the policy. On the negative side, some examples were found where the policy encouraged resources (such as staff) to move from untargeted to targeted services. More significantly, in Benin, there was some evidence of supply-induced demand for caesareans, at the expense of normal deliveries. Trend analysis of provision of general medicine and paediatric services in all countries and sites did not reveal any evidence of distortions linked to the exemption policies.

**Impact on quality of care**

Overall, women's perceptions of the quality of the services were generally high or very high, and did not correlate well with technical quality of care scores (being highest in Burkina Faso, where technical scores were lowest). The quality of neonatal care, measured by the number of omissions in routine neonatal procedures, was very poor in some hospitals in Benin and Burkina Faso, and generally poorer than the quality of maternity care. Median delays in receiving caesarean sections were above the expected threshold of 1 hour in most hospitals (except in Morocco) and were the highest in Benin hospitals where the policy was designed to facilitate access to life saving emergency surgery. Hospitals in Morocco performed consistently better than hospitals in the other countries.

In observations and interviews in Benin and Morocco, incidents of poor communication were observed, including lack of informed consent for surgical care and poor bedside manners. In Benin, while poor interpersonal relationships in maternity wards had been documented in previous studies, in this project these were attributed by several respondents to perverse effects of the free caesarean policy.

Hospitals are still receiving many cases of near-miss, particularly maternal near-miss, with hospital incidence ranging from less than 2% in Morocco to 14% in Benin. As cases of maternal near-miss are women who nearly died and were saved in extremis, there is still a lot of progress to be made in the organization of the health services in order to reduce the burden of several morbidity and mortality in the focus countries.

Our key hypotheses included that hospitals/districts with lower user fees cost may register shorter delays and fewer adverse events because women may arrive earlier in facilities; but that on the other hand, an increase in volume of patients, if not met with an increase in human resources, might lead to a deterioration of the quality of maternity and neonatal care. While in Burkina Faso, there seemed to be a positive correlation between average omission scores, average delays and the success of the implementation of the policy (as measured by excess payments made by patients under the policy), limited relationships exist between the omission and implementation score in

Benin, implying that quality of the care provided was affected by many factors which may be quite independent from policies designed to increased access.

**Impact on households**

*Awareness of policy*

Awareness of the policies was relatively low, ranging from 20% amongst women who had delivered in Benin to 53% in Mali (but much lower in some districts). As these interviews were conducted with women who had used services and had already delivered, wider awareness can be assumed to be even lower. Detailed knowledge of entitlements was very low. Clearly, if policies are to influence care-seeking a greater communication effort is needed, especially for poorer and more remote women (awareness tended to rise for higher quintiles).

*Impact on delay in seeking care and health seeking behaviour*

In general, median reported delays in leaving home, arriving at facilities and being seen were acceptable, although there was a large variation between sites and by type of delivery, and a wide range within the responses in general. The median delay in leaving the house was rather high in Benin. In addition, it is important to remember that those interviewed represent those who were able to access care, and these are often not the most disadvantaged women. Perceptions of need, the availability of transport and the availability of the key decision-maker (who varied by site) emerge as significant.

In-depth interviews with users suggest an appreciation of the policy and that the policy did address some of the key barriers to access. However, it did not necessarily change health seeking behaviour. In Morocco, interviews showed that the choice of location for deliveries was made largely according to expected comfort, care and monitoring (for example, at home), and reassessed in cases where outside help was decided to be necessary as a matter of urgency. Transport was a key barrier. At the hospital, the absence of a doctor, the gaps in surveillance, inadequate resources, and tedious negotiation process to receive the desired care were all aspects known and anticipated by women when considering their recourse to care.

In Benin, there was also no evidence from the interviews or observations that women modified their decision to seek out skilled professionals at birth due to the policy. While the policy was appreciated and the costs of caesarean sections were considered to be more affordable than in the past, the policy does not erase the fear of the caesarean section as a medical procedure and the threat of loss of life. Decisions about where to give birth were based on hospital reputation, convenience of access and past delivery experiences.

*Impact on inequities of access*

In all three countries for which there is recent household survey data (i.e. excluding Mali), the relative inequity between the poorest and the richest has declined over time (in that there have been bigger gains among the poorest). The policy may have contributed to this but this is a longer term trend, and one which followed to some extent from the fact that richer women already had high coverage. In all three countries there remains substantial inequity in utilisation of care.

*Financial impact for households*

In relation to the amounts which should have been paid by households under the policies, we found that they are paying excessive amounts in all countries, though the excess payments are relatively low for Morocco (2% of their total payment for caesareans and 6% for normal deliveries), which indicates a relatively effective implementation of the policy. By contrast, in Mali, 49% of the household payment is excessive. Intermediate proportions of 13% (for Benin) and 17% (for Burkina)

were found for caesarean sections. The absolute amounts paid in Benin were higher than for Burkina, as the overall payments were higher.

Patterns of payment across quintiles and across rural and urban areas varied. Large proportions of the households in all settings and quintiles incurred catastrophic costs, even under the current policies (and a higher proportion in rural than urban areas in all four countries).

Certain costs, including transport, cost of companions, care of newborn (in some countries), tipping of health workers and supplementary drugs remain a burden. Lack of clarity on charging can also reduce predictability of costs and cause anger and confusion for women and their families.

Between 0 and 35% (depending on the site) of households surveyed had been unable to make the requisite payments, with those in lower quintiles more likely to report this than higher. In general households coped by using savings and getting help from family and friends, but some had to sell productive assets such as land to cover the bills. Very few had health insurance membership and in general, health insurance was not a protective mechanism for most households, as it is pro-rich in its distribution.

Looking at the difference between recorded payments prior to the policies and average payments now, households have made a substantial financial gain. In Burkina Faso, there was a reduction of 71% for deliveries of all kinds. In Morocco, the gain was lower for normal deliveries (62%), compared to 92% for caesareans. The estimated saving for caesareans in Benin was in the region of 74%, compared to 78% for Mali.

## *Conclusions*

The policies in Burkina Faso, Benin, Mali and Morocco were strong national initiatives which aimed to improve maternal health and to increase access to obstetric care. On one level, the evaluation produces inconclusive results: we observe positive trends in relation to supervised deliveries and caesarean sections and a narrowing of inequalities in all three countries for which recent data is available but cannot attribute these to the policies. There is no significant change in the trends which coincides with the introduction of the policies. It is likely that they have contributed to the ongoing trend, but this is only speculative.

The heavy emphasis of these policies on caesareans (in two out of four countries) has been problematic in a number of ways: caesareans can save lives, but even if utilisation increases it is not easy to know if the right (medically indicated) women have received care. Moreover, the use of caesareans is heavily skewed to the rich and to urban areas, meaning that the benefits of the funding will almost automatically be biased in favour of the rich. It is an intervention which in some contexts needs boosting, but in other contexts (or for some groups) needs controlling. It can be induced by suppliers and patients for the wrong reasons, and carries medical risks. While policies to reduce the costs of caesareans (which are high cost, potentially catastrophic events from a households perspective) can provide real financial benefits to households, as these have done, from a public health perspective a wider policy covering a range of life-threatening obstetric complications and also the pathway to them (facility deliveries) is preferable. Morocco and Burkina Faso illustrate this approach.

On that basis, should we conclude that the policies were not cost-effective, or did not represent value for money for the national budget? This requires a more nuanced judgement. One of the underlying objectives was to reduce the burden on households of this essential service, and so change behaviour. The evidence of the FEMHealth research suggests that while financial barriers are significant and are connected to many other barriers (physical, cultural etc.), on their own their

reduction does not change behaviour, unless it is connected with a positive shift in other aspects, such as perception of quality and responsiveness. Policies on financial access therefore need to be designed with improvements to these other facets in mind, as an integral part of their design. Behaviour change also has to be measured over a longer period, as habits in relation to significant services such as delivery change slowly.

Looking at a simple comparison of the funds spent by government on the policies versus the estimated gains made by households gives another insight into the value for money question. In all three country for which we have unit cost data (this is missing in Morocco), the average expenditure per delivery was lower than the average gain per household with a delivery. There is therefore a net gain, which probably reflects the payment system and the fact that facilities are providing care without fully recovering their costs. If they are able to do this and still provide adequate care without passing additional costs to women, then the policy is leveraging an efficiency gain in the health system.

Wider impacts, positive and negative, intended and unintended, are also to be taken into account in coming to an overall judgement about these policies. We have found a range of these but they vary by context and suggest a variety of outcomes can be expected from these policies, depending on their features but also the context and the institutional and organisational frameworks into which they are introduced. This complexity means that no one simple answer to the overall evaluation can be produced for all settings.

The overall recommendations arising from the evaluations are closely linked to tackling the weaknesses outlined in the report, not only in relation to the policies but also the underlying systemic challenges.

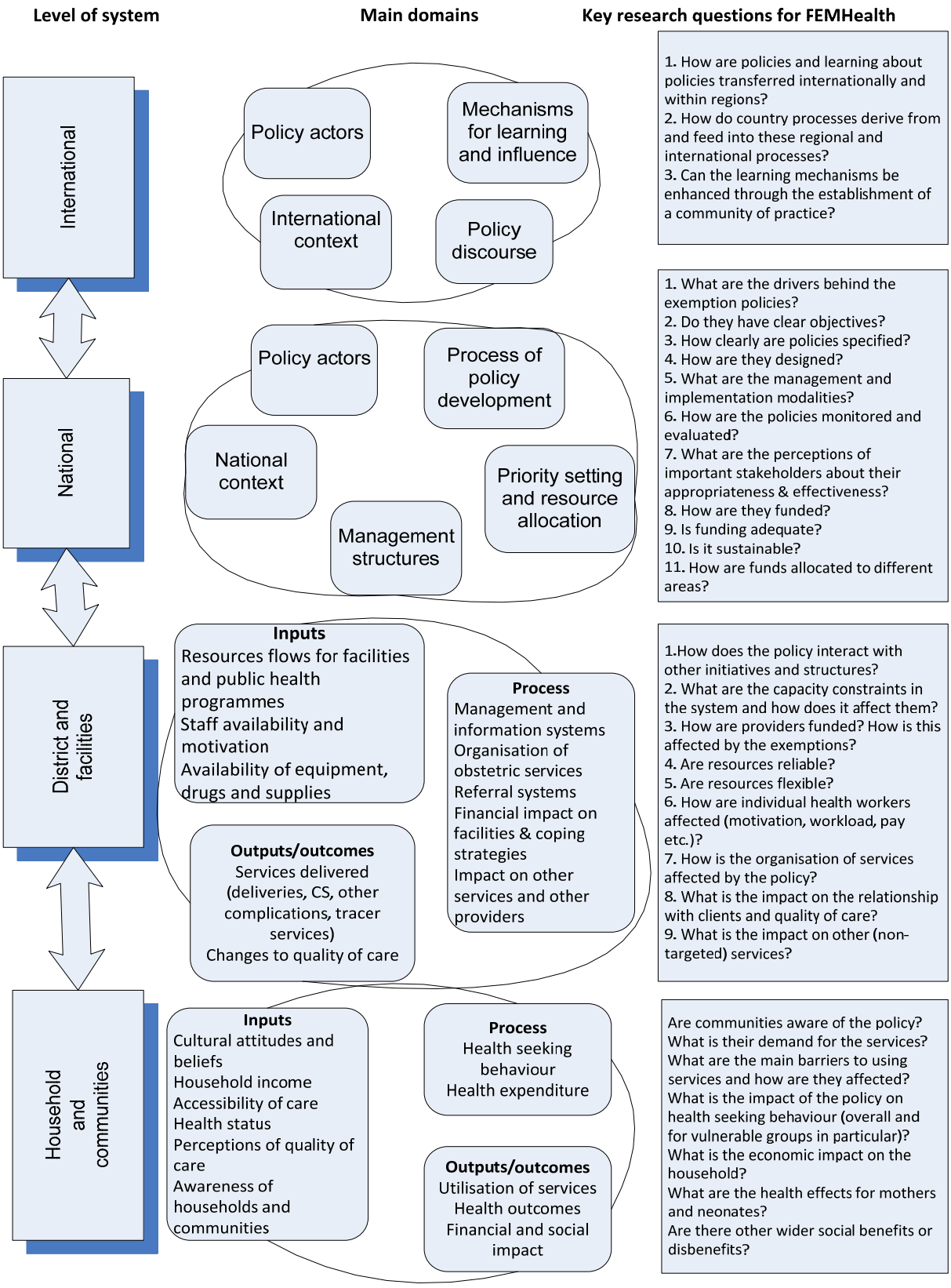
# Introduction

There is a growing consensus that maternal health outcomes can only be improved through policies and programmes that combine interventions to address the different causes of ill health and target multiple groups. Such policies and programmes are complex in nature as they involve coordination between different tiers in the health system and multiple actors including communities, health workers and managers. User fee exemption for delivery and emergency obstetric care (EmONC) is one such policy that has been introduced by several African countries with the aim of improving access to care and thus improving maternal and neonatal outcomes. However, the current evidence base regarding the impact of this policy is not well developed, in part because of evaluation designs that are not able to capture all the necessary information for policy-makers to make informed decisions. The FEMHealth project (2011-14) aimed to reduce this gap by developing research methodologies and tools that would lead to enhanced research on policy implementation, stronger evidence and improved dissemination.

The overall aims of the project were: (1) to develop new methodological approaches for the evaluation of complex interventions in low income countries, (2) to improve the health of mothers and their newborns by performing comprehensive evaluations of the impact, cost and effectiveness of the removal of user fees for delivery care on maternal and neonatal health outcomes and service quality, and (3) to improve the communication of this evidence to policy-makers and other stakeholders. This report summarises evidence in relation to the second objective, drawing across a range of research components and tools.

At the start of the project, a set of core research questions were developed which outlined the main levels, domains and topics which FEMHealth would seek to investigate (Figure 1). These form the broad structure of this report, which flows from an analysis of the drivers behind the policies, their objectives and formulation at the national level to analysis of how they interacted with and impacted on district-level health systems, and, finally, their effects and effectiveness at community and household level.

**Figure 1 FEMHealth main research questions**



# Research methods

The findings presented in this report are taken from 14 main research tools, most of which were used in all four study countries.

More details on the methods can be found in the constituent reports, which will be made available on the FEMHealth website (www.abdn.ac.uk/femhealth).

All protocols received in-country ethical approval – in October 2011 in Burkina Faso, January 2012 in Morocco, March 2012 in Benin, and July 2012 in Mali. In addition to the approval from the ethics committee, administrative authorization was requested and obtained from the regional health departments, districts, hospitals and at national level in all four countries. The component tools supported by thematic work packages were also approved by the ethics committees at the LSHTM and ITM.

The main limitation faced by the study as a whole was that in each case, policies had been introduced nationwide and some years earlier, with no control areas and no formal baseline data. In order to study effects, FEMHealth used previous studies, where available, and time trend analysis. We also used cross-sectional analysis to understand how differences in outcomes might link to differences in implementation of the policies. Our overall approach was to construct a plausible narrative of policy introduction, implementation and effects, based on a triangulation of different sources and methods.

In the case of Mali, civil conflict has meant that the full data set could not be collected. Consequently, this report contains some results for Mali, but not the full evaluation results which were obtained from the other three countries.

Table 1). The first set (within work package 2) relate to health policy and health financing analysis. The second (WP3) focussed on analysis of the health district implementation and effects. The final work package (WP4) analysed changed to utilisation and quality of care. Conceptual frameworks linking all of these components were developed at the start of the programme and have been described elsewhere (Marchal et al. 2013).

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**Table 1 Summary of FEMHealth research tools**

| | Tool | Level | Key themes | Approach | Sample Size | Work Package |
|---|---|---|---|---|---|---|
| 1 | Observation grid in meetings (B-SCALA) | Actors at the national, regional and international level | The ways/direction and content of the discussion and presentation of the exemption policy<br>Key concepts: hierarchy, power, evidence, etc. | Participant observation in policy and maternal health meetings | Benin: 1 conference and 10 agency meetings | WP2<br>*(Health Policy)* |
| 2 | Interview guide with national and regional actors | Actors at the national, regional and international level | Introduction of the policy Perceptions of how the policy was put in place and how it works<br>Actual implementation of the policy compared to official documents<br>Elements of the political context necessary to ensure the policy is implemented and is effective<br>Exchange between national, regional and international actors policy on the policy | Structured discussion with key informants | Number of informants interviewed in the following countries:<br>Benin: 24<br>Morocco:12<br>Burkina Faso:23<br>International: 9 | WP2<br>*(Health policy)* |
| 3 | Document review | National | Review of published reports, analyses, press releases and other documents related to the policy at national level | Thematic analysis | | WP2<br>*(Health policy)* |
| 4 | Financial flows tracking (FFT) | National, regional, district, and health facility level | 1. Budgets & expenditure<br>2. Distribution per region and health services<br>3.Payment Schedule (and the kits/equipments where necessary)<br>4. Consistency with the recorded activities<br>5. Consistency and adequacy of funds arriving at the health facilities | A structured collection and analysis of secondary data | Benin:<br>-National Level<br>-6 regions,<br>-5 districts (zones sanitaires)<br>-7 hospitals<br>Burkina Faso:<br>-National Level<br>-5 regions<br>-6 districts<br>-12 hospitals (1 CHU, 2 CHR, 4 CMA, 6 CSPS)<br>Morocco :<br>National level<br>-6 districts<br>-6 hospitals (1 CHR, 5 CHP) | WP2 (Health financing) |

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|---|---|---|---|---|---|---|
| | | | | | Mali :<br>-National Level<br>-4 regions<br>-8 hospitals | |
| 5 | Costing | Health facility level | Unit cost of production of key maternal health services: normal deliveries, complicated deliveries, caesarean sections, antenatal care, postnatal care | Based on interviews and a extraction of information from sample of medical records | Benin: 7 hospitals in 5 districts (zones sanitaires)<br>1050 cases<br>Burkina Faso:<br>-6 districts<br>-6 hospitals (4 CMA, 2 CHR)<br>443 cases<br>Morocco: No Costing tool<br>Mali :<br>-4 CHR<br>-4 HD<br>-2 CSREF<br>2691 cases | WP2 (Health financing) |
| 6 | Exit interviews (EI) | Women who had a delivery, their husband or relatives who accompanied them at the hospital | 1. Costs for a given delivery inside and outside hospitals<br>2. Expenditure as a percentage of household consumption<br>3. Healthcare seeking behaviour<br>4. Access to health facilities<br>5. Perceptions of quality of care | Structured questionnaire | Benin:<br>663 women in total interviewed<br>-294 with a c-section<br>-294 women with a complicated delivery<br>-81 women with normal delivery<br>Burkina Faso:<br>1609 women in total<br>-818 with a c-section<br>-462 with complications<br>-316 with a normal delivery<br>Morocco:<br>973 women in total<br>-423 with complications<br>-442 with c-sections<br>-108 with normal deliveries<br><br>Mali: | WP2 (Health financing) |

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|---|---|---|---|---|---|---|
| | | | | | 589 women in total<br>- 30 complicated deliveries<br>-345 c-sections<br>-188 normal deliveries<br>-26 without assistance/home delivery | |
| 7 | Health worker survey (HWIS) | Health workers | 1. Health workers and their workload<br>2. Working hours<br>3. Sources of income<br>4. Motivation at the workplace<br>5. Changes in the above factors, associated with the policy<br>6. Perceptions of the policy | Structured questionnaire (with some open questions) | Benin: 190 health workers in total<br>Burkina Faso: 130 health workers in total<br>Morocco: 187 health workers in total<br>Mali: 176 health workers in total | WP2 (Health financing) |
| 8 | The Policy implementation assessment (POLIAS) | District Hospitals | The start of the implementation of the policy<br>The service package covered by the policy<br>The proportion of facilities offering the service package free of charge and permanent basis<br>The actual geographical coverage | Structured discussion with key informants<br>Documentary review (for triangulation purposes)<br>Routine data extraction | Benin: 5 districts (*zone de santé*) and 7 hospitals<br>Burkina Faso: 6 districts and 6 hospitals<br>Mali: 8 districts (*cercles*) and 8 hospitals<br>Morocco: 6 districts (*delegation*) and 6 hospitals | WP3 (Local health system) |
| 9 | Policy Effects Mapping study (POEM) | District Health management team<br>Management team at the hospital<br>Health workers | Governance<br>Provision of care<br>Human Resources<br>Financial resources<br>Drugs and equipments<br>Health Information System<br>Patients & the community | Interviews with key informants<br>Documentary Review<br>Routine data extraction<br>Check-list/observation | Benin: Total of 85 interviews in 4 districts hospital, 2 private hospital,1 departmental hospital, 10 health centers<br>Burkina Faso:<br>Total of 57 interviews in 4 districts hospitals and 2 regional hospital and 12 health centers<br>Mali: total of 84 interviews in 4 regional hospitals, 4 district hospital and 16 health centers. | WP3 (Local health system) |

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|---|---|---|---|---|---|---|
| | | | | | Morocco: Total of 110 interviews in 5 districts hospital, 2 regional hospitals, 2 university hospital, 12 health centers | |
| 10 | Realist case studies | Districts hospitals | Actual implementation of the policy compared to official documents<br>Perceptions of managers on the challenges posed by the new policy<br>Mechanisms that explain the ownership and the implementation of policy at the operational level.<br>Contextual elements necessary for the policy to be effective | Interviews with key informants<br>Documentary Review<br>Routine data extraction<br>Using data from other WPs for triangulation. | 2 districts/ country (excluding Mali)<br>Benin: interviews from POEM<br>Burkina : interviews from POEM + 16 extra interviews to complete the analysis<br>Morocco: interviews from POEM | WP3 (Local health system) |
| 11 | Quantitative instrument on near-miss, caesarean sections and the quality of care | Women and newborns | 1. The outcome of hospitalisation<br>2. The demographic characteristics<br>3. The reproductive history<br>4. The causes of complications<br>5. The near-miss definitions for women and newborns<br>6. The indications for caesarean section<br>7. Delays in receiving care<br>8. Quality of care for caesarean section<br>9. Quality of care for all women | Medical records and records of admitted women in the maternity ward (normal deliveries, near-miss, caesarean sections) | Benin: 3,361 deliveries in total<br>Burkina Faso: 1,752 deliveries in total<br>Morocco: 3,134 deliveries in total<br>Mali: 6,386 deliveries in total | WP4 (Quality of care and health outcomes) |
| 12 | Quantitative analysis of secondary data | National | 1. Utilisation of facility delivery care<br>2. Trends in caesarean section rates<br>3. Equity of access | Regression analysis of data from routine annual statistics and nationally-representative household survey data | Benin: survey data for 1993-2011 (n=36,375)<br>Burkina Faso: routine data for 1992, 1998 2000-2010; survey data for 1988-2010 (n=36,836)<br>Morocco: routine data for 1997-2011; survey data for 1987-1992, 1998-2011 (n=16,679) | WP4 (Quality of care and health outcomes) |

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| 13 | Observation grid in health facilities | Health facilities | 1. Quality of care for all women<br>2. Quality of care for caesarean sections<br>3. Delays in receiving care<br>4. Communication between staff, patients and their carers<br>5. Resources (human, materials, etc.) | Participant observations in hospitals | Benin :<br>4 weeks observation in 2 hospitals<br>Morocco :<br>3 weeks observation in 2 sites | WP4 (anthropology) |
| 14 | Interview guide with women | Health facilities/ community (women) | Perceptions of quality of care<br>Perceptions of costs related to hospital delivery<br>Awareness of free care | Structured discussion but open with women after they return home | Benin:<br>44 C-section<br>9 Near Miss<br>9 “normal” deliveries<br>Morocco:<br>30 Near Miss | WP4 (anthropology) |

# Findings
## Background on policies

Less attention in the literature has been paid to issues of how maternal health policies come to be generated and shared (see Meessen et al. 2009; Ridde & Diarra 2009; De Allegri et al. 2010; Ridde, Kouanda et Yaogo 2010; Ridde & Morestin 2011; Ridde et al. 2011), instead more has been written about their implementation and the impact of user fees and their removal on users and health systems. The aim of one component of the research within FEMHealth was to go beyond policy content and "what happened" and explore the question of "what explains what happened", an area that, as Gilson and Raphaely (2008) point out in their review of literature on policy analysis in low and middle income countries, is often neglected.

To decrease maternal and neonatal mortality rates and increase facility delivery, policy makers in several African countries have recently instituted user fee reduction or abolition plans to improve access to healthcare for delivering women. Amongst the FEMHealth case study countries, different maternal health policies have been launched, acting on local contextual features which in turn shape reactions to the agenda of the international community of which they are a part. We ask why various reforms surrounding user costs for maternal health and delivery care have been introduced in many settings over the last decade. What can we learn about the political and social connections that latch together the region, which is made up of such varied contexts, as well as link it to external actors in the form of governments, funders and institutions?

The brief narratives of the emergence of the obstetric user fee policies in the four FEMHealth countries Benin, Morocco, Mali and Burkina Faso are illustrated below, before a comparative section looks at elements that cut across contexts to explore shared and different drivers of the policies.

### Context

In the early-mid 2000s, around the time of their policy discussions and implementation, Benin, Burkina Faso and Mali had slightly lower maternal mortality ratios compared to the sub-Saharan country average[1] – Mali: 464/100,000 in 2006[2]; Benin: 397/100,000 in 2006[3]; and Burkina Faso 484/100,000. All of these ratios had shown declines in the previous ten years to their policies, however not at a rate seen to be able to reach the targets set by the Millennium Development Goals (MDGs). The MDGs called to reduce by three quarters, between 1990 and 2015, the maternal mortality ratio and increase the proportion of births attended by skilled health personnel. The Morocco maternal mortality ratio at the time of the introduction of the policy was considerably lower - 227/100,000 overall (rising to 267/100,000 in rural areas)[4].

As with other measurements, the neonatal mortality rates varied, but pointed to Burkina and Benin having rates in the 30s & 40s per 1000 in the 2000s, with Mali being considerably higher in the 60s and Morocco lower with 28/1000 in 2003-4[5].

Caesarean section rates at the time of policy implementation in the three sub-Saharan countries were below the WHO/UNICEF recommendations of 5-15% for these settings. For example, in Mali CS rates were 1.2% of all births in 2001 and 1.7% in 2006; in Benin 3.5% in 2001 and 3.8% in 2006; Burkina Faso 0.7% in 2003. In Benin and Burkina Faso, wealthy women were more likely to have

[1] 740/100,000 in 2000 and 630/100,000 in 2005, according to the UNFPA.
[2] l'EDSM IV, 2006
[3] EDS III
[4] Maroc. EPSF 2003-2004.
[5] DHS data

caesarean sections than poorer women – as in Mali, but there the discrepancy between rates was less pronounced (Cavallaro, 2013). In Morocco this was the case as well – 16% of women in the wealthiest quintile had caesarean sections, while that percentage already dropped to only 1.5% among women in the second wealthiest quintile[6]. This will have influenced Morocco's overall caesarean section rate of 5.6% in 2003-2004.[7]

Facility delivery rates were notable across these countries in terms of a rural/urban divide – women in rural areas tending less frequently to seek out facilities to deliver than those in urban areas. This is not surprising when considering, for example, that in Morocco 30% of women had to travel ten or more kilometres to reach the nearest health centre. In terms of overall rates for facility births, Benin had the highest rate at 80% in 2006 with Morocco following at 63% in 2003-2004. In Mali and Burkina Faso under half the women gave birth at a health facility: both at 38.9% in 2001 and 2003, respectively. However, health centres were at least somewhat accessible and sought out outside of delivery periods: all countries showed a higher rate of women attending at least one ante-natal care consultation at a health facility than delivering in facilities[8].

In these contexts, socio-economic factors have a considerable impact on the resources available to women in labour and their ability to give birth in health centres. Low literacy and education rates, poor infrastructure (roads, electricity), long distances between homes and equipped (and adequately staffed) health centres, all impact on whether a woman will give birth in a health centre (Gage 2007; Moran 2006; Fournier 2009) - a step which the international community has decided as crucial for improved maternal health outcomes (Filippi 2006). A high poverty rate (approximately 50% of the population in Benin, Burkina and Mali live on under 1.25USD a day)[9] and a disempowerment of women to have access to information to make their own decisions regarding childbirth are also factors that play out to varying degrees in the contexts of these four countries. Financial obstacles contribute to these barriers (Freedman 2007; Richard 2007), and it is in addressing these points with subventions and the removal of obstetric user fees that decision makers sought to make an impact.

## Comparison of objectives

There was a consensus in the objectives of the policies across the four countries: all aimed to reduce barriers in financial access to delivery care and thereby reduce maternal and neonatal mortality. Women and their family's inability to pay for the services, or the decision to prioritise other payments over maternal health care, were decided to be crucial aspects contributing to limited access to services or delays caused once these services were accessed. The removal or diminution of these fees was thought to encourage women to deliver in health facilities.

Mali and Benin chose to address the financial barrier to caesarean sections only, including transport, while in Burkina Faso, it was determined that the costs of transport and services, and the mode of payment, were problematic for urgent care and a subvention was introduced to ease the financial burden for users by 80% for all delivery care, with additional support, in theory, for indigents.

Morocco's policy was explicitly further reaching, with the objectives elaborated along three axes: to reduce the barriers for women to obstetric and neonatal care, to improve the quality of pregnancies and deliveries; and improving governance.

[6] Circulaire ministérielle du 11 décembre 2008
[7] DHS data
[8] DHS data
[9] http://povertydata.worldbank.org/poverty/region/SSA

In Mali, the community was meant to cover certain costs linked to deliveries (transport to the facility, for example), while in Burkina Faso, the community contribution was the 20% co-payment by households.

## Comparison of drivers

The data from the country level and international interviews suggest that while international influences have been important in shaping the global climate which permeates the four case study countries, the decision-making and elaboration of the policies were created in a context of locally driven goals and objectives. These 'international' influences should not be read as only being 'northern', but rather as from around the world. Mexico, Uganda, and Thailand – all of whom instituted user fee exemption policies in the late '90s or early '00s – were among the lower-to-middle income countries cited as being examples that other countries took notice of in the next wave of user-fee removal policies and when building their own policies.

Having gone full circle in many of these countries from free health care, to user fees, and now back again to selective fee removal policies, donor advice was given a new rank – one that became interpretable and malleable as aided countries gathered more resources to rally technical and financial support through other sources.

In the case of the sub-Saharan countries, an international level informant working in agencies expressed a distancing of the direct lines of policy control between western /northern aid agencies and low-income countries.

*"… I think word was getting out, around Africa, that this policy [charging user fees] was mad… To remove fees was good for the health sector and also brought big political benefits. And I would say this whole thing has been a politically driven process rather than a technical one, and that remains to this day. […] I think a lot of developing country governments now are rather sceptical about the advice they're getting from development agencies, because in many respects, we forced them into this in the first place, so for us to now turn around and say 'oh no, you shouldn't do that, you should remove them' – I think that people are sceptical about a lot of the advice that we are providing."* – Consultant with international agencies, global level (GL1)

This same informant suggested that sub-Saharan African countries (and amongst these, especially the Francophone countries) were more attached to the 1987 Bamako Initiative, which, as part of a larger package had called for the community cost-sharing programs in health and the reinstatement of user fees at the point of service (Lagunju & Papart 2013). Since the first effects of that approach had made their appearance in the form of poor health indicators and still substandard health centres, even with the influx of funding from the user fees and community support, advocates had been peeling away from the strategy and back to free care, though in stages. While some other sub-Saharan countries began implementing user-fee removal policies earlier in the decade, the four countries in this study may have been more attached to the agreements of the Bamako Initiative, both due to geographical and political alliances as well as the language divide – which interviews on current policy exchange indicated played a role in facilitating or hindering exchanges across published and networking (oral) communications.

In Morocco, as elsewhere, an informant recalled that actually the new initiative was one that harked back to the previous era: "It was only [recently] that the department of hospitals and emergency care decided to charge for delivery care: so, in fact, this new policy is a return to the old situation." Fees had been instated by the Direction of Hospitals to respond to budget concerns as an important

source of revenue, and to remove them again involved the political commitment for the re-designation for funds and other income generating strategies.

Out of the interviews with key informants across the countries, some, and most notably Burkina Faso, had received advice and support in terms of both the need for a policy and its design from international agencies (the World Bank, UNICEF and others).

### *MDGs*

All four countries had subscribed to achieving the Millennium Development Goals, which in 1990 called for the reduction of maternal mortality by two-thirds before 2015. The MDGs were said by informants in all countries to play a role in the decision-making for the policies, but these were recognised at different times and different responses were sought. In some cases particular studies or political circumstances brought about events leading to the policies, as described further on. In these countries we can see that the policies that are the focus of this research have been built on top of previous stones that have been laid, and are surely but one step on the route to other proposals and solutions to more financially accessible obstetric healthcare.

Before these particular policies, user fees had garnered attention in other domains and corresponding strategies were put into place along the way – such as cost sharing systems for emergency care relying on the participation of communities and local authorities (Burkina Faso), and assistance to family planning (Benin). Furthermore, within certain countries, selective exemption policies were already active especially for vulnerable populations (such as children under 5) or specific illnesses (malaria, HIV). As follows, identifying pregnant women as a vulnerable group, in particular in light of the MDGs, may have been considered a logical decision, as none of these countries had a universal health care system in place.

### *Individual actors and political manoeuvring*

Whether on the international or country-level scene, for these obstetric user fee policies individual commitment on the part of a few key actors was seen to have a great impact on the realization of the design and implementation of the initiative.

Unlike in Behague's (2009) research where interviewees working in the field of maternal health in low-income countries asserted that decision-makers were unable or unwilling to go against international (read: donor) recommendations for policy lines, this data shows a platform has emerged in which actors are able to assert their visions and call upon extended internal (and in some cases external) networks to do so, in terms of the particular design of the policies and their scope of inclusion.

Some informants at both the country and international levels consider the maternal health user exemption fee policies to be political rather than technical. This is especially the view of representatives of aid agencies when explaining their absence from the decision making process. Therefore in the political arena, strong personal initiative was cited as being critical to the creation of the policies. In Benin and Morocco the president and the minister of health, respectively, were accorded responsibility in initiating the policies and seeing through their implementation.

For example, after numerous strategies in maternal health failed to get off the ground, a breakthrough occurred when the project was taken under the wing of the new Minister of Health, Yasmina Baddou, the first female in this position in Morocco, in office from 2007 to 2012. Her initiative and dedication were cited by informants as critical in making maternal health a political priority and assigning adequate resources that had previously been lacking. She is also credited with

having been able to secure and mobilise funds to create a more cohesive package rather than the earlier smaller-scope interventions. Some interviewees stated that it was a "feminine issue for a female minister," and that the minister's personal will created a political will that enabled this area to see the success it did in terms of funding, programmatic interventions, and political visibility. In addition, at this time the public (general population) was waiting for strong signals in social welfare matters, and this was an opportunity to fulfil expectations in a specific domain. At this point the RAMED, the health coverage plan for the poor which was scaled up in 2012, was not yet in place and an informant suggested that a limited maternal health coverage was introduced as a temporary measure to address critical gaps in access to care. In the end, a powerful case developed and supported by a committed individual played off the political climate and created favourable circumstances for the policy to be seen through.

In other countries, notably Benin, the policy was seen to be a part of the President's campaigning to gain popular support before the elections for a second term. As the story is told, in 2008 Boni Yayi was visiting a hospital as part of a press tour and encountered more than 20 women "held captive" by the hospital administration in a separate room. Upon inquiring why they were there and hearing them respond that they were unable to leave as they owed money for their caesarean sections, he immediately paid off their debts from his own pocket and declared that all caesarean sections would from that point forward become free of charge. While the technical aspects of how this policy would be implemented were unresolved at this point, the discussions surrounding the moral underpinnings and the feasibility for such a policy had already been opened up years before, which facilitated his authority in asserting the institution of the policy. Informants close to Yayi and in the ministry indicated that this initiative fit into the objectives that he set for himself upon forming the government in 2006. One of these, within the scheme of development strategies, was to better the country's "human capital". "The first concern was to direct Benin to its development, which cannot be done with poor human capital," stated one ministry official.

These two examples show us that the political climate took the lead in determining the policies in some contexts, whereas in others elections and the current political climate made it possible for this sort of change.

### *The use of evidence and public opinion*

Conceptualization and policy development processes for the countries varied. For some, before the decision was taken to introduce some form of policy, the evidence was studied and analysed to develop the strategy (Burkina Faso, Morocco) – for others it appeared to be the inverse (Benin, Mali). Given the lack of research specifically on this topic, experiential knowledge was given a greater role, which meant that personal voices and political positioning was influential in what was considered and given a platform.

Politically based policy-making (Evans and Edwards 2011), where governments select evidence (or commission studies that will produce usable evidence) that supports the decision they already intend to make, did not seem to be so much at play in the Benin context, for example, where opposition to the free caesarean section policy was not vocal or did not challenge the proposal in a meaningful way, nor in Burkina Faso. Rather, in the latter, evidence was used to support the policy design at the level of detail, but not to inform the macro level decision making process. As in all the countries, the statistics were known about the financial barriers contributing to the poor access to health services, which influenced the perception of a need for a policy, but there was a lack of evidence as to the actual effects of various user-fee subvention or removal strategies in other contexts to inform the planning on how to proceed.

As such, the steps on the path to the design of the policy in Burkina Faso were to undertake an international document review on any subvention policies in maternal health, conduct interviews with key actors at regional and national levels and carry out simulations as to the number of expected deliveries (with and without complications) and their associated costs to calculate a feasible strategy. The ministry was supported in the development of the terms of the policy with technical advice from international organisations.

Studies reporting Moroccan maternal mortality statistics played an important role especially in influencing the scope in comparison with other countries. These statistics were considered a development indicator, and Moroccans felt embarrassed by the comparison with neighbours, according to some informants. Morocco measured themselves against their neighbours (i.e. Algeria) in the region and saw that they were behind. Notably, there was also an emotional aspect: the terms *pride* and *shame* were evoked when relating the feelings that arose in the comparison. Why, at similar income levels, had Morocco attained a lower rate? The stark statistics made it clear to even non-medical actors that fulfilling the MDGs was going to be impossible if concrete steps were not taken.

For the design of the Benin policy, Mali, Ghana, Niger and Morocco, who had taken similar steps some years previously, were said to be inspirations for lessons learned. Here we see that the influence of other countries in the region served as a motivation, but also that lessons from other countries tackling the removal of user fees for all health care services or selective policies were incorporated as a guide for action in the development of the policies.

Beyond the political cachet provided by the schemes, the reasons for the choices in relation to design (e.g. the decision to focus on caesarean sections only in Benin) appear to have been determined by the costs of the initiatives: financial considerations meant that schemes were scaled down in order to fit the budgetary capabilities and context. To elaborate further on the example of Benin above, the president had in fact called for a plan to render free both the care for under-5s and pregnant women (inclusive of delivery fees). However, after this public announcement and a subsequent feasibility study, it was determined that the government could only afford to cover the costs of caesarean sections at that stage.

## National level implementation arrangements

Multi-sectoral groups made up of members from various Ministry departments, professional bodies hospitals, and technical consultants were created to follow the implementation of the policy. These groups met at regular intervals - weekly in Benin, biweekly in Morocco, quarterly in Mali - and were assigned the role of implementing and monitoring the policy's impact. These committees had similar multi-pronged objectives to the Benin one, where, within the Ministry, an agency dedicated to the policy was created (L'Agence Nationale pour la Gratuité de la Césarienne (ANGC)) with the following roles: a) strategize for the implementation of the policy in Benin, b) plan, follow and evaluate the implementation and c) manage and direct the necessary financial resources for public, private, confessional and cooperative hospitals to be able to carry out caesarean sections within the scope of the policy.

Similarly, in Morocco, a National Commission for the Reduction of Maternal Mortality was in charge of implementing and assuring the proper continuation of the policy, although in fact, the Department for Hospital and Ambulatory Care (DHSA) led the implementation of the policy. There was one person in charge of the monitoring (+ the setting up of the maternal death surveillance) and another one to audit the 'maisons d'accouchement'. The National Commission was kept periodically informed of progress. However, only Benin had a dedicated agency. In Burkina, there was one focal

person, who carried the entire burden of supervising the implementation of the policy. No additional staff were assigned for this task at national level.

The issue of the possible need for executing the national implementation of the policy differently across a country's regions came up in a few of the settings. Even within countries, considerable regional, cultural, economic and rural/urban variances meant that the policy could not necessarily be rolled out in a uniform manner. Taking the case of Morocco, there was debate as to whether in fact the policy should designate its impact across the country with universal objectives and activities or whether it should be specific to the different contexts of the regions. With a centralized system, not only could the policy miss regional targets, but the government could be left with too great a responsibility for its implementation and success. In the end, the national policy was translated into regional policies, guided by regional committees established to implement the policy and monitor health indicators at maternity care facilities. The audit component mentioned above, a tool whose potential is realised by each individual hospital through the recommendations and action plans generated, is also meant to address the concerns about responding to contextual particulars and variation. However, the policy was implemented as a single national policy in all of the studied countries; even in Morocco, where regions were given some scope to take ownership, there was no significant local direction in the end.

Supervision and evaluation was planned as a part of these groups' work but tended to be carried out less frequently than envisioned (for example, in Mali the twice-yearly supervision tended to be carried out once a year).

## Design of the policies

### The package on offer

While there are many common elements, the policies differed in some respects. The government in Burkina Faso opted for a subsidy policy supporting 60 to 80% of the costs of obstetric and neonatal care in all public health facilities in the country. This initiative differs from what is in place in Morocco where normal delivery and caesarean sections are totally free at all levels of public hospitals. The policies in Benin and Mali are also different from the Burkinabe one since they are based on 100% reimbursements of caesarean and some complication costs alone (Table 2).

**Table 2 Package of care covered by the exemption policies, all countries**

| | Morocco | Burkina Faso | Mali | Benin |
|---|---|---|---|---|
| Prenatal care | | | | |
| Deliveries | | | | |
| Episiotomies | | | | |
| Complications in pregnancy | | DOC | DOC | |
| Complications during labour | | | | |
| C-section | | | | |
| Other surgery | | | | Hyst+EUP |
| Postnatal care | | | | |
| Postnatal complications | | | | |
| Postnatal family planning | | | | |
| Post abortion care - simple | | | | |
| Post abortion care - complicated | | | | |
| Newborn care | | | | |

*DOC = direct obstetrical complications / Hyst = hysterectomy / EP = ectopic pregnancy*

included in the new policy
Free of charge through another policy
not free fof charge/to be paid

*Source: document review and key informant interviews*

Burkina Faso and Morocco cover a comprehensive package of services: Caesarean sections, other obstetric complications (be it only direct obstetric complications in Burkina Faso), and normal deliveries are covered by the policy, as well as abortion complications (added late in 2012 for Morocco, where the package was not clearly defined at the time of introduction of the policy in 2008). Mali and Benin on the other hand have a very limited range of exempted services. In Mali only direct obstetric complications during pregnancy or labour, and caesareans sections are covered. In Benin solely caesarean sections, hysterectomy and ectopic pregnancy are included in the fee exemption policy. The care of sick newborns delivered by caesarean section, although part of the act, is not covered under the policy in Benin, according to the official documents (Decree No. 2008-730 of 22 December 2008). In Burkina Faso, intensive care for newborns up to seven days after birth is included in the package of free services. In Morocco, neonatology departments were strengthened and newborn care (both standard and intensive) is included in the package of free services. In Mali newborn care was not included.

The wider context and links with other policies also varied. In Morocco for example, there already existed a pro-poor gratuity before the introduction of the free caesarean and delivery policy at the end of 2008. Indigent people with a certified document were supposed to receive free hospital care. However, many poor did not have access to this document, and even when they did, they still were asked to pay something for drugs or care given at the hospital (Hodgkin et al. 2005). The free caesarean and delivery policy was designed to respond more effectively to the need to lift the financial barriers to health care for the poorest. It was part of a very comprehensive and complete national health plan, and was supported by a number of accompanying measures: the provision of additional drugs and equipment, free transport in case of referral, reinforcement of human resources, 'humanization' of maternity wards (e.g. air conditioning, rehabilitation and refurnishing, allowing one relative to stay with the mother during delivery, keeping the baby with the mother, more interaction between clients and health care providers during the mother's stay in the hospital

etc), obstetrical emergency services including a rural ambulance system and reinforcement of antenatal care (4 instead of 3 antenatal consultations and free standard laboratory tests).

## Sectors

While in three countries the policy focussed mainly on the public sector, in Benin, private (religious or associative) non-profit hospitals licensed by the state, with adequate technical facilities and offering the services being subsidised or being offered for free nationwide, were also included. Recently, some private for profit organisations have also been accredited.

## Cost elements

All medical costs associated with the target services within hospitals (and health centres in Burkina) were included in principle in the package (Table 3). For Morocco, food within the hospital was covered, but this was not the case for the other countries.

**Table 3 Type of costs covered per target group in the four FEMHealth countries**

| | Morocco | | Burkina Faso | | Mali | | Benin | |
|---|---|---|---|---|---|---|---|---|
| Transport from home to referral centre | Pilot | Pilot | | | | | | |
| Referral | | | | | | | | |
| Laboratory tests | | | | | | | | |
| Radiology | | | | | | | | |
| Echography | | | | | | | | |
| All drugs | | | | | | | | |
| Obstetric drugs only | | | | | | | | |
| External consultations | | | | | | | | |
| Hospitalisation costs | | | | | | | | |
| Medical care | | | | | | | | |
| Surgical care | | | | | | | | |

*Pilot: Pilot districts in rural area (SAMU Rural)*

Mother Newborn

*Source: document review and key informant interviews*

Transport costs for referrals are borne by the government in Benin, Burkina Faso and Morocco. However in Mali, the transport costs from the CSCom (Community Health Centre) to the CSRef (District hospital) are supposed to be funded by the Community. Furthermore, while ambulances are generally available at the CSRef in Mali to transport women from the CSCom to the relevant referral hospital, the fuel and maintenance costs fall under the responsibility of local authorities in accordance with the conceptual framework for referrals. The households on the other hand have to pay for transport costs to the health facility and the journey back from health facility to their place.

In Benin, transport costs are in practice rarely reimbursed by the free caesarean policy. This might be partly explained by the fact that the hospitals (receiving the subvention in Benin) do not feel responsible for the health centres and the costs they carry, while the district management teams (managing the subvention in Burkina for example) do feel responsible for both hospitals and health centres. Of the four studied countries, Morocco has the most complete package in theory, including,

in addition, some pilot projects with rural emergency transport services covering patient transport between home and the first line health structure.

Within hospitals in each country, the package was interpreted differently. An example of this is given from Benin in Table 4. Of 14 items which were mandated or implied by the policy, hospitals provided between 4 and 11 completely free, according to key informant interviews with managers. For Morocco, 4-5 out of 6 items were provided fully without charge within our study hospitals. For Burkina Faso, few understood newborn care or post-abortion care to be part of the package and there was no free care provided for these services.

**Table 4: Services reported to be free to women needing caesareans in seven hospitals in Benin, 2012**

| Elements of cost | CHD B | HC D | HC C | HZ G | HZ E | HZ A | HZ C F | Hospitals where the item is free |
|---|---|---|---|---|---|---|---|---|
| Intramural referral | | | | | | | | 2/7 |
| Perfusion before referral | | | | | | | | 0/7 |
| Consultation | | | | | | | | 2.5/7 |
| Caesarean section (the act) | | | | | | | | 6.5/7 |
| Drugs | | | | | | | | 4/7 |
| Consumables | | | | | | | | 4.5/7 |
| Hospitalisation | | | | | | | | 6/7 |
| Post-surgical control | | | | | | | | 6.5/7 |
| **The first 8 items are those listed in the decree concerning free cesarean section in Benin. The following 6 items are not listed in the official texts of the policy but are subject to interpretation for the health staff in Benin implementing the policy.** | | | | | | | | |
| Pre-anaesthetic consultation | | | | | | | | 5/7 |
| Pre-surgical paramedical examination | | | | | | | | 4/7 |
| Blood transfusion | | | | | | | | 1/7 |
| Anaesthesia (the act) | | | | | | | | 6/7 |
| Administration of Vit K1 | | | | | | | | 7/7 |
| Other newborn care | | | | | | | | 1/7 |
| **Free items on the total number of items** | **6.5/14** | **4/14** | **6.5/14** | **9.5/14** | **11/14** | **8.5/14** | **10/14** | |

Free Sometimes free Not free

*Source: Key informant interviews*

## Financing of policies

### Source of funds

In all four countries, the policy is financed almost entirely by the state, with a notable absence of direct donor financial support. However, there is considerable indirect support via general donor funding to the sector in two of the countries: according to the National Health Accounts, donors contributed up to 36% of the total expenditure on health in Burkina Faso in 2005, and 21% in Benin in 2005. For Mali, however, it was only 14% in 2005 and even lower in Morocco - 0.5% in 2007 (Health Expenditure series, WHO 2014).The financing of the subsidy policy in Burkina Faso is based on credit lines granted to the Directorate for Family Health (Direction de la Santé de la Famille) and is mainly (99%) financed by the government. The financial allocation for a given year is included in a budgetary line « Subvention des accouchements et des Soins Obstétricaux d'Urgence » in the state budget. In Benin, the financing of the exemption policy comes entirely from the budget of the

Ministry of Health. A budgetary line "free caesarean section" was created in the Ministry's budget. Similarly, the state is entirely responsible for the financing of the exemption policy in Morocco.

### Reimbursements systems

Health facilities in Mali are reimbursed for caesarean sections and the policy is based on a cost-sharing system between Community Health Associations (ASACO), municipalities, councils and CSRefs. Two different caesarean kits: the simple caesarean and the complicated caesarean kit are provided in Mali with the main difference being the amount of drugs available for a complicated caesarean. The renewal of kits is done every six months. In addition to the kits, health facilities in Mali receive 30,000 FCFA for a simple caesarean section performed and 42,000 FCFA for a complicated caesarean section performed. These costs are borne by the government and health facilities are reimbursed every trimester upon production of the following information:

- An extract of the operating theatre register;
- An extract of the hospital register;
- The referral or self-reference cards;
- Admission cards;
- Exit cards;
- The invoice issued by the pharmacy of the health facility.

In Burkina Faso, health facilities were initially meant to be reimbursed a fixed cost of 3,600 FCFA for normal deliveries, 14,400 FCFA for complicated deliveries and 44,000 FCFA for caesareans, although this soon changed to reimbursing actual costs. The health facilities are supposed to receive a 100% reimbursement for the indigent population, though in practice our research found no evidence that this was being followed. Households contribute 20%, or 40% of costs if they self-refer for normal deliveries at regional or university hospitals.

The DSF is responsible for refinancing health institutions at the national level (CHU) and regional (CHR) as well as district biannually. The district is responsible for repaying the peripheral health facilities (CMA, CM and CSPS). The reimbursements to health facilities are made upon presentation of proof of funds spent to support the EMONC cases every trimester.

The mode of payment under the subsidy policy evolved since the policy was introduced. It went from a fixed subsidy per service to one based on a proportion of actual sums spent by hospitals for the EmONC (Arrêté Interministériel No. 2012).

In Benin, the ANGC reimburses 100,000 FCFA per caesarean section. Before the payment, the ANGC conducts a monthly consultation among the hospital staff to harmonize the statistical data of the monthly list of beneficiaries. This list and the records of the operating theatre are carefully examined. Due to these processes, it can take from one to four months for reimbursements to arrive. In Burkina Faso, there were some irregularities in the reimbursements which were translated by overpayments in some years and underpayments in others. Many factors may have contributed to these delays: it could either be because of the administrative burden of verifying all the documentation and prescriptions before issuing the reimbursements or it may be that the hospitals take long to produce proof of amounts spent under the policy. The funds seemed to reach hospitals on time in Morocco, except for 2011, when hospitals did not receive any funds at all for the whole year. There was no evolution in the mode or amount of payment over the years in Benin, nor any variation across facility types, a feature which caused tension in the context of different hospitals claiming to need differing amounts (see below).

Morocco has pursued a completely different financing mode, which does not rest on payments per service delivered (unlike the other three countries). Instead, as part of the implementation of the

2008-2012 Moroccan Action Plan for the Reduction of Maternal and Neonatal mortality (Plan d'action santé 2008-2012, 2008), including the introduction of free delivery in public hospitals for uninsured patients, 68 million MAD was mobilized by the Ministry of Health in Morocco and given to hospitals in the form of a cash grant to offset their loss of income in 2009. This figure increased to 75.5 million MAD in 2010 (due to an increase in the number of hospitals). The additional sum of money was calculated on the basis of 24% of the hospital's revenues. It was an operating assumption that 24% of hospital revenues on average come from the maternity department.

Unlike the other countries, in Morocco hospitals receive the funds directly from the central level once a year. In Morocco, two types of kits are provided: the kits for normal delivery and the kits for episiotomy. In addition, other investments were made as part of the Maternal Action Plan, including for additional staff and equipment.

## National budgets

The budget allocated for the exemption fee or subsidy policy across the four countries has increased since the year the policy was launched (Table 5). In Burkina Faso for instance, the total budget allocated for the implementation of the subsidy policy for the EmONC was approximately 14,512 million FCFA from 2006 to 2011. There has been a gradual increase from approximately 2,251 in 2008 to 3,180 million FCFA in 2011. The total budget dedicated to the 'indigent' also increased proportionally to the total budget for normal deliveries and emergency obstetric care, from 375 million FCFA in 2008 to 530,000,000 FCFA in 2011. In Burkina Faso, 20% of the total annual budget for the subsidy policy is allocated to the care of the 'indigent'.

In Benin, a sum of 2,531,340,000 FCFA was initially budged for the policy in 2009, this increased to 2,912,951,773 FCFA in 2010 and stabilised around 2,515,995,119 FCFA in 2011. The budget disbursed in 2009 and 2010 was 1.5 billion and 1.7 billion FCFA respectively. The financial flow tracking data showed that there was a surplus of 454,134,303 FCFA in the budget versus the expenditure in 2009, there was a deficit of 118,538,396 in 2010 and a surplus of 107,591,223 FCFA in 2011.

In Morocco, to support the implementation of the 2008-2012 Action Plan, a budget of 1,379,765,000 MAD was set for 5 years (of which 782.4 million MAD was reserved for free EmONC, with a budget split between operations and investment) (FFT data). The sum allocated in the policy budget for the kits and drugs to the maternity departments was 63,600,000 MAD per year as from 2009.

**Table 5 National budget for the exemption and subsidy policies, three countries (in Euros [10])**

| Country | 2007 | 2008 | 2009 | 2010 | 2011 | Total |
|---|---|---|---|---|---|---|
| **BF** | 6,263 | 4,003 | 4,621 | 5,266 | | 20,152 |
| **Benin** | | | 3,859,003 | 4,440,766 | 3,835,609 | 12,135,378 |
| **Morocco** | | | 6,061,003 | 6,729,496 | | 12,790,499 |

Note: Data was unavailable for Burkina Faso in 2011 due to incompleteness of records. In Mali, the budget allocated for the policy was reported to have evolved from 930,413 FCFA in 2009, to 1,028,106 FCFA in 2010 and 1,058,949 FCFA in 2011, but these figures do not seem accurate.
*Source: FFT tool*

1 Conversion rate from FCFA to Euros and from MAD to Euros, using XE Currency Converter: http://www.xe.com/ [accessed 09.01.14]

## Overall expenditure on the policy

The total reimbursements to health facilities across Burkina Faso increased from approximately 2,297 million FCFA from 2006 to 2,888 million FCFA in 2011. This increase in expenditure was notable from 2008 to 2010 respectively, i.e. from approximately 1,671 to 3,852 million FCFA in 2010. However, there was also a significant drop in reimbursements to health facilities in 2011.

The reimbursements for the policy increased between 2008 and 2010, with however a decrease of approximately 25% in 2011 in Burkina Faso (FFT data). The reimbursements in 2010 exceeded the budget for the policy by around 892 million FCFA. Any surpluses are not sent back to the DSME but remain as credit lines for subsequent years.

The average expenditure per delivery between 2006 and 2011 in Burkina Faso amounted to 9,500 FCFA. The expenditure was much higher at the start of the policy with 14, 484 FCFA spent per delivery in 2006 compared to 10,190 FCFA in 2011.

The total reimbursements in Benin also increased from 2009 to 2011. There was a gradual increase from 1,225 million FCFA in 2009, 1,859 million FCFA in 2010 to a peak of 2, 107.4 million FCFA in 2011. The management costs represented 1.5% of the policy budget in 2009, 3.4% in 2010 and 3.5% in 2011.

Table 6 shows the large differences in scale of investment and unit costs of the policies. While the government spent from 9-17 Euros per delivery over the lifetime of the policy in Burkina Faso (with the amount per delivery increasing each year), the equivalent for Morocco was more than 800 Euros in Morocco (reflecting the much broader range of investments and assuming the budget was respected). Mali's expenditure per caesarean is extremely low and probably reflects accounting problems. For Benin, the expenditure per caesarean rose fell from 244 Euros in the first year to 163 in the third year of operation.

**Table 6 Expenditure per caesarean section/delivery across three countries (in Euros)**

| Country | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|
| **Burkina Faso-total expenditure** | | 3,501,754 | 2,547,423 | 3,268,507 | 5,872,335 | 5,655,858 |
| All deliveries | | 161,127 | 288,283 | 347,645 | 386,936 | 330,487 |
| Expenditure per delivery | | 21.73 | 8.84 | 9.40 | 15.18 | 17.11 |
| **Benin – total expenditure** | | | | 2,992,188 | 4,192,867 | 3,442,149 |
| No. of CS performed | | | | 12,250 | 18,589 | 21,074 |
| Expenditure per CS | | | | 244.26 | 225.56 | 163.34 |
| **Morocco - total expenditure** | | | | 24,596,353 | 24,596,353 | 24,596,353 |
| All deliveries | | | | 28,776 | 28,345 | 30,877 |
| Expenditure per delivery | | | | 854.8 | 867.7 | 796.6 |

*Source: FFT data and SNIS*

*Note:* Mali has been excluded as the expenditure data was not credible

### *Expenditure on normal deliveries (Burkina Faso)*

Although the average expenditure on normal deliveries in Burkina fluctuated between 2006 and 2011, there was no significant differences between the annual expenditure ($p < 0.05$), which averaged 3,699 FCFA for the period considered. There was also no statistically significant difference in the distribution of average expenditure on normal deliveries among the different regions ($p > 0.05$) from 2006 to 2011. The average expenditure on a normal delivery at the CHU level was about 4,400 FCFA. The expenditure for normal delivery per capita has remained more or less stable around 2,400 FCFA from 2007 to 2011 in the districts, except in the district of Gaoua where it was higher. It is believed that a fairly clear and uniform definition of normal deliveries and a fairly uniform understanding of the policy could justify the similarity observed.

### *Expenditure on caesarean sections*

The average expenditure per caesarean section for all hospitals types in Burkina Faso from 2006 to 2011 was 40,943 FCFA. The average expenditure for caesarean sections at the CHU level in Burkina Faso from 2006 to 2011 was around 50,000 FCFA. Apart from the year 2011, when it was 20,500 FCFA, the average expenditure per caesarean section was as steady for all the health districts at approximately 33,000 FCFA. No statistically significant difference was recorded for the average expenditure per caesarean section at the district health centre for the period from 2006 to 2011.

In Benin, a fixed sum of 100, 000 FCFA per caesarean section is reimbursed to hospitals regardless of their status.

## Sustainability of funding

During the first 5 years of implementation of the policy, the total expenditure for the EmONC in Burkina Faso (excluding administration and equipment, etc.) as a percentage of total public health expenditure averaged 2%, though it reached 3.7% and 3.5% in 2010 and 2011 respectively (Table 7).

In Benin, the share of the budget of the Ministry of Health allocated to the free caesarean section policy has increased slightly between 2009 and 2011, from 1.1% to 3%.

The proportion of additional budget allocated to the exemption policy in Morocco compared to the overall budget of the Ministry of Health is on average 2.8%. Overall, the expenditure on the policy as a percentage of the total public health expenditure has remained stable over the last four years.

**Table 7 Overall expenditure on policies (Euros)**

| 2006 | | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|
| **Expenditure per person on the policies** | | | | | | |
| **Burkina Faso** | | 3,501,754 | 2,547,423 | 3,268,507 | 5,872,335 | 5,655,858 |
| Total Population | 13,822,257 | 14,235,075 | 14,659,646 | 15,094,967 | 15,540,284 | 15,995,313 |
| Cost per person | | 0.25 | 0.17 | 0.22 | 0.38 | 0.35 |
| **Benin** | | | | 2,992,188 | 4,192,867 | 3,442,149 |
| Total Population | | | | 9,240,783 | 9,509,798 | 9,779,795 |
| Cost per person | | | | 0.32 | 0.44 | 0.35 |
| **Morocco *** | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | 24,596,353 | 24,596,353 | 24,596,353 |
| Total Population | | | | 31,276,564 | 31,642,360 | 32,059,424 |
| Cost per person | | | | 8.82 | 8.72 | 8.61 |
| **National Expenditure on Health** | | | | | | |
| **Burkina Faso** | | 117,681 | 126,341 | 151,397 | 156,806 | 161,311 |
| **Benin** | | | | 169,851 | 125,712 | 105,423 |
| **Morocco** | | | 725,497 | 872,828 | 989,794 | 1,021,952 |
| **Proportion of national health expenditure absorbed by policy** | | | | | | |
| **Burkina Faso** | | 3.0% | 2% | 2.2% | 3.7% | 3.5% |
| **Benin** | | | | 1.1% | 2.3% | 3% |
| **Morocco** | | | | 2.8% | 2.5% | 2.4% |

*Note: For Morocco, actual expenditure figure are not available. These figures are based on the Action Plan budget, split over five years. The actual expenditures will have differed. The majority of the Action Plan budget is allocated to the free delivery care investments.
*Source: FFT data and World Bank 2014 data (for population figures)* http://data.worldbank.org/indicator/SP.POP.TOTL

## Effects on health systems

We first considered the effects on the different health systems blocks.

### Human resources for health

For HRH, we investigated the absolute numbers of staff in relation to workload – were they adequate? –and also how they had changed over the period of introduction of the policies. While changes cannot be directly linked to the policies, these policies may have played a role and in any case will be affected if staffing numbers are not adequate, or if workload has reached unmanageable levels. We also consider the changes to remuneration and how staff perceive the policy. The underlying hypothesis is that if staff are not accommodated during major policies changes such as these national free care policies, they will be able to subvert their effectiveness, for example, through coping strategies which pass costs back to users in some form. This has been documented in some other contexts (Witter et al. 2010).

### Adequacy of number of staff

Expecting an increased workload following the free caesarean section policy, several hospitals in Benin have recruited additional staff (anaesthetists, gynaecologists, midwives and nurses) or have given the responsibility of the maternity to one single general practitioner, as was not the case before the policy. These measures meant to improve the availability, volume and quality of supply.

In Burkina Faso, 6 out of 10 health workers interviewed reported that the subsidy policy was not accompanied by an increase in sufficient numbers of additional health workers. More generally, health workers reported an increase in administrative paper work and many thought that additional personnel should be recruited to address the increase in administrative workload. Health workers in Burkina Faso reported that the state should improve capacity by strengthening the training delivered to the existing personnel.

In Mali, health workers claimed that the staff was sufficient to deal with the changes brought about by the policy. Indeed, at least 6 out of 10 health workers in each professional category affirmed the sufficiency of the number of staff for the management of patients.

In Morocco, the injection of qualified staff which was part of the accompanying measures of the free obstetric care policy was demonstrated by the deployment of 689 midwives between 2008 and 2010, the increase in the number of admissions for the training course in midwifery (from 168 in 2007 to 530 in 2010) and the increase in the number of positions reserved for housemen in 2008-2009. These were respectively per specialty: 80 positions in gynaecology and obstetrics (against 50 in 2007), 74 in paediatrics (against 35 in 2007) and 54 in anaesthesia and reanimation (against 41 in 2007).

In the Moroccan study sites, the rate of assisted deliveries has increased by 32% (as in Settat). In all study sites the number of gynaecologists has not increased more than up to one per site between 2008 and 2011, while the number of midwives has increased slightly.

### Workload

Half of health workers interviewed reported working at least 47 hours (0-96) in a week on Burkina Faso. They also said that they saw at least 60 (6-280) patients and carried out at least five (1-30) deliveries in the week. Among the health workers, midwives and attachés de santé reported the highest median number of hours worked weekly. In addition, midwives equally reported the most patients seen weekly. This could explain why it is in the CSPS that the working hours seem to be highest, as midwives mainly work at the CSPS level. Moreover, more patients were also seen at the CSPS level compared to the other facility types. Another factor is the limited number of health workers in the CSPS (3-5 health workers) compared to the CMA or CHR.

The median working hours in the normal working week is 40 hours per week for health workers surveyed in Mali. There is little variation in the median hours of work per week number by professional category or type of structure. Instrumentalists (56 hours per week) are those who reported the highest median number of hours in the normal work. In terms of being on call off-site ('astreinte'), health workers work a median of 6 hours per week. With regards to on-call work in the facilities ('garde'), the median hours per week is 24.

Over 87% of health personnel in Morocco reported working an average of 48 hours weekly (15-88). They also said they saw an average of 60 patients during the week (1-480) and conducted on average 24 (01-200) deliveries weekly.

Among health personnel, the junior doctors reported working hours a higher median number of hours and doing the most deliveries weekly. Gynaecologists and midwives come just after the junior doctors with equal number of deliveries done per week. However, nurses and doctors were the ones who reported the most patients seen weekly.

The median number of weekly working hours was the same for the different types of hospitals in Morocco. However, the CHR and CHP staff indicated seeing the most patients during the week with 90 (1-40) and 80 (8-160) patients respectively compared with only 24 patients at the CHU level (8-300). Similarly, most deliveries were conducted in the CHP and the CHR with a median number of deliveries of 28 (0-80) and 30 (0-200) per person respectively during a week, while CHU staff did a median of 15 deliveries weekly (0-100). This could be explained by the reduced number of personnel in the CHP and CHRs in Morocco.

In Benin however, the median working hours was 48 hours for all the health workers interviewed. Interestingly, there was not much variation in the median working hours between the doctors, midwives and nurses who all reported doing a median of 48 hours weekly. Similarly, there was no significant difference in the number of working hours per professional category depending on whether they worked in the public or private health facilities.

**Table 8 Average number of hours worked, patients seen and deliveries done weekly per staff member, by professional category, across countries**

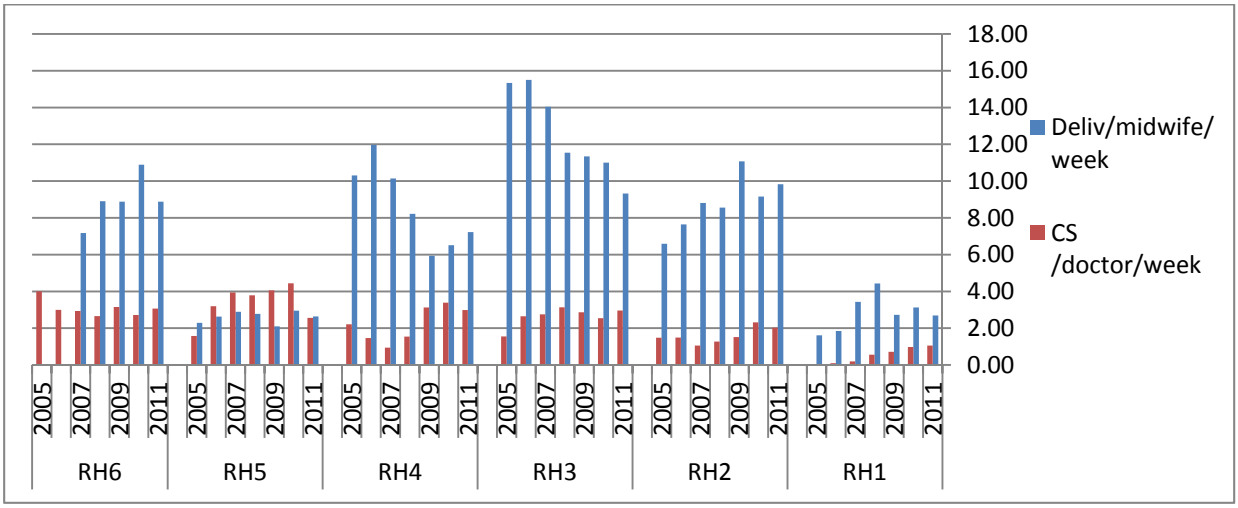
| Country | Professional category | No. of hours worked (incl. on call) | No. of patients seen | No. of deliveries performed |
|---|---|---|---|---|
| **Burkina Faso** | Doctors | 42 | 45 | 3 |
| | Midwives | 44 | 44 | 6 |
| | Nurses | 46 | 71 | 6 |
| **Morocco** | Doctors | 70 | 36 | 0 |
| | Midwives | 48 | 74 | 25 |
| | Nurses | 40 | 20 | 8 |
| **Benin** | Doctors | 48 | 28 | 6 |
| | Midwives | 48 | 26 | 12 |
| | Nurses | 48 | 16 | 4 |
| **Mali** | Doctors | 40 | 33 | 4 |
| | Midwives | 40 | 25 | 6 |
| | Nurses | 36 | 27 | 3 |

*Source: Health worker survey*

Table 8 shows that even after the introduction of the fee exemption policies, working hours remained reasonable across the countries, and productivity relatively low, with around one patient seen per hour worked (in Mali and Burkina Faso). While higher median working hours are reported in Morocco, the outputs are not necessarily higher – indeed for some categories, such as doctors, even fewer patients seen are reported. WHO suggests that 1 doctor is required for around 1,000 births, to provide emergency intervention where there are complications before, during and after delivery, while a midwife can provide care for 175 births per year. If these self-reported figures are accurate and are scaled up to get annual estimates, midwives are overcommitted in all four countries, while doctors are within norm in all countries.

Analysis of routine data (simply dividing deliveries by available staff within the hospitals), we get much lower figures. In part, this may but due to several staff contributing in different ways to a single delivery, but may also reflect over-reporting by staff. Figure 2 gives an example from Morocco.

**Figure 2 Ratio of staff to core service outputs, Morocco, research sites, 2005-11**




*Source: analysis of SNIS data*

Table 9 gives net reported changes in working hours, patients seen and deliveries done over the past few years for doctors, nurses and midwives in three countries. In Burkina, patients seen and deliveries done are reported to have increased overall, although working hours are reported as slightly decreased. For Morocco and Benin, all three variables were reported as increased for all professional groups, with larger increases in workload than in working hours, which could be taken as an efficiency gain for the health system. From the staff perspective, these results confirm the impression given in their interviews that the policy has been accompanied by an increased workload.

**Table 9 Net changes in workload, by professional category over response period[11]**

| Hours Worked | % change | Patients Seen % change | Deliveries done % change |
|---|---|---|---|
| **Burkina Faso** | | | |
| Doctors | -19% | 80% | 0% |
| Midwives | -2% | 24% | 20% |
| Nurses | -13% | 11% | 50% |
| **Morocco** | | | |
| Doctors | 31% | 92% | 800% |
| Midwives | 12% | 34% | 257% |
| Nurses | 14% | 83% | 100% |
| **Benin** | | | |
| Doctors | 12% | 16% | 200% |
| Midwives | 0% | 27% | 50% |
| Nurses | 17% | 44% | 100% |

*Source: Health worker survey*

[11] The period of recall for changes in the health worker survey varied by country. It covered roughly the period of policy implementation in Benin (3 years), Morocco (3 years) and Burkina Faso (5 years). However, as the recall was through to be too long in Mali, we asked about change over the past two years. Some of the responses indicated a misunderstanding of the question, which is why data is not shown here.

## Health worker perceptions of policy

Health workers were asked about their perception of the impact of the free care/subsidy policies on various dimensions. Their responses are summarised in Table 10. Across all countries the majority of staff feels that the policy has increased access to supervised deliveries and has benefited the poor. Its impact on the availability of staff is seen as negative in three countries – only in Mali do the majority of staff report improvements. In all four countries, and increased workload is reported. However, for drugs and supplies, its effects are seen as largely beneficial across all three (perhaps because of the additional resources injected in different fashions by the policies). Quality of care is also seen as improved, on the whole, though in Morocco a similar proportion (36%) is not sure about the impact.

**Table 10 Health worker views on impact of exemptions on services and themselves (%)**

| | Morocco | Burkina Faso | Benin | Mali |
|---|---|---|---|---|
| **Response to questions on impact on services** | | | | |
| **More assisted deliveries** | | | | |
| Yes | 73 | 97 | 56 | 65 |
| No | 7 | 1 | 21 | 6 |
| Do not Know | 20 | 2 | 23 | 29 |
| **Policy beneficial for poor** | | | | |
| Yes | 73 | 100 | 98 | 91 |
| No | 11 | 0 | 1 | 9 |
| Do not Know | 16 | 0 | 1 | |
| **Availability of health workers** | | | | |
| Improved | 4 | 40 | 27 | 72 |
| Deteriorated | 82 | 57 | 67 | 19 |
| Do not Know | 14 | 3 | 6 | 9 |
| **Availability of drugs** | | | | |
| Improved | 58 | 62 | 52 | 63 |
| Deteriorated | 28 | 31 | 37 | 28 |
| Do not Know | 14 | 7 | 11 | 9 |
| **Quality of care** | | | | |
| Improved | 36 | | 52 | 81 |
| Deteriorated | 28 | | 8 | 2 |
| No change | | | 31 | |
| Do not Know | 36 | | 8 | 11 |
| **Responses to questions on personal impacts** | | | | |
| **Workload** | | | | |
| Increased | 68 | 83 | 77 | 59 |
| Decreased | 7 | 4 | 1 | 5 |
| No change | 16 | 7 | 21 | 20 |
| Do not Know | 9 | 6 | 2 | 16 |
| **Revenue** | | | | |
| Increased | 4 | 3 | 10 | 6 |

| | | | | |
|---|---|---|---|---|
| Decreased | 1 | 2 | 1 | 6 |
| No Change | 78 | 88 | 88 | 68 |
| Do not Know | 17 | 7 | 1 | 20 |
| **Satisfaction** | | | | |
| Increased | 11 | 69 | 33 | 66 |
| Decreased | 40 | 9 | 12 | 3 |
| No Change | 34 | 11 | 54 | 19 |
| Do not Know | 14 | 11 | 2 | 12 |
| **Working Conditions** | | | | |
| Improved | 6 | 55 | 19 | 41 |
| Deteriorated | 53 | 11 | 9 | 7 |
| No Change | 29 | 17 | 68 | 37 |
| Do not Know | 12 | 17 | 3 | 15 |
| **Total** | **100 (143)** | **100 (129)** | **100 (190)** | **100 (176)** |

*Source: Health worker survey*

Health workers were also asked about the personal impact of the policies. The consensus was that they have not affected their remuneration (as there are no direct financial incentives linked to it for any of the staff in any of the countries). For workload, there is a general perception of increase. For satisfaction, it is more varied, with staff in Burkina Faso and Mali predominantly reporting an increase in work satisfaction, while in Benin the majority report no change and in Morocco a decrease. These match to the responses on working conditions. In Burkina Faso, for example, they reported an improvement in their working conditions due to greater availability of drugs and supplies and their ability to administer quicker treatment even in the absence of the husband or relatives, as women do not need to pay for deliveries. These factors also contributed to improving the satisfaction of the Burkina Faso health workers. However, most of the health workers in Burkina Faso complained about the increased workload due to the additional forms, documents and reports that need to be filled in under the subsidy policy.

Many health workers therefore made recommendations to improve the policy. Some of the recommendations health workers made in Burkina Faso were (i) that they wanted to see a reduction in the amount of paper work they have to complete, (ii) speedy reimbursements and preferably monthly reimbursements, (iii) recruitment of additional health workers dedicated to the completion of the paper work, (iv) the extension of the subsidy policy to other areas as well, (v) improving capacity building through adequate staff training and (vi) to raise public awareness of the subsidy policy.

In Morocco, health workers also recommended an increase in the number of health workers, particularly advocating for more midwives and gynaecologists. They also emphasized that more should be done to improve staff motivation and their working conditions.

Among the recommendations made by health workers in Benin, the main themes were to: (i) improve the availability of drugs and consumables through the presence of kits, (ii) motivate health workers by improving their working conditions, (iii) recruit more health workers to cope with the increasing workload, (iv) include pre-natal care and care of the newborns within the exemption package, (v) increase the salary of the health workers, (vi) avoid and reduce the delays in reimbursing hospitals and (vii) extend the coverage of the exemption policy to others areas of the reproductive care.

In Mali, health workers recommended that the kits are received on time to avoid stock ruptures and delays in treating the patients. They also recommended that the government makes all the drugs free from the moment the women arrive in the hospital until she leaves the hospital. Health workers would like to receive training in order to apply the policy adequately. They also recommended that awareness campaigns about the policy are organised in Mali to ensure that the population are aware of what is included or not included within the exemption package. They would like to see the policy extended to other deliveries, especially covering the costs of complicated deliveries. Finally, they recommended that the government ensures the policy is sustainable and continues this good initiative.

### Remuneration

If workload increases and if the policies reduce health workers income (e.g. from share of facility profits prior to the policy), then demotivation can be expected.

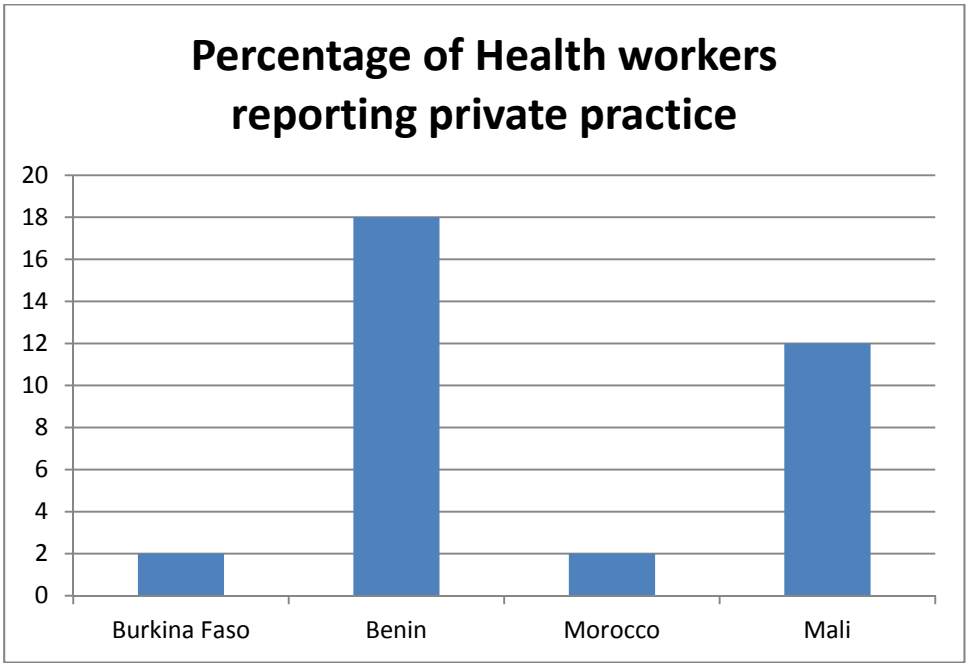
Over the past five years in Burkina Faso, all the health workers interviewed experienced an increase in their income. This increase was much more important to the medical assistants. The sum of financial gains and surpluses shared (*ristournes*) experienced a modest increase over the five years since the implementation of the policy. However, physicians and auxiliary midwives did not benefit from the increase.

In Mali, among health workers who reported a change in the median amount of base salary, approximately 38.1% reported an increase. No health worker has reported a decline in median base salary. Anaesthetists reported the largest increase in median base salary - 24% - against the smallest increase among surgeons is 5%. It appears here that all the health workers (100%) interviewed reported an increase in the '*prime de zone*' (allowances paid according to the location of work) they have received in the past 5 years, against 33% who reported a decline. Again, the anaesthetists have benefited the most from those increases. All health workers (100%) reported a decrease in the median amount of gifts received from patients over the 5 years. In Mali, health workers reported receiving 11% of *ristournes* as a proportion of their total salary (basic plus allowances). On the whole, health workers stated there was an increase in the amount of *ristournes* received in Mali over the past few years.

Staff in Benin do no report receipts from *ristournes* but do report an overall increase in basic salary ranging from 9-11% across the nurses, midwives and doctors.

About 57% of the health workers in Morocco indicated that their median salary increased by approximately 800 MAD. The paediatrician reported the highest median salary increase of 1412 MAD compared to the 700 MAD, the median salary increase reported by midwives and anaesthetic nurses. The degree to which health workers undertake dual practice may also influence their compliance with the free care policies. Private practice was probably underreported in our health worker survey (Figure 3). In Morocco, gynaecologists ignored the policy requirement that services be available on a 24-hour basis, for two main reasons. One is that they had more financial return when they worked in the private sector. Another motivation for not coming to work in the public hospital is the fact that most specialist live far away from these places. Managers were not sufficiently strong to enforce the policy upon these specialist cadres, which reduced the availability of services under the policy.

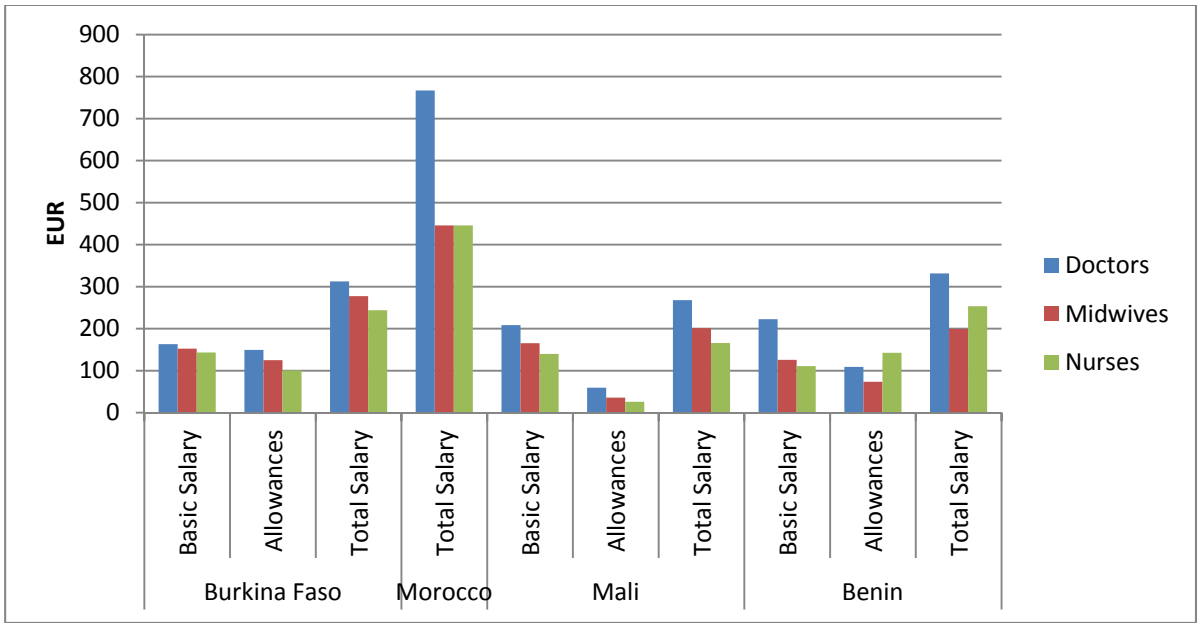
**Figure 3 Proportion of staff surveyed reporting private practice in each country**




*Source: Health worker survey*

Basic salary and allowances is shown for comparable cadres in Figure 4. Although there is variation, pay is relatively comparable across the sub-Saharan countries but higher overall in Morocco, as would be expected.

**Figure 4 Basic net salary and overall public income for each of the key comparable cadres, four countries (Euros)**




*Source: Health worker survey*

Table 11 shows the reported change in salary and allowances over the recent period for the three main cadres. Doctors have seen the highest proportionate increase over the period in most countries, with Burkina Faso leading with a 30% increase in basic salary. These increases will reflect pay negotiations and changes in the cost of living but may also be regarded as some form of compensation for increased workloads experienced during the period of policy implementation.

**Table 11 Total and net change in public monthly pay per cadre across countries (Euros)**

| | | Doctors | Midwives | Nurses |
|---|---|---|---|---|
| **Burkina Faso** | Basic salary | 163.1 | 152.4 | 143.3 |
| | Total public pay | 312.5 | 277.5 | 243.9 |
| | Net change in basic salary | 48.8 | 12.2 | 5.4 |
| | Proportionate increase | 30% | 8% | 4% |
| **Morocco** | Total public pay | 850.4 | 491.1 | 440.7 |
| | Net change in total salary | 131.8 | 68.2 | 64.7 |
| | Proportionate increase | 15% | 14% | 15% |
| **Mali** | Basic salary | 243.9 | 165.4 | 139.7 |
| | Total public pay | 472.1 | 250.4 | 292.3 |
| | Net change in basic salary | 22.1 | 9.1 | 10.7 |
| | Proportionate increase | 9% | 6% | 8% |
| **Benin** | Basic salary | 222.7 | 125.8 | 110.8 |
| | Total public pay | 331.6 | 199.4 | 253.5 |
| | Net Change in basic salary | 23.8 | 12.4 | 9.7 |
| | Proportionate increase | 11% | 10% | 9% |

*Source: Health worker survey*

## Finances

This section considers whether the policy delivered adequate resources in a timely way to the facilities, and the broader effects on the facilities finances. As with health workers, facilities have to cover their costs to survive and if the funding of the policy is too low or too late, or provides incentives for inefficiency, then we would expect to find facilities developing coping mechanisms with potential adverse effects for users.

### Reimbursement systems and resource management

Reimbursements to the health facilities should cover costs but also provide an incentive for efficiency, ideally. A fixed payment per service which is set at the real costs can do that. In Burkina Faso, health facilities are reimbursed according to actual costs, but these only include variable costs of deliveries, with no margin to cover the operating costs which facilities fund through user fees. This meant, for example, that health facilities were not able to derive a staff bonus from the subsidy. Health facilities did not lose financially, yet cannot gain or reinvest from it either. The policy has changed the nature of their financial resources: they are no longer marked as own revenues, but as a State subvention. Hence, it is no longer possible to skim some extras for health staff.

In Morocco, despite the increased budget to accompany the implementation of the free caesarean and delivery policy, the general revenues of the health facilities have not been affected positively. In 2011 and during the first half of 2012, no financial resources were provided at all. This has touched the financial reserves of the health facilities that are still implementing the gratuity policy.

In Benin, where a flat fee of 100,000 FCFA is paid per caesarean section, health facilities manage the budget themselves, and the final effect on their general revenue depends on their priorities. Although several respondents claim that the fixed rate for reimbursement per caesarean section in Benin is insufficient to cover the actual costs, other health facilities were found to offer high quality care with the same budgets.

Mali also operates a fixed tariff scheme – providing 30,000 FCFA per caesarean section, plus the provision of kits.

### Adequacy of payment per service

In this section, we compare the tariffs, where applicable, with the production costs of the services (using data from our costing tool). The aim is to see whether the policy created the right incentives for facilities.

In Benin, the average cost of the caesarean section for the health facility was 44,227.4 FCFA (all facility types), which is well below the fixed amount of 100,000 FCFA which is reimbursed for each caesarean section performed (Table 12). However, this cost does vary between 21,097.7 and 91,236 FCFA and there was a statistical difference between the costs of caesareans according to the different types of hospitals. This difference therefore confirms that some hospitals such as '*polycliniques confessionnels*' and '*hôpitaux de zone confessionnels*' gained more financially from this policy. On average it costs these institutions 25,535 FCFA and 33,776 FCFA respectively to perform a caesarean section. The '*hôpitaux confessionnels*' and '*hôpitaux de zone associatifs*' on the other hand were the most expensive ones, with a caesarean section costing 73,490 FCFA and 56,016 FCFA respectively and medical supplies being the most costly item.

In Burkina Faso, the average cost of a caesarean was 29,016 FCFA (all facility types) but due to poor data in some areas, it is suspected this figure may have been under-estimated. The average cost of a caesarean section in the CHR was 37,100 FCFA and 20,143 FCFA in the CMA. In fact, the cost of a caesarean was originally over-estimated for the district health facilities and the CHR, but underestimated for the CHU (55,000 FCFA versus an actual production cost of 60,422 FCFA). Similarly, the costs of a normal delivery for the CHR and the CMA, according to our costing study, were 8,445 FCFA and 3,044 FCFA respectively. The cost of a normal delivery for the CHU based on the secondary information we gathered was 6,290 FCFA. Once again, the reimbursements for the normal delivery were originally over-estimated for the CMA but underestimated for the CHR and the CHU. However, as the policy quickly switched to paying actual costs, the payments should have been correct in the end, if the reimbursement system operated effectively (see below).

In Mali, the average cost of a 'simple' caesarean varies from 17,156 to 174,843 FCFA. The median and average costs are respectively 73,244 and 76,467 FCFA, but vary depending on the type of structure. They are respectively 75,955 and 82,325 FCFA at the hospital level and 70,257 and 68,508 FCFA at CSREF. The cost of a complicated caesarean section also varies depending on the type of structure. Overall, the minimum cost is 18,376 FCFA and the maximum reached 157,369 FCFA. The average cost amounted to 75,724 FCFA with a median of 81,216 FCFA. Moreover, the median cost is 86,376 FCFA in the hospitals and 41,986 FCFA in the CSREF.

For Morocco, the costing was not undertaken as services are not reimbursed directly.

**Table 12 Gap between average cost of provision and amount reimbursed (Euro), by type of service (across all levels of care)**

| Country | Type of Service | Average Cost of Provision | Amount Reimbursed | Gap |
|---|---|---|---|---|
| Burkina Faso | Normal Delivery | 9 | 7 | -2 |
| | CS | 44 | 67 | 23 |
| | Complicated delivery | | | |
| | Pre-eclampsia/eclampsia | 22 | 27 | 5 |
| | Haemorrhage | 16 | 67 | 51 |
| Benin | Normal Delivery | 19.48 | | |
| | CS | 67.42 | 152.45 | 85.02 |
| | Complicated delivery | 66.85 | | |
| | Postnatal | 3.10 | | |
| | Antenatal | 5.51 | | |
| Mali | Normal Delivery | 16 | | |
| | CS | 116.57 | 91.47 | -25.10 |
| | Complicated Caesarean | 115 | 109.76 | -5.68 |
| | Postnatal | 6 | | |
| | Antenatal | 16 | | |

*In Burkina Faso, the gap refers to the original costing – the payments are now based on actual expenditure; in addition, there are patient contributions

** Health facilities in Mali receive 30,000 FCFA for a simple caesarean section kit and 42,000 FCFA for a complicated caesarean section kit. The government also reimburses hospitals 30,000FCFA for the hospitalisation costs.

*Source: Costing tool*

The picture clearly varies considerably across the countries, with one not paying according to services delivered at all (Morocco), one paying actual amounts (Burkina Faso), one paying too much (Benin) and one possibly too little (Mali). For Morocco and Mali, this might lead to a lack of attention to women needing caesareans, while in Benin, one might expect – and indeed qualitative evidence did suggest – an eagerness to provide them. This can be ascertained by considering utilisation patterns (below). For Burkina Faso, while the actual cost repayment system avoids incentives to over- or under-supply, it creates a different problem – that of a complex billing system, which explains why Burkina Faso was the main country where staff complained of the administrative workload created by the policy.

## Timeliness

The FFT study indicated that the flows were received in a timely manner in Benin, which reflects the role of the centralised agency, which reimburses direct to hospitals. In Mali, based on the data available we could not determine whether there were delays in reimbursements. In Burkina Faso, the record keeping at facility level inhibited our analysis, but the reimbursements do not correspond to expenses, indicating some lags in reimbursement. For Morocco, the funding has been in the form of an annual budget, but with gaps - some years (2011) lacked any payments.

### Broader financial impact

A surplus in budgets was realised by the hospitals (CHR) in Burkina Faso. Irregularities in the reimbursement of the subsidy policy have been noted which resulted in overpayments in some years and underpayments in others. This could explain why there were surpluses in some years and deficits which were difficult to manage by health facilities. The surplus increased from 2008 to 2011 and could be due to the excess in reimbursements that the CHR received for some of the years. Similarly, the policy seemed to have had a positive effect on the finances of the CSPS between 2006 and 2009. But two hospitals faced financial difficulties with deficits at the end of each year. Inadequate reimbursements may have contributed to these deficits.

Overall, hospitals realised a surplus in budgets at the end of each year in Morocco, although the surplus was lower in 2011, firstly because hospitals in Morocco did not receive any funds in 2011 and secondly since they started losing revenue from ophthalmology services. Hospitals in Benin do not record surpluses or deficits and this information was missing for Mali.

Overall, facilities appear to have coped financially over the period of policy introduction, albeit with fluctuations which are challenging to manage.

## IT Systems

A selective improvement of the health information system at hospital level was observed in Benin after the free caesarean policy. The different registers, protocols and other forms concerning the caesareans were better documented, because reimbursement took place based on these documents. While all of the hospital staff has contributed to this improvement, certain staff members have been identified and trained to reinforce the information system in the maternity and specifically the information linked to the policy.

In Burkina Faso, routine data concerning the activities covered by the subvention policy were available. However, the filing of documents showed difficulties, as did the use of the software for the reporting on emergency obstetric care activities. Health workers also complained about the administrative workload caused by new documents to be filled in.

In Morocco, no reporting system has been put in place when the free obstetric care policy was implemented. The routine system has continued to be applied in all studied districts. This regular system has always been considered a heavy system with numerous duplications. Because of a larger volume in services due to the policy, the workload linked to the health information system is said to have increased still further. According to facility managers, the midwives and head nurses of maternity are managing not only service provision but equally the human resources management, logistics and the coordination with the administration. Moreover, the health information system is seen by most health care providers as a purely administrative task rather than as a decision making tool.

## Drugs and supplies

In Benin, the caesarean kits provided at the onset of the policy were too generous for some items and too limited with others. The management of drugs and consumables was problematic and the surplus created by the kits instigated parallel (informal) drug sales in certain hospitals. The hospital managers have reacted by restricting the contents of the kits and offering only a minimal packet of items. This minimal kit reduced the room for manoeuvre of the health providers and obliged them to make precise therapeutic choices. For instance, the kit obliged staff to use regional anesthesia. When the indication of caesarean section did not allow this type of anesthesia, the appropriate type of anesthesia is prescribed and charged to the patient.

As the resources covered by the policy were secured and certain, the hospital managers prioritised maternity services over others, for example, by ensuring that stock ruptures in the obstetric department were kept to a minimum. Stocks of drugs were made and reserved for the maternity. In case a drug stock-out was imminent, the provision of drugs and consumables was prioritized for the maternity at the expense of other services.

In Burkina Faso, no major ruptures of stocks have been noticed at district level except for magnesium sulphate and suction catheter for the newborn. Kits were made at district level with the stock of the district pharmacy. In some sites, kits management has been a problem, with kits already opened and essential items missing when needed, or unused products after a CS being kept by the staff for his or her private practice instead of being given back to the pharmacy. This is why some districts have chosen to stop making kits and have kept the old system of individual prescription delivered at the pharmacy to avoid waste of products. Another concern was the equipment of the Operation Theatre: the subvention covered only direct costs of the CS but no mechanism was foreseen in the subvention policy for the purchase of equipment (e.g. surgical boxes, sterilizer, and oxygen). Some theatres have been temporarily closed due to technical and material problems resulting from the wear and tear linked to the increase in surgical activities.

In all study sites of Morocco, the availability of drugs has been considered one of the most positive effects of the free obstetric care policy, thanks to a parallel drugs policy put in place. Even where health facilities experienced an increased volume of activities as a consequence of the free delivery and caesarean policy, there were no stock ruptures reported for drugs. The local level of service provision has also benefited from an important increase in the availability of normal delivery kits and episiotomy kits. Their number has almost doubled in all the study sites. Between 2009 and 2010 there has been an additional delivery of those kits in all the health structures of the country.

In some places though, the number of kits was more than double the number of deliveries actually assisted, which cannot be cost-effective. However, the work environment, including the bed capacity and the infrastructure of the concerned health facilities, was considered inadequate by health care providers for the free obstetric care. They complained about the poor quality of beds, bed linen, equipment and even some items from the kits.

## Management

In Burkina Faso, the policy has instigated changes at two levels: on the one hand, it has allowed more leeway due to an increase in financial resources, drugs and access to health care without advanced payments by users; on the other hand, it generated constraints related to the need to preserve the continuity and quality of service provision (e.g. availability of inputs, and mechanisms for maintaining sufficient motivation among staff, including increased revenues for the acts covered by the subvention policy). Only one district has, due to an exceptional engagement of two district health managers, adopted some guidelines in order to preserve the interest of service users, e.g. measures taken to control the use of drugs by service providers (after misuse observed). In two other districts the knowledge of the subvention mechanisms as well as the decision making space were minimal, mainly because of contextual elements (managerial tensions and high turn-over).

In Benin, managers were not consulted early on, leading to some doubt and lack of confidence at first from their side in relation to the policy. However, overall the policy was perceived as an opportunity to support the hospital finances and limit catastrophic expenditures, by public as well as private facilities - the latter taking their time to negotiate the most advantageous possibilities for their adherence to the policy. Once the policy had started off, the almost total absence of reference documents or guidelines in terms of the package to offer, the weak attention accorded by the

implementing agency to the quality of care in general and the absence of an organized and informed regulating power offered leeway to the health facilities. Every health facility management team adopted the policy differently according to the pre-existing organisational schemes (and hence without constraint or attempt to change those schemes) or in the interest of the health structure (whether it was public, private, confessional or associative). While the policy has reinforced the local health system in some aspects, e.g. the reinforcement of the investment capacity of hospital directors (because of increased general revenue) and a selective improvement of the health information system, a couple of negative effects of the policy on the local health system seem to have occurred as well. Because the policy is directly managed by an implementing agency (ANGC), it has weakened the managerial capacity of the intermediate level and the coordination of the health zones. The departmental and zonal management teams were not involved and the direct management by the ANGC has reduced the supervision visits that these teams used to carry out in the health structures in their catchment area.

In Morocco, the health managers were not really involved in the implementation of the free obstetric care policy, which had consequences for the human resources management and service provision. This could be explained by the urgency with which the policy began. The free care was installed in the very beginning of the Plan for the Reduction of the Maternal Mortality, meaning at a time when the optimal conditions were not yet created. The service providers and facility managers found themselves wrenched between the demands of the central level and those of the population.

Management teams have quite some leeway to interpret and support the policy, as they are able to influence workload distribution, quality of care, reallocation of resources, supervision, training and quality assurance. They could yield this power in two ways, to assure correct implementation or to create personal or other benefits. In the FEMHealth study sites, regardless of the country context and national policy's specificities, examples have been found of both scenarios. In some cases, it was found that actors such as directors and specialists used their power position to adapt the policy to their own benefit, e.g. in some study sites of Benin or Morocco, patients were still charged fees, because staff were compensating for the free caesareans by charging something else to the patient. These effects can be moderated or avoided by capable management teams and adequate supervision by programme managers, as seen in other study sites of the same countries (Benin, Morocco…) when district health managers and or hospital directors are positively engaged with the policy implementation and the protection of service users.

## Factors behind better or worse implementation in different districts

The realist case studies examined the adoption of the policies by the district-level managers, hospital managers and providers (doctors and nurses), using policy implementation frameworks from political science that point out the important role of 'street-level bureaucrats' in policy implementation.

These studies show that in each study district, the policy was generally well adopted by the hospital managers. Nurses and midwives in general also perceived the policy as positive and they adopted the policy objectives. The position of specialists and general physicians was in general more mitigated, and we found they often tried to bypass specific additional tasks or requirements (see below).

The literature indicates that policy implementation will be better if the policy is developed with the implementers, well communicated, and accompanied by adequate training and funding measures. Our study confirmed the importance of these factors. In most study sites in Benin, Mali and Burkina Faso, the management teams did not have a large absorption capacity to take up the new tasks without additional resources. When the reimbursements were late or inadequate, the implementation halted. In Morocco, this was not the case, as the capacity of the teams, the existing

implementation infrastructure in terms of human resources, facilities, and equipment was adequate to take up the new patients.

Our studies pointed out the importance of factors other than policy process, communication and support. The analysis of divergent responses of the cadres indicated that the adoption of the policy is also explained by the configuration of autonomy, decision space and motivation of these actors and by organisational and institutional factors.

- We found that nurses and midwives mostly felt that the policy was relevant and congruent with what they considered the mission of their organisation. However, even if they would have thought otherwise, they could do little else than to implement the policy as prescribed because of their relatively weak power position.
- Doctors, and especially specialists, were often found to use their power position to implement the policy half-heartedly or to change it to their advantage.
- The district and hospital managers often formally accepted the policy. They were mostly not in a position to openly contest the policy given the hierarchical control over them. In practice, we found quite some variability in terms of their support to the implementation. In some districts, for instance in Benin and Burkina Faso, we found that patients were still charged fees, and that this situation was condoned by the management teams, if it was not initiated by them. Similarly, in some Moroccan sites, the decision of specialists not to ensure a permanent call system was accepted by district-level health authorities.
- Authorities at regional or provincial level were generally in favour of the policy, but almost never played an active role in the implementation of the policy. They often claimed to be powerless vis-à-vis the specialists and did not wish to disturb the negotiated order with these providers.

Formal acceptance of the policy in most cases did not lead automatically to pro-active adaptation of the policy to local contexts. We found that context matters. First, a number of organisational factors are important, including vision, capacity of the management teams, management and leadership practices, and organisational culture. Where the local organisational culture is one of laissez-faire, the policy is implemented on paper and to a minimum degree (formalistic compliance). We found this to be the predominant case in most districts. In these cases, providers and managers seem to have arrived at a negotiated order that reflected mostly their personal or professional interests, but not necessarily those of the patient or the community.

The exceptions provide interesting lessons in the conditions required for effective policy implementation. In Benin and Burkina Faso, we found cases that proved the opposite. In these hospitals, the top managers, operating within the pre-existing organisational culture that was centred on patients and community service, adopted the policy and adapted it to their organisational setting. The strong sense of the organisational mission shaped their perception of the policy and their actual decisions in favour of the policy and the patients. The pre-existing management structures allowed for support and enforcement of the policy at the level of operational units. In one hospital in Benin, the management team used the generous reimbursements to strengthen other non-targeted services and to better remunerate all staff, not because the policy document said so (it was silent on this topic), but because the management team recognised the opportunity and used it strategically to strengthen the service delivery of the whole hospital.

A number of institutional factors contribute to shaping the organisational context. These include the strength of the hierarchy in terms of oversight, control and remedial action – or the quality of the governance arrangements. Indeed, supervision by regional or provincial health authorities, by local political authorities or by a central agency theoretically would provide leverage to intervene in case the policy is captured. Not only could this ensure correct implementation, but also provide effective

support to health staff, who are more likely to positively adapt the policy to the local context if they are given supportive supervision. In practice, we found this to be rarely the case. Only Benin included setting up a central agency to run the policy implementation, but this agency largely focused on rolling out and implementing the funding arrangements, ignoring (at least in the beginning) problems of quality, coverage and informal fees. In Morocco, the provincial level often passed on instructions from the central level without active involvement or follow up at the operational level.

The above analysis calls attention to the stewardship function. Key responsibilities of local health system stewards include (1) ensuring an adequate response to local needs and circumstances, in terms of provision of health services and wider health promoting activities; (2) coordination of local actors; (3) management of health services, activities and health workers; (4) supervision and training of service providers, and (5) adaptation of national policy and guidelines to local circumstances. To this list of responsibilities that ensure a well-integrated local health system, we add a sixth notion of safeguarding the public interest and holding all actors in the local health system accountable to the public as a key responsibility. We found that roles 1 to 5 are generally assigned to regional and district health management teams. The role of ensuring public accountability, however, was found to be underdeveloped or even not mandated clearly. In any case, lack of effective stewardship allowed faulty implementation processes to continue in many of the sites.

A score was developed to summarise the availability of key resources at the facility level which were required to make the services and hence the policy effective (these included inputs such as drugs and staffing but also whether services were continuously available and operating). This helped to pinpoint blockages in the policy. In some sites, for example, the resources were available, but the implementation of the policy in terms of charging and quality was not good (see below). In such instances, other explanatory factors, such as poor management, may need to be investigated.

## Impact on service uptake

There have been recent increases in the utilisation of both delivery care and caesarean sections across Benin, Burkina Faso and Morocco. However, there is limited evidence to attribute these changes specifically to the implementation of maternity user fee removal policies.

The subsidy policy in Benin related only to caesarean deliveries. However, it is of note that Benin has maintained a consistently higher facility delivery rate than either Burkina Faso or Morocco over a prolonged period of time (Figure 5). The caesarean rate in Benin is steadily increasing, from a national rate of around 4% in 2000 to 6% in 2011 (Figure 6). The rise in the caesarean rate appears to have pre-dated the introduction of the exemption policy in 2009, and it is too early yet to reliably determine any effect that may be attributable to the policy.

In Burkina Faso, there has been a notable increase in the proportion of deliveries taking place in a health facility during the past decade (Figure 7). In 1988 43% of deliveries took place in a health facility, this proportion remained relatively constant until the early 2000s before increasing rapidly; by 2010 74% of deliveries took place in a health facility. Most of this growth took place at the health centre level. Inequity was reduced: in 2000 just 23% of the poorest 40% of households delivered in a health facility which had risen to 60% by 2010, compared to a relatively smaller increase from 83% in 2000, to 96% in 2010 amongst the wealthiest 20% of households. Whilst the national subsidy policy is likely to have contributed to these gains, significant increases in service uptake were observed prior to the policy's introduction in 2007. The national caesarean section rate in Burkina Faso remains very low (Figure 8); the caesarean rate in Burkina Faso was 1.2% in 1988, and 1.9% in 2010.

In Morocco, the proportion of deliveries taking place in a health facility has been steadily increasing over at least the past two decades (Figure 9). The proportion of deliveries taking place in a health facility has been steady, at around 70-75%, since 2006. There is no evidence of a change in utilisation trends since the introduction of the policy in 2008. Caesarean rates increased from 2% in 1987 to 13% in 2010 (Figure 10). In Morocco, facility deliveries mostly take place in the public sector: by 2010, 89% of all deliveries in health facilities continued to be in the public sector. However, an increasing proportion of caesarean sections take place within the private sector, by 2010 38% of all caesareans were in the private sector, compared to 19% in 1987.

**Figure 5 Trends in facility delivery in Benin**

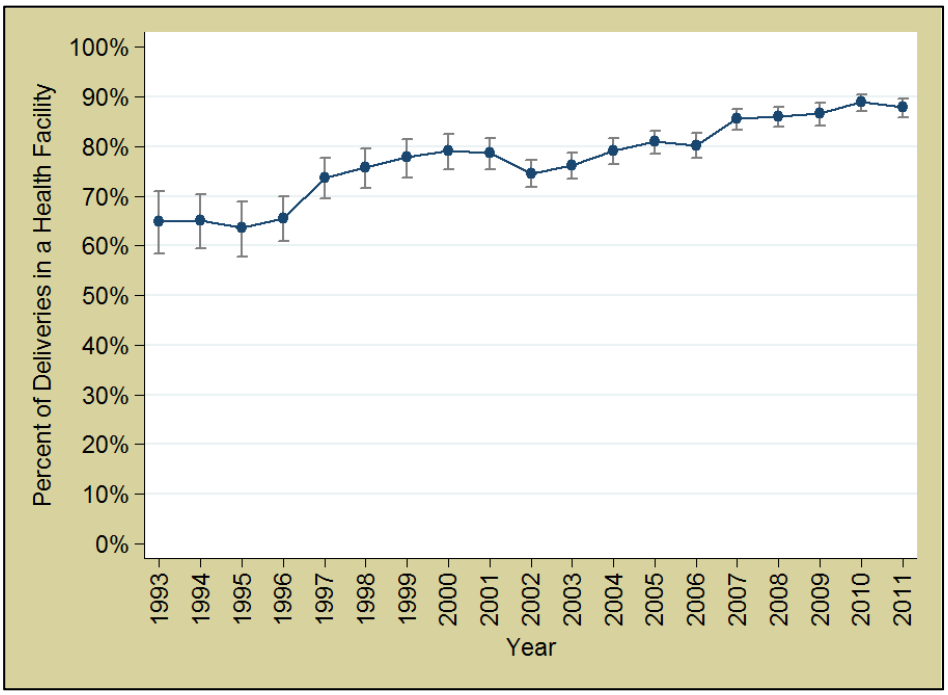
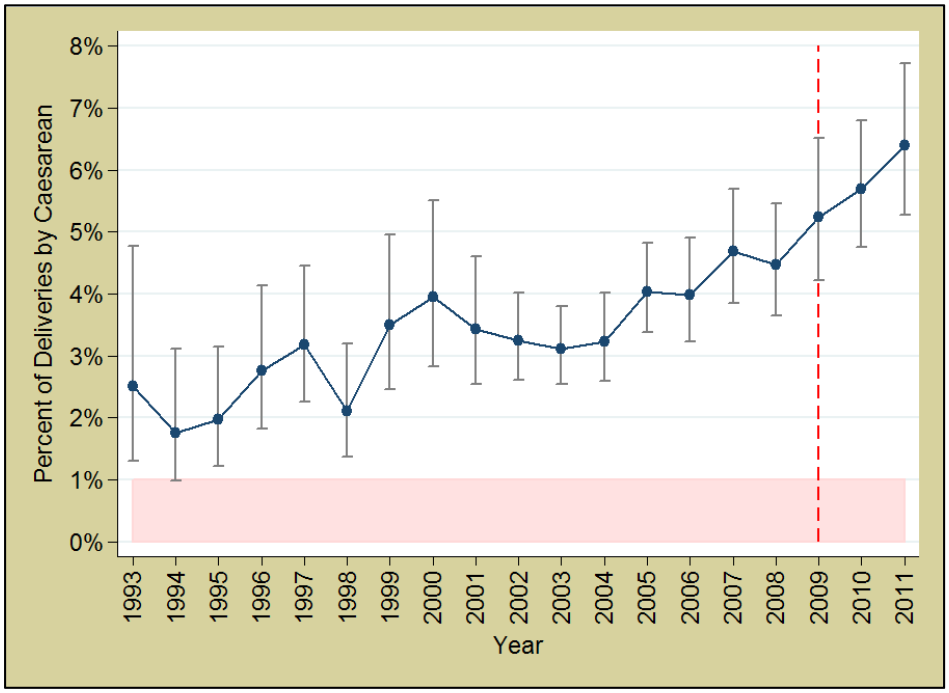
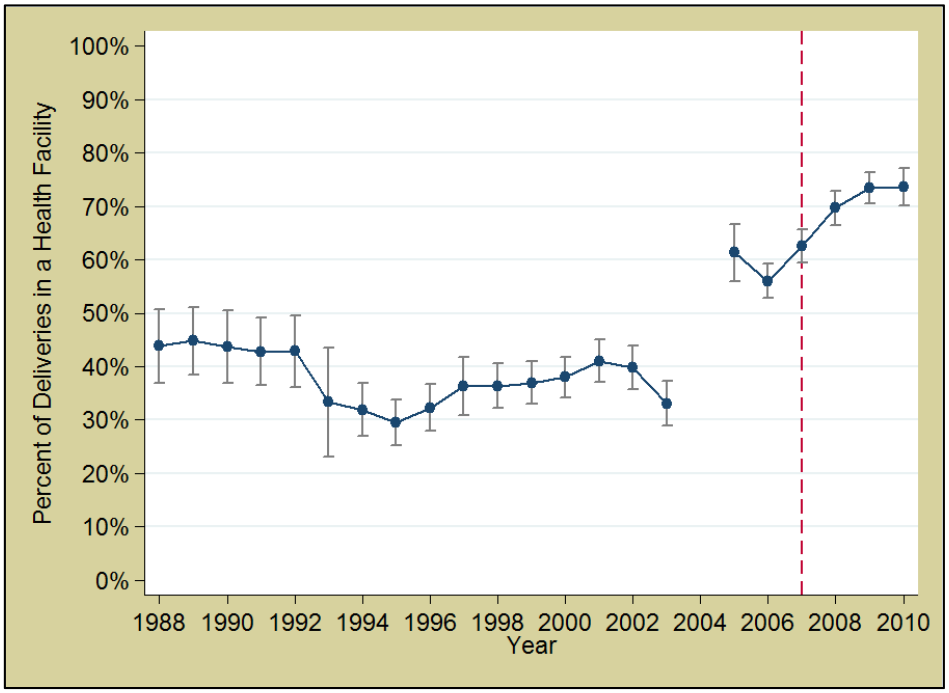


**Figure 6 Trends in caesarean sections in Benin**



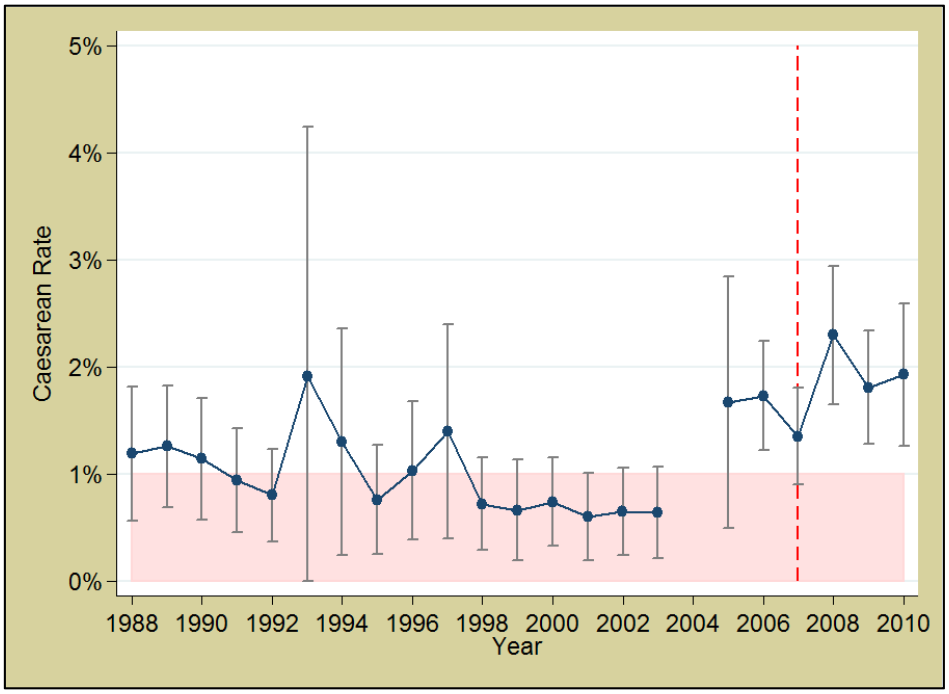

*Source: DHS data; red, dashed line represents the implementation of the national subsidy for deliveries and emergency obstetric care (2009).*

**Figure 7 Trends in facility delivery in Burkina Faso 1988-2010**



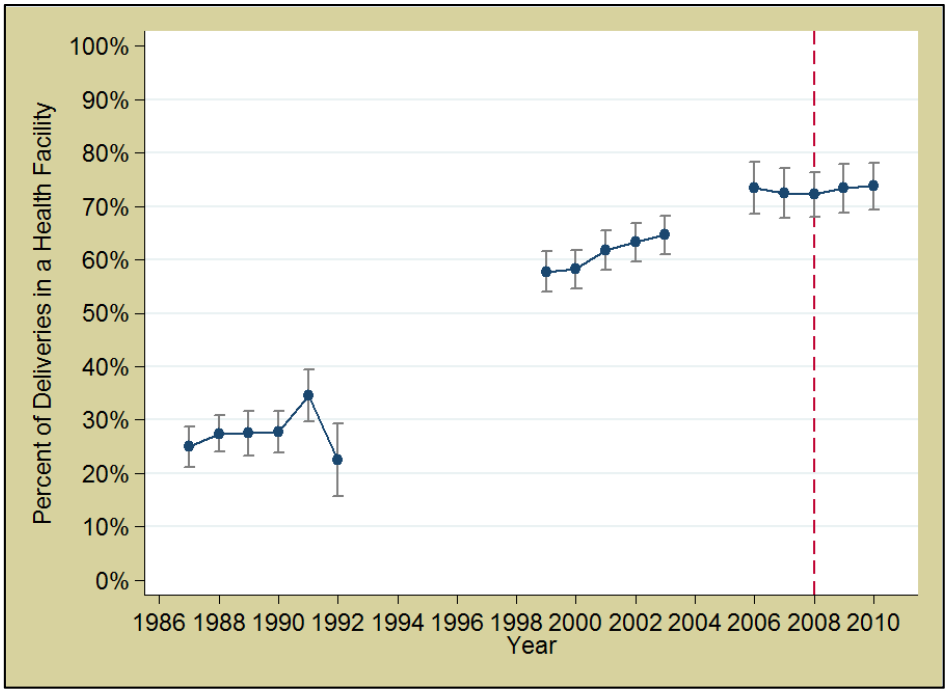

*Source: DHS data; red, dashed line represents the implementation of the national subsidy for deliveries and emergency obstetric care (2007).*

**Figure 8 Trends in caesarean sections in Burkina Faso 1988-2010**



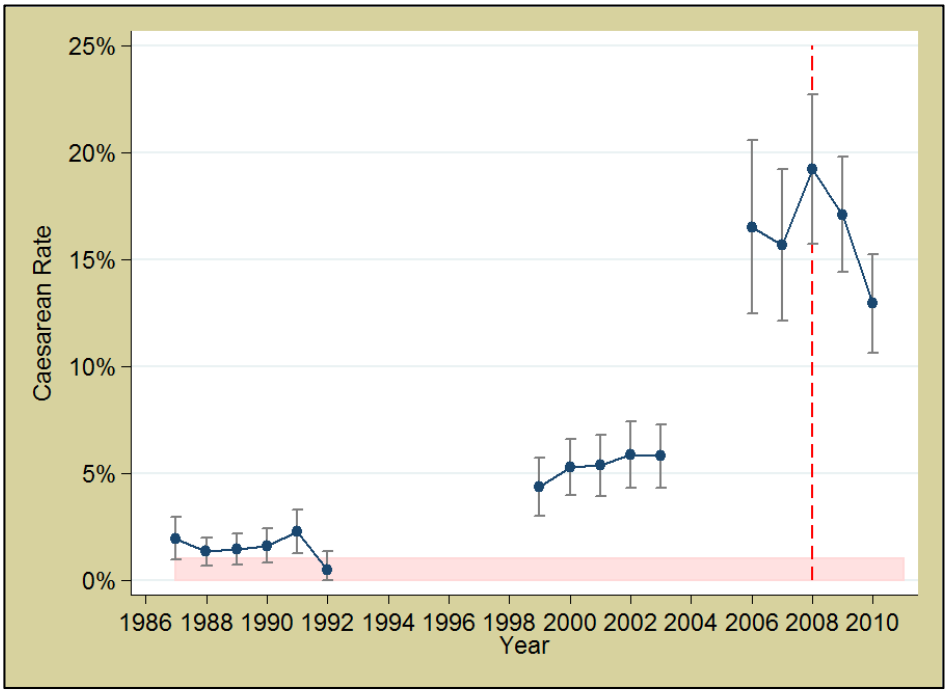

*Source: DHS data; red, dashed line represents the implementation of the national subsidy for deliveries and emergency obstetric care (2007).*

**Figure 9 Trends in facility delivery in Morocco 1987-2010**




*Source: DHS data; red, dashed line represents the implementation of the fee exemption policy for deliveries and caesareans in public hospitals (2008).*

**Figure 10 Trends in caesarean sections in Morocco 1987-2010**




*Source: DHS data; red, dashed line represents the implementation of the fee exemption policy for deliveries and caesareans in public hospitals (2008).*

In summary:

- For Burkina Faso, there is a statistically significant decline in the rate of increase facility deliveries (i.e. between 2002 and 2007 there is a 12% relative increase each year, whereas between 2007 and 2010 there was a 6% relative annual increase) - so whilst the overall rate is increasing in absolute terms, it is doing so less rapidly post-2007. For caesarean sections, there is no evidence of a change in either direction.
- For Morocco, there is no evidence of a change post-2008 in facilities deliveries: the gradient is flat. There is actually a significant decrease in caesarean rates after 2008, though this may be related to the 2008 data point being erroneously high. In either case, there is no evidence of a change in gradient.
- For Benin, the overall rate increases but there was no significant change in gradient post-policy.
- For Mali, we have no comparable post-policy data, though the change may be modelled when the next DHS dataset becomes available.

It is evident overall that countries have made progress over the past 15-20 years, and these policies may have contributed, but there is no evidence of that as yet. It may be too early to tell, as we have only 2-3 post-policy data points in each country, and the varying implementation documented by FEMHealth also underlines the need to be cautious about assuming immediate effectiveness of policies.

Furthermore, the Morocco caesarean section rate is at a level where any increase (even if true) would be unlikely to have any maternal mortality implications, and if anything the concern is excess and unnecessary caesarean sections among certain groups.

### *What was the impact on other (non-targeted) services?*

In general, the policies did not impact in a major way on the non-targeted services. Some minor positive and negative tendencies were observed regarding the non-targeted service delivery, however it is difficult to attribute these effects.

Concerning the resource levels for the non-targeted services, the policy did not seem to contribute significantly to improvements in this domain, except in some sites in Benin, where the management teams used their increased financial margins to invest in non-targeted services.

In Burkina Faso, the reimbursement to the districts remains limited to the actual costs, so there is no financial margin for the district management teams to invest a financial surplus in the improvement of non-targeted services or the local health system in general. Nevertheless, some positive effects were observed at hospital level, with certain aspects of the policy seemingly advantaging all the services of the hospital. First, the improved drug and consumables procurement has positively influenced the procurement of items for non-targeted services, which are subject to the same administrative and financial procedures. Second, the revenues for all the hospital staff are higher with the increased utilization of services linked to the maternal and neonatal health care subvention. In Morocco, the resource levels for non-targeted services were positively affected by the accompanying drugs and consumables policy, though not by the free obstetric care policy as such.

A few negative effects in terms of draining resources from non-targeted services to targeted services were noted in Benin, where occasionally general practitioners were asked to assist in the maternity, or patients were sent to the general department for further examination or follow up. In Burkina Faso only an occasional call for human resources of non-targeted services was mentioned, when there was not sufficient health staff available in the targeted services. However, this additional workload for the non-targeted services was too minimal to show in the indicators.

In Benin, there seems to be some inflating of maternal surgery, not to the expense of non-targeted services, but rather to the expense of less lucrative obstetric acts, namely assisted deliveries. Caesarean sections represent in some study sites of Benin the only alternative when a normal vaginal delivery is not possible. Instrumental deliveries were not frequently practiced before the free caesarean policy and it seems this number has decreased even more since the policy's implementation. This observation, together with a tendency of increased caesarean sections in certain study sites, might lead to the hypothesis that caesareans are practiced as an easy (less time-consuming) and lucrative alternative for instrumental deliveries.

Concerning the effects of the policy on non-targeted services, the results are mixed. In some sites, the increased uptake of obstetrical surgery appears to go hand in hand with a slighter lower uptake of non-obstetrical surgery. However, this seems to be the case mainly in health facilities with limited infrastructure and/or a limited number of human resources implied in surgery. In those cases, there is a competition for resources with a negative outcome for the services that offer less "return of investment". According to some health care providers, corruption has increased and when stock ruptures are about to occur, prioritisation takes place of maternity and operation theatre over non-targeted services. However, obstetric surgery is marginal in most study sites in Benin, so it is difficult to generalize. Also, when looking at the total admissions in two other non-targeted services (paediatrics and general medicine), trends shows that they as well have been increasing since the free caesarean policy in almost all study sites. Hence, in terms of the effect on the utilization of non-targeted services, little evidence is found of the latter being disadvantaged by this policy.

In Burkina Faso, no negative effects of the policy have been noted on the utilisation of non-targeted services. The trends of service volume in the departments of general medicine and paediatrics are as

expected and the few exceptions can be explained by contextual elements. The same conclusion is valid for Morocco.

## The relationship of the policies with quality of care

### Defining the concept

Quality of care is a multi-faceted concept, defined in maternal health as "providing a minimum level of care to all pregnant women and their new born babies and a higher level of care to those who need it; obtaining the best possible medical outcome of mother and baby; providing care which satisfies users and providers; and maintaining sound managerial and financial performance" (Pittrof, Campbell, & Filippi 2002).The outcome of the pregnancy is therefore an important basis for assessing how well care has been delivered, with some women and babies requiring emergency services while others only needed routine skilled birth attendance. In this project, we hypothesize that the removal of user's fees policy might impact on the quality of the provision of both emergency and routine maternity services, even in countries where fees were only removed for caesarean sections.

In addition, six useful dimensions of quality of care have been highlighted by WHO: effectiveness (is care based on evidence-based medicine?); efficiency (is care delivered in a resources efficient way?); accessibility (is the geographical spread sufficient for patients/women to receive care in a timely fashion); equity (do all women receive care regardless of their socio-economic and cultural background?); patient-centredness (does it take into account patient/women's preferences?); safety (are risks and harms to women and their babies minimised?).

This section concentrates primarily on effectiveness, accessibility, patient-centre approach, and safety of the care provided. Findings related to efficiency and equity are reported below.

Quality of care was assessed in five ways:

- we assessed women's perception of quality of care with structured interviews at discharge, including their satisfaction with technical aspects of quality of care and with staff communication [exit interviews]
- we measured trends over time in the frequency of procedures at the district level such as vacuum deliveries to establish whether the policy changes are correlated with changes in practices through a review of registers [POEM]
- we measured the frequency of women and babies who nearly died through review of medical records, in an effort to assess the outcome of maternity care [near miss/QoC tool]
- we measured the frequency of heath care near- miss (omissions and delays in the process of care) to document the safety of the care provided by consulting medical records; three omission scores were developed for this purpose, concentrating on vaginal delivery, caesarean delivery and early neonatal care (box 1) [near miss/QoC tool]
- in two countries (Benin and Morocco), we observed the quality of care in facilities as well as conducted in depth interviews with women with uncomplicated deliveries, who were near-miss or needed c/sections to document in greater details the interaction between patient and staff and the hospital context in which the care is provided [in-depth interviews/observations]

This information was analysed by country, type of facilities and by implementation score[12] and triangulated whenever possible. After summarizing overall patterns, findings are reported below for Benin, Burkina Faso and Morocco.

## Main findings

Overall, women's perceptions of the quality of the services were generally high or very high as can be expected with retrospective interview surveys (Figure 11). In Burkina Faso, post discharge interviews conducted in the home of the respondents found the highest proportions of women who were satisfied with the services they received. Women in Benin were generally relatively satisfied; fewer women were "very satisfied". When women reported dissatisfaction, it was most frequently related to the cleanliness of facilities, with particularly low levels of satisfaction with cleanliness reached in three facilities in Benin. Observations and in-depth interviews by social scientists in two facilities in Benin and two facilities in Morocco painted a more nuanced picture. Incidents of poor communication were observed, including lack of informed consent for surgical care and poor bedside manners. In Benin, while poor interpersonal relationships in maternity wards had been documented in previous studies, in this project these were attributed by several respondents to perverse effects of free caesarean section policy.

There appears to be little correlation at the facility level between satisfaction with care reported by women in structured interviews and technical measures of quality of care using medical records. Technical quality of care varies across countries - being lowest in Burkina Faso where the satisfaction was highest - and across facilities as illustrated in Figure 12.

**Box 1: Procedures included in omission scores**

***Omission score for vaginal deliveries:*** Negative or don't know responses to partograph use and measurements of BP at admission, heart beat of baby during labour, postpartum pulse, postpartum bleeding, postpartum temperature

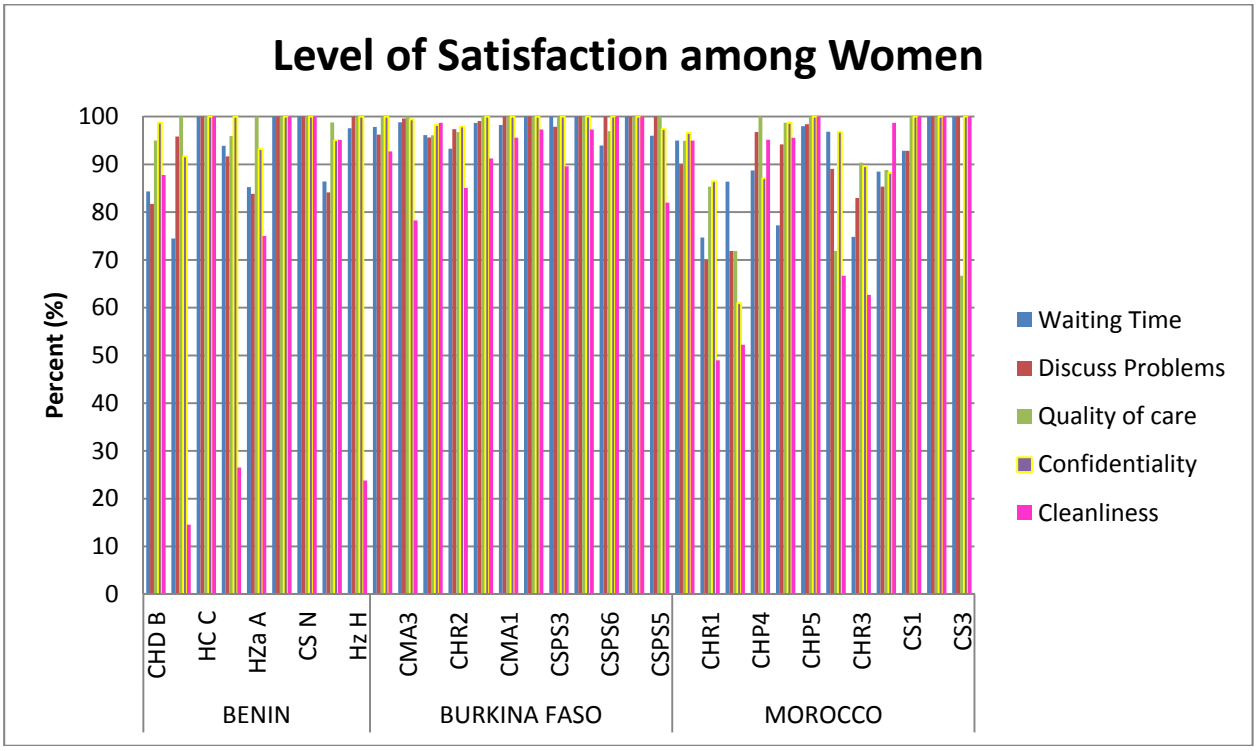
***Omission score for caesarean***: Negative or don't know responses to measurements of haemoglobin and foetal heart beat pre-surgery; prescription of antibiotics at any point; provision of oxytocin during procedures; measurements of blood pressure postpartum, respiration postpartum, pulse postpartum

***Omission score for early neonatal care***: Negative or don't know responses to measurements of baby heart during active phase, Apgar at 5 minutes; assessments of colour, breastfeeding and temperature during postnatal period

The quality of neonatal care, measured by the number of omissions in routine neonatal procedures, was very poor in some hospitals in Benin and Burkina Faso, and generally poorer than the quality of maternity care. Median delays in receiving caesarean sections were above the expected threshold of 1 hour in most hospitals (except in Morocco) and were the highest in Benin hospitals where the policy was designed to facilitate access to life saving emergency surgery. Hospitals in Morocco performed consistently better than hospitals in the other countries.

[12] The implementation score reflects the degree to which the free care/subsidy was realised for patients, in terms of reducing costs. The lower the payment for 'free' items, the better the implementation of the policy by the hospital.

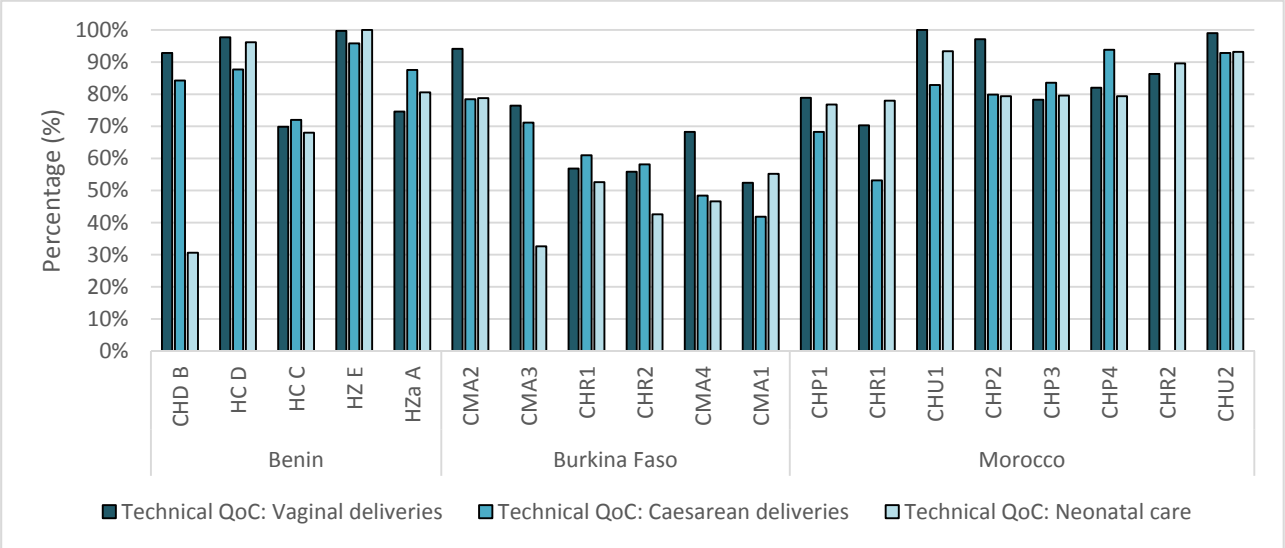
**Figure 11 Level of satisfaction amongst women who had delivered**




*Source: exit interviews*

Hospitals are still receiving many cases of near-miss, particularly maternal near-miss, with hospital incidence ranging from less than 1% in Morocco to just over 14% in Benin. As cases of maternal near-miss are women who nearly died and were saved in extremis, there is still a lot of progress to be made in the organization of the health services in order to reduce the burden of several morbidity and mortality in the focus countries.

**Figure 12 Omission scores (%)**




*Source: quality of care/near miss tool*

Our key hypotheses included that hospitals/districts with lower user fees cost may register shorter delays and fewer adverse events because women may arrive earlier in facilities; but that on the other hand, an increase in volume of patients, if not met with an increase in human resources, might lead to a deterioration of the quality of maternity and neonatal care. While in Burkina Faso, there seemed to be a positive correlation between average omission scores, average delays and the success of the implementation of the policy (Table 13), limited relationships exist between the omission and implementation score in Benin implying that quality of the care provided was affected by many factors which may be quite independent from policies designed to increased access.

**Table 13 Average omission scores compared to implementation scores in Burkina Faso facilities**

| Omission score | Facilities | PA4 | PA2 |
|---|---|---|---|
| | | Average omission score | Implementation score |
| Vaginal deliveries | CMA2 | 0.41 | 2 |
| | CMA3 | 1.65 | 1 |
| | CHR1 | 3.02 | 5 |
| | CHR2 | 3.09 | 4 |
| | CMA4 | 2.22 | 3 |
| | CMA1 | 3.33 | 6 |
| Caesarean sections | CMA2 | 1.51 | 2 |
| | CMA3 | 2.02 | 1 |
| | CHR1 | 2.73 | 3 |
| | CHR2 | 2.93 | 4 |
| | CMA4 | 3.61 | 6 |
| | CMA1 | 4.07 | 5 |
| Early neonatal care | CMA2 | 1.06 | - |
| | CMA3 | 3.37 | - |
| | CHR1 | 2.37 | - |
| | CHR2 | 2.87 | - |
| | CMA4 | 2.67 | - |
| | CMA1 | 2.24 | - |

*Source: quality of care tool & exit interviews*

## Country-specific observations

### *Benin*

Twenty eight percent of women interviewed were generally very satisfied with the overall quality of the services they received at the hospital, followed by 61% who were moderately satisfied and 11% who were not satisfied at all. Women complaints, when they existed, concentrated on cleanliness (particularly in three facilities), the fact that they had to pay for the toilet facilities and generally that staff were not welcoming.

Qualitative fieldwork also implied that the care provided was rarely patient-centred, with several examples of women reporting that they have been treated poorly, were asked to pay, and that their consent for surgery was not sought in an appropriate way. Some women interviewed linked the free caesarean section policy with their experience of less attentive health workers, indicating they

believed they received more support for their delivery and recovery when official payment was required.

Maternity ward staff largely felt positively towards the policy, as it made it easier to refer women for a caesarean section without the fear of burdening a family to come up with the money to pay for it. Some midwives said that maternity teams were able to act to undertake caesarean sections more quickly now that they did not have to wait for payment. On the other hand, health workers in one site indicated that removing the financial hurdle meant that some caesarean sections were done when they were not required but out of convenience to the health workers.

Technical quality of care was best (and very good) in two district level facilities (one urban, one rural), varied in the regional hospital, and poorest in a confessional hospital. For vaginal deliveries the average number of omission was 0.7 across the five included facilities. Among the 7 criteria included in the omission score for vaginal deliveries, the partograph was not done most frequently. The average omission score for caesarean section was 0.9 in all facilities, with the measurement for foetal heart rate and haemoglogin level not performed for 52% and 71% of caesareans. Very little importance appeared to be given to new born. Only 2% of babies received all the elements of care included in the score. Caesarean section delays were very long with an overall median of 1.4 hours, and the Porto Novo hospitals having the longest (Figure 13).

Although the hospital with the best implementation score, as measured by the average costs paid by users, also had the best quality, altogether the adequacy of the implementation of the policy seemed to have no negative or positive correlation with quality of care.

### *Burkina Faso*

Women in Burkina Faso reported they were satisfied with the length of waiting time, the quality of the treatment they received, the healthcare costs and with the availability of drugs. This satisfaction was noted everywhere except in the regions of CHR1 where 5% of women were unsatisfied with the cost and 23% were unsatisfied with the availability of drugs and in the regions of CMA3 and CHR2 where 20% and 13% respectively complained about the cleanliness of the hospitals. But generally, the women were satisfied with the care they received.

Technical quality of care was best for vaginal deliveries, but on average there were still 0.41-3.33 omissions per deliveries, and between 5%-48% of procedures during vaginal births were omitted in facilities. Some of the smaller facilities performed consistently better than the largest facilities, including CMA2 which had the lowest delay for caesarean section as well as the lowest omissions scores for all three indicators. This pattern was found to be unrelated to the number of vaginal and caesarean section per providers at the facilities. The absence of data from before the policy implementation does not allow us to appreciate the impact of the policy on the quality of care. However, the hospitals where the costs paid by households were the lowest were also the hospitals with the best technical quality of care as measured by their low omission scores, smaller delays and their low case fatality rate for severe complications.

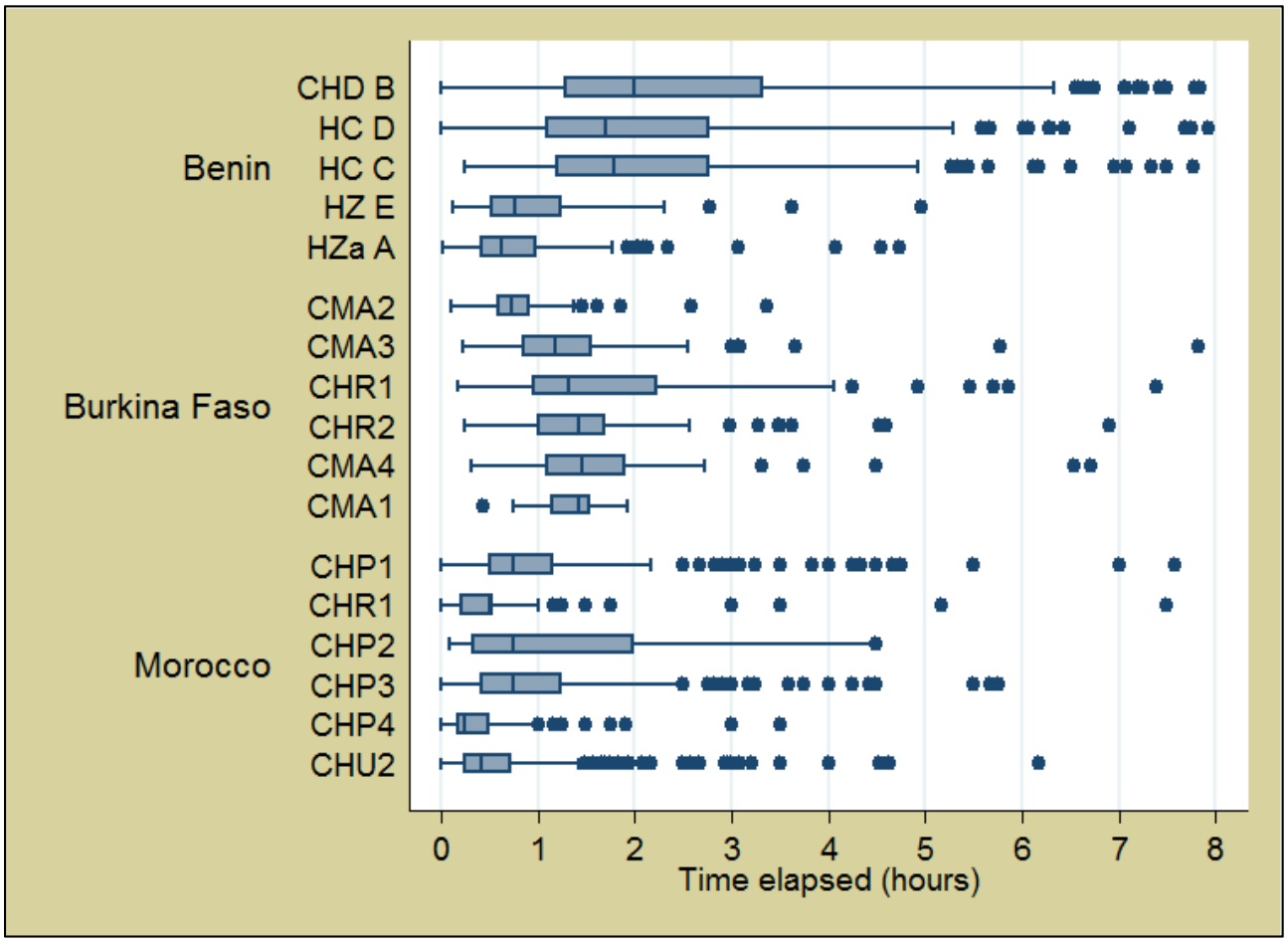
### *Morocco*

In Morocco, women were generally satisfied with care and services received. However, fewer women were satisfied with the services and care they received at the CHR compared with the other hospitals (CHU, CHP and CS). The level of satisfaction did also vary for the healthcare costs and opening hours of the hospitals. Qualitative fieldwork revealed that women declared a relatively rapid admission when they were referred, a better technical treatment in reanimation, and some members of staff no longer asked for “tips”. They lamented the lack of interest for the new born, with sometimes fatal consequences and hygiene still deficient in some wards. Families who are

obliged to pay seem to be an exception. The absence of empathy is often noted by women. In addition, mothers whose newborns die are not offered psychological care.

Technical quality of care was generally higher than in the two other countries, with the vaginal delivery omission score ranging from 0 to 2.1, the caesarean delivery score ranging from 0.43 to 2.22, and the neonatal omission score ranging from 0.33 to 1.1. However, when transforming these scores into percentage of cases receiving inadequate care, typically about 20% of babies did not receive all the procedures they needed (compared to about 10% for vaginal birth women). Median delays for caesarean sections were generally good and below 1 hour in all participating facilities.

**Figure 13 Median delays for caesarean sections in three countries**




*Source: near miss/quality of care tool*

In summary, quality of care is notoriously difficult to measure. Cultural characteristics and differences in local expectation could explain differences between Burkina and Benin in satisfaction with the care provided, as we did not observe major difference in the cleanliness of facilities for example. In addition, Benin has very high levels of skilled birth attendance and the population might be more demanding. While a good implementation of the policy was not always found to be related to technical quality of care, and perverse effects were revealed in Benin through observations, quality of care is unlikely to be affected in a significant way by the policies, but there is still a lot of work to be done to reduce the omission scores to a minimum and caesarean delays to international standards. Follow up care is also poor: fewer than half the women in most of the countries received

advice on future pregnancies or family planning, although some districts performed better than others.

# Impact on households

## Were households aware of the policy?

Knowledge of the existence of the subsidy policy in Burkina Faso varied among sites, averaging only 52% (Table 14). In Banfora, Bogandé and Yako it was reported that 66%, 69% and 84% respectively were aware of the subsidy policy but respondents in the remaining 3 sites were less informed about the policy, with only 20.5% in Houndé declaring they knew about the policy. In addition, in areas where cost sharing schemes were in place prior to the introduction of the subsidy policy, such as in Orodora, where only 38% were aware of the policy, it is believed that the population might not know the difference between the national policy and the local initiative.

Similar variation between sites was found in the other three countries, with even lower overall levels in two (53% in Mali but only 31% in Morocco and 20% in Benin). These results indicate that more information and awareness campaigns should continue to be cascaded down to the population level. If part of the policy intention is to change behaviour (by encouraging women to deliver in facilities, which is particularly the case for the broader policies, such as in Burkina Faso and Morocco), then the awareness of the population is a key indicator, which must be improved. Awareness here was ascertained after delivery, so it might reasonably be assumed that it was even lower prior to coming in to facilities to receive services.

**Table 14 Awareness of policy by women (%), across sites and by quintile**

| **Burkina Faso** n= 822 | **Sites** | **%** | **Quintile 1** | **Quintile 2** | **Quintile 3** | **Quintile 4** | **Quintile 5** |
|---|---|---|---|---|---|---|---|
| | Banfora | 66 | 45 | 51 | 57 | 50 | 55 |
| | Bogande | 69 | | | | | |
| | Gaoua | 33 | | | | | |
| | Hounde | 21 | | | | | |
| | Orodara | 38 | | | | | |
| | Yako | 84 | | | | | |
| | **Total** | **52** | | | | | |
| **Morocco** n= 262 | Settat | 28 | 17 | 18 | 31 | 29 | 36 |
| | Kénitra | 42 | | | | | |
| | Sidi Kacem | 23 | | | | | |
| | Boulemane | 71 | | | | | |
| | Fès | 1 | | | | | |
| | El Haouz | 44 | | | | | |
| | Marrakech | 11 | | | | | |
| | Ouarzazate | 42 | | | | | |
| | Tétouan | 19 | | | | | |
| | **Total** | **31** | | | | | |
| **Mali** n= 314 | Kayes | 58 | 39 | 19 | 39 | 47 | 72 |
| | Sikasso | 44 | | | | | |
| | Segou | 62 | | | | | |
| | Mopti | 48 | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Total | ***53*** | | | | | |
| **Benin**<br><br>n= 367 | Bembéréké/Sinendé | 14 | 41 | 48 | 43 | 58 | 71 |
| | Comè/Grand-Popo/Houéyogbé/Bopa | 8 | | | | | |
| | Dassa-Zoumè/Glazoué | 7 | | | | | |
| | Nikki/Kalalé/Pèrèrè | 10 | | | | | |
| | Porto-Novo/Aguégué/Sèmè-Kpodji | 60 | | | | | |
| | Total | **20** | | | | | |

*Source: Exit Interviews*

Overall awareness also overstates the level of specific knowledge on the policy. For example, in Morocco, among the 262 women who were aware of the policy, 23 women declared that everything was free during their stay at the hospital. Fifty percent knew that the delivery was free, 38% knew that caesarean sections were also free and 12% were aware that drugs were also free. Over 90% of women did not know whether blood transfusions or the referrals were included in the exemption policy.

Awareness also varies by quintile. In Benin, for example, the proportion of women poor in the lower two quintiles were significantly less informed than those in the richer households. However, the pattern is less clear in Burkina Faso and Mali.

## What were the main barriers to using services before and how were they affected by the policy?

There is a substantial literature on barriers to accessing maternal health care in low and middle income countries, summarised in various reviews, including (McNamee, Ternent, & Hussein 2009). Although barriers are complex and contextual, there is evidence that socio-economic status and education (strongly correlated) play an important role, and that other factors such as cost, distance and transport availability, perceptions of quality, cultural perceptions and women's autonomy are also important in many contexts.

The policies studied by FEMHealth attempted to address the financial barriers, and we examine below how effective they have been in that respect for households. Perceptions of quality of care were addressed above. In this section, we consider other barriers – particularly access, and factors affecting the decision to seek care, and consider what our research tools have shown us on the continuing role of these potential barriers during the implementation of the policy. Without baselines data, we can in general not talk about impact of the policy, but we can establish whether significant non-financial barriers remain to be addressed (without which the policy's effectiveness will be limited).

### Delays in seeking care

Within the exit interviews, questions were posed about the three delays in each of the countries (Table 15). The time between the onset of labour and when the woman left the house for the health facility varied widely from one region to another in Burkina Faso. In Bogandé and Yako, about 90% of women went to the health facility within four hours but only 20% and 25% in Houndé and Gaoua, respectively managed to go to the health facility within this time. The reasons for not attending the health facility immediately were varied. The majority reported that they were not aware they were at term and therefore they did not go to the health facility immediately after experiencing pain. Many either blamed the state of the roads during the rainy season which made their journey to the health facility difficult or complained that the vehicle broke down because of lack of fuel. Some

women had to wait for their relatives who live in different villages or for their husband who most of the time was in the fields to bring them to the health facility. For some women, it took longer to reach the health facility because they delivered on the way. Few reported that the decision-maker thought it was too early to go to the health facility.

**Table 15 Median delays accessing care across countries**

**Median delays accessing care across countries**

| Country | Leaving the house | | | Arriving at health facility | | | Seen at health facility | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1st Delay | | | 2nd Delay | | | 3rd Delay | | |
| | Median time | Range | | Median time | Range | | Median time | Range | |
| | | Min | Max | | Min | Max | | Min | Max |
| **Burkina Faso** | 1 h75 | 15 mins | 2 days | 1h25 | 15 mins | 2.5 days | 15 mins | 15 mins | 1.5 days |
| **Benin** | 6h | 0 | 6 days | 2h | 0 | 6 days | 10 mins | 0 | 2 days |
| **Morocco** | 3 h | 30 mins | 2 days | 45 mins | 15 mins | 14h | 23 mins | 8 mins | 4h |
| **Mali** | 2h50 | 30 mins | 14h | 30 mins | 30 mins | 14h | 30 mins | 30 mins | 4h |

*Source: Exit interviews*

In Morocco, the median delay between the onset of labour and the decision to go to the health facility was about 3.5 hours. About 75% of women took more than one hour before deciding to seek care at the health facility, with reportedly more women in Fes (58%) and 15% in Boulemane. For 26.5% of women, the delay in reaching the health facility was because they went to a different health facility first. Lack of transportation was also reported by 22% of women, most of whom (65,5%) were from El Haouz. However, almost 7% reported that they have been delayed by a lack of money, and of these women approximately 17% were from Ouarzazate and 16% from Tétouan.

On the whole, whatever the region, most of the women surveyed in Mali arrived at the health facility in less than an hour. In Segou for instance, more than half (77%) of women arrived in the health facility within an hour and a small proportion (12%) took one to four hours before arriving at the health facility. Only 1% of women who delivered in the same region took 5 hours and more before reaching the health facility. While some women were able to assess the time spent on the road, others could not. Approximately 10% of women in Segou did not know the time between when they left home and when they arrived at the health facility.

Overall, it is the husbands who take the decision to go to a health facility in Mali. In total 37% of husbands took the decision to go to a health facility and 25% of women took the decision themselves. In addition to husbands and women themselves, the decision was taken by the women's mothers in 11% of cases. Mother-in-laws took the decision in 8% of cases. Unlike other regions however, in Kayes, the decision is taken mostly by the women themselves (34%) and the husbands about 27%. The role of sisters-in-law and mothers-in-law are very low in the region of Kayes.

The reasons given for the delays in Benin were mainly because the women were not sure if they were in labour. Others claimed that they had their caesarean section planned and therefore there was no rush to go to the hospital. Other reasons given by women were that the mother-in-law had specifically asked them to wait, they had to wait for their parents or carers to accompany them,

labour started in the middle of the night and they preferred to wait until morning to go to the hospital.

Various transport means for getting to the facility were reported, with relatively few women with complications having used ambulances, but a much higher proportion of caesareans and complicated deliveries having done so, presumably as referral transport from lower level facilities (Table 16).

**Table 16 Use of ambulances, by delivery type, all countries (%)**

| | Mali | Benin | Burkina | Morocco |
|---|---|---|---|---|
| **Complicated deliveries** | 10 | 19 | 30 | 26 |
| **Caesareans** | 8 | 10 | 49 | 49 |
| **Normal Delivery** | 1.1 | 5.2 | 28 | 24 |

*Source: exit interviews*

## Overall responses from in-depth interviews

It emerged from the interviews with women who had had caesareans, near misses and normal deliveries that the free caesarean section policy in Benin had lifted one of the important perceived barriers to the utilisation of services in hospitals for many women who had previously resisted going to the hospital because of a lack of funds. The costs of hospital deliveries played out on the other challenges women encountered for giving birth at hospitals. For example, not having the decision-making power for household expenses or financial autonomy over their own budget meant in some cases that women would not consider going to hospitals in order to avoid the stress and criticism which incurring these expenses would bring about at home. The removal of these fees, according to interviews, could affect health seeking behaviour in the future. Other barriers played a role to varying degrees throughout different areas of the country – for example, social pressures demanding a woman be able to physically and emotionally "handle" a home birth; distances to health centres and the lack of transportation due to either physical or financial reasons; and comfort at home versus conditions at health centres and hospitals. Many women described the reasons for other women in their communities' choice to deliver at home as due to tradition or lack of education and financial means.

In Morocco, women's interviews about previous pregnancies revealed that the main barriers to hospital deliveries were financial, geographic (distance from health centres and lack of transport) and concerns about the quality of care received. After the implementation of the free delivery policy, these barriers appeared to persist, but to a lesser degree. There was a reduction in the costs for normal and caesarean deliveries; the quality of care in intensive care was almost unanimously appreciated, and admission procedures were perceived to be swift at reference centres.

In summary, median delays in leaving home, arriving at facilities and being seen were acceptable, although there was a large variation between sites and by type of delivery, and a wide range within the responses in general. The median delay in leaving the house was rather high in Benin. In addition, it is important to remember that this group represents those who were able to access care, and as shown in the equity analysis below, these are often not the most disadvantaged women. Perceptions of need, the availability of transport and the availability of the key decision-maker (who varied by site) emerge as significant. In-depth interviews with users suggest an appreciation and that

the policy did address some of the key barriers to access. However, to understand continuing barriers, it will be important to probe amongst non-users of the services.

## What was the impact of the policy on health seeking behaviour for vulnerable groups in particular?

We analysed the DHS data in three countries (Mali data was not yet available) to understand the changing profile of women using delivery and caesarean services over the period (Figure 14, Figure 15, Figure 16, Figure 17, Figure 18). Samples were stratified by public and private, where relevant to look at the different pattern of sectoral use across the quintiles. As less than 1% of women deliver in private facilities in Burkina Faso (and it is even lower caesareans), we did not do the public/private analysis for Burkina Faso.

In all 3 countries the relative inequity between the poorest and the richest has declined over time (in that there have been bigger gains among the poorest). The policy may have contributed to this but this is a longer term trend, and one which followed to some extent from the fact that richer women already had high coverage. In all 3 countries there remains substantial inequity in utilisation of care.

In all 3 countries there is a larger relative difference in utilisation of caesareans, compared to facility-based care. Inequity is however difficult to interpret with caesareans because the ideal is not 100% use, so the relative gap is not always meaningful. For example, in Morocco we have clear evidence of unnecessary caesareans taking place among the richest (Figure 15), and the middle-poorer groups are actually closer to the WHO's best guess as to the best caesarean rate for optimal health outcomes (5-15%). Without indication data it is hard to assess if need is being met or not. Burkina Faso's situation is quite different: the caesarean rate is only just reaching above 5%, even in the wealthiest group.

In Morocco, it can be seen that the top quintile and to some extent the fourth quintile make substantial and growing use of the private sector for deliveries (Figure 14). This alleviates the public finance burden of the policy as the rich self-select out of its use to some extent.

**Figure 14 Trend in deliveries taking place in public and private sector facilities stratified by relative wealth, in Morocco, 1987-2011 (DHS data)**

**Figure 15 Trend in caesarean sections taking place in public and private sector facilities stratified by relative wealth, in Morocco, 1987-2011 (DHS data)**

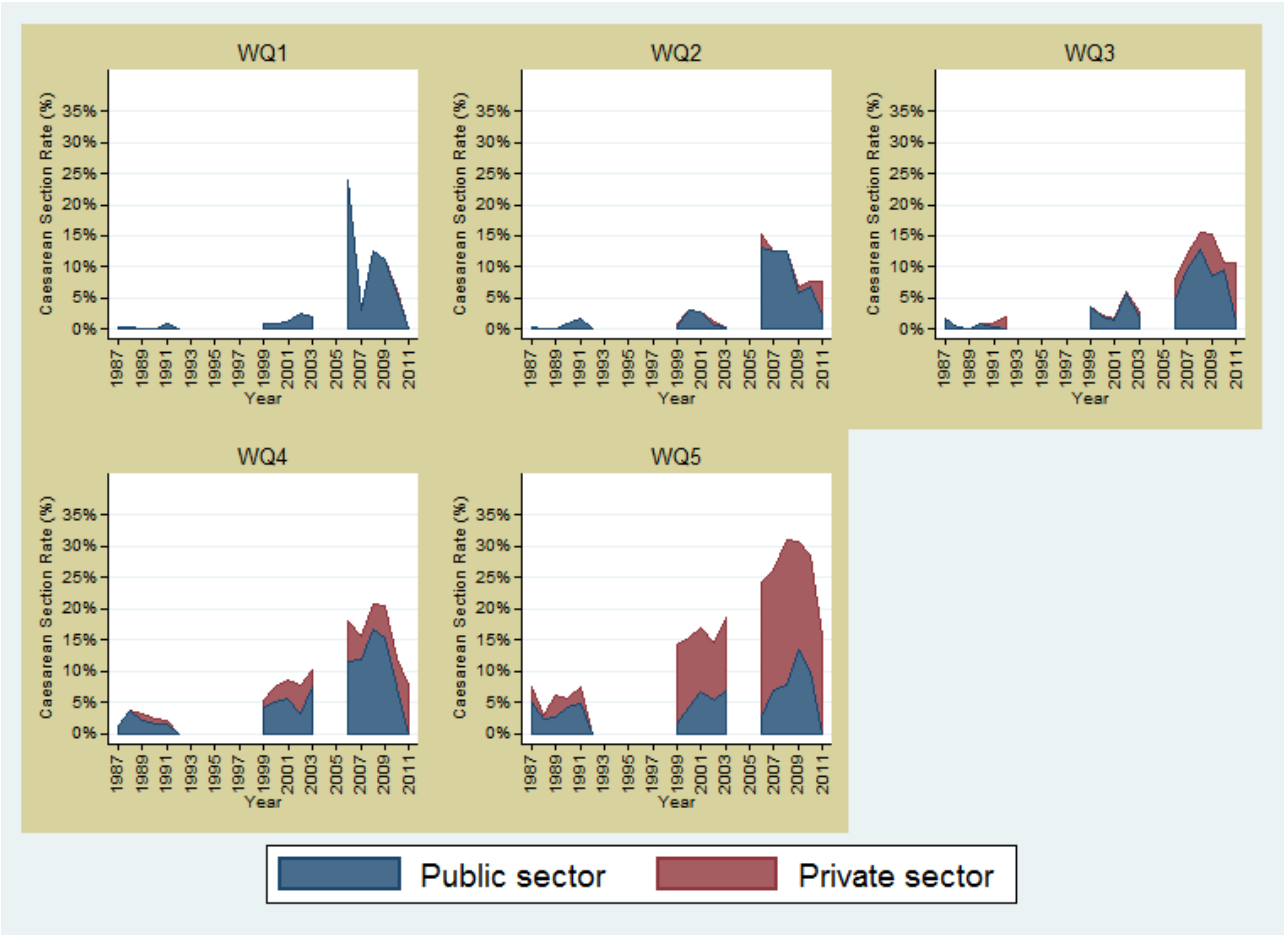
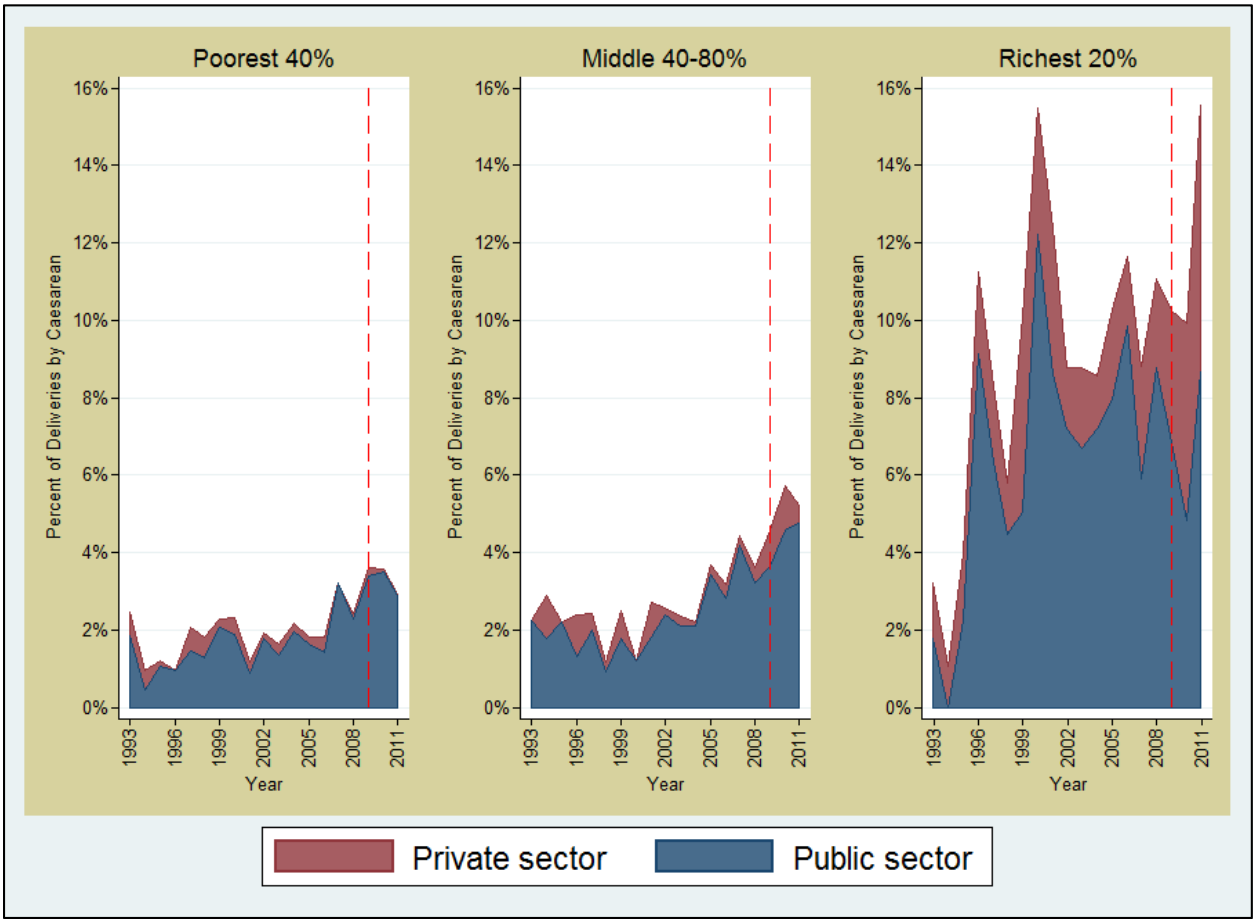
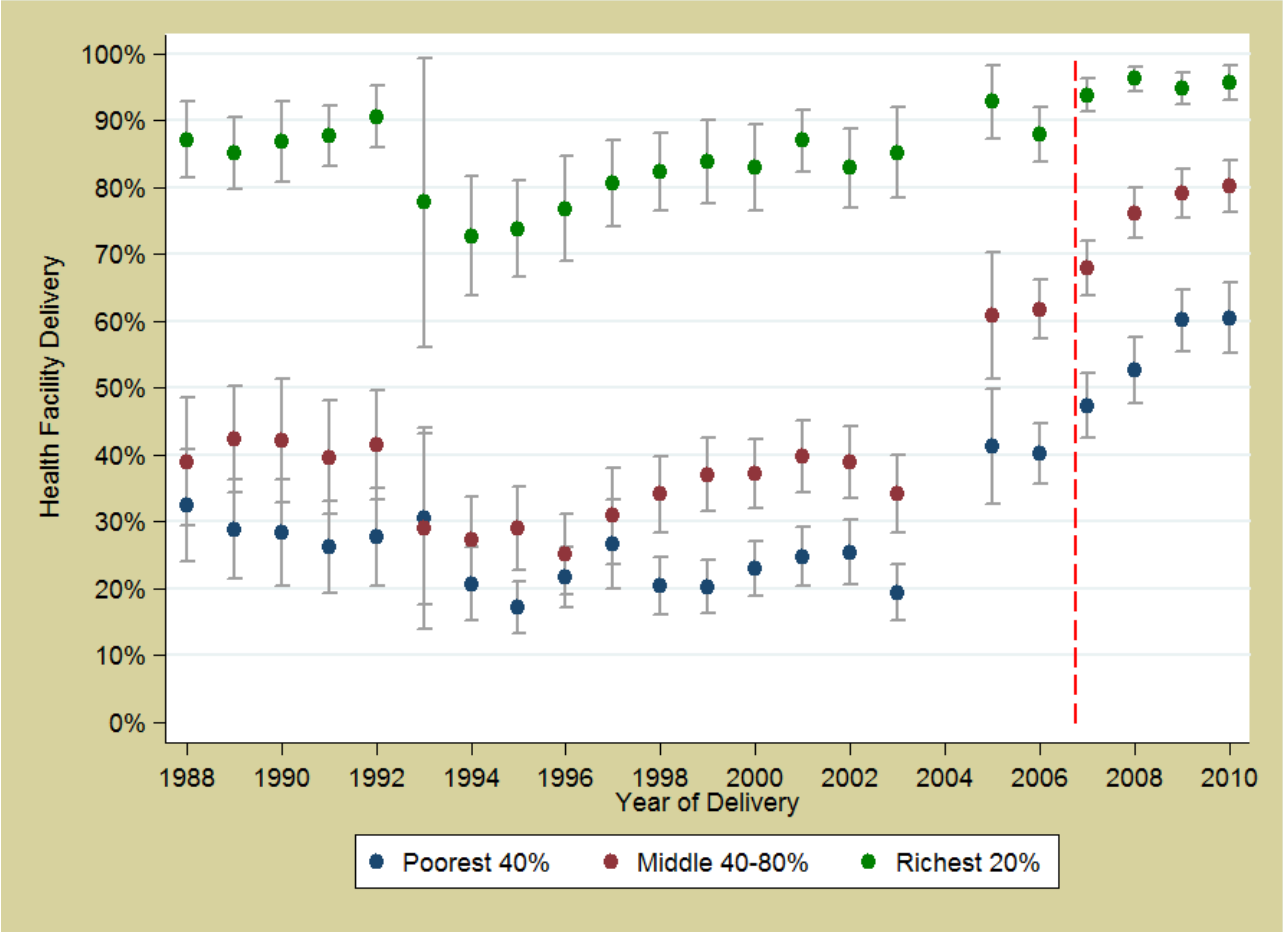


**Figure 16 Trend in caesarean sections taking place in public and private sector facilities stratified by relative wealth, in Benin, DHS data, 1993-2012**



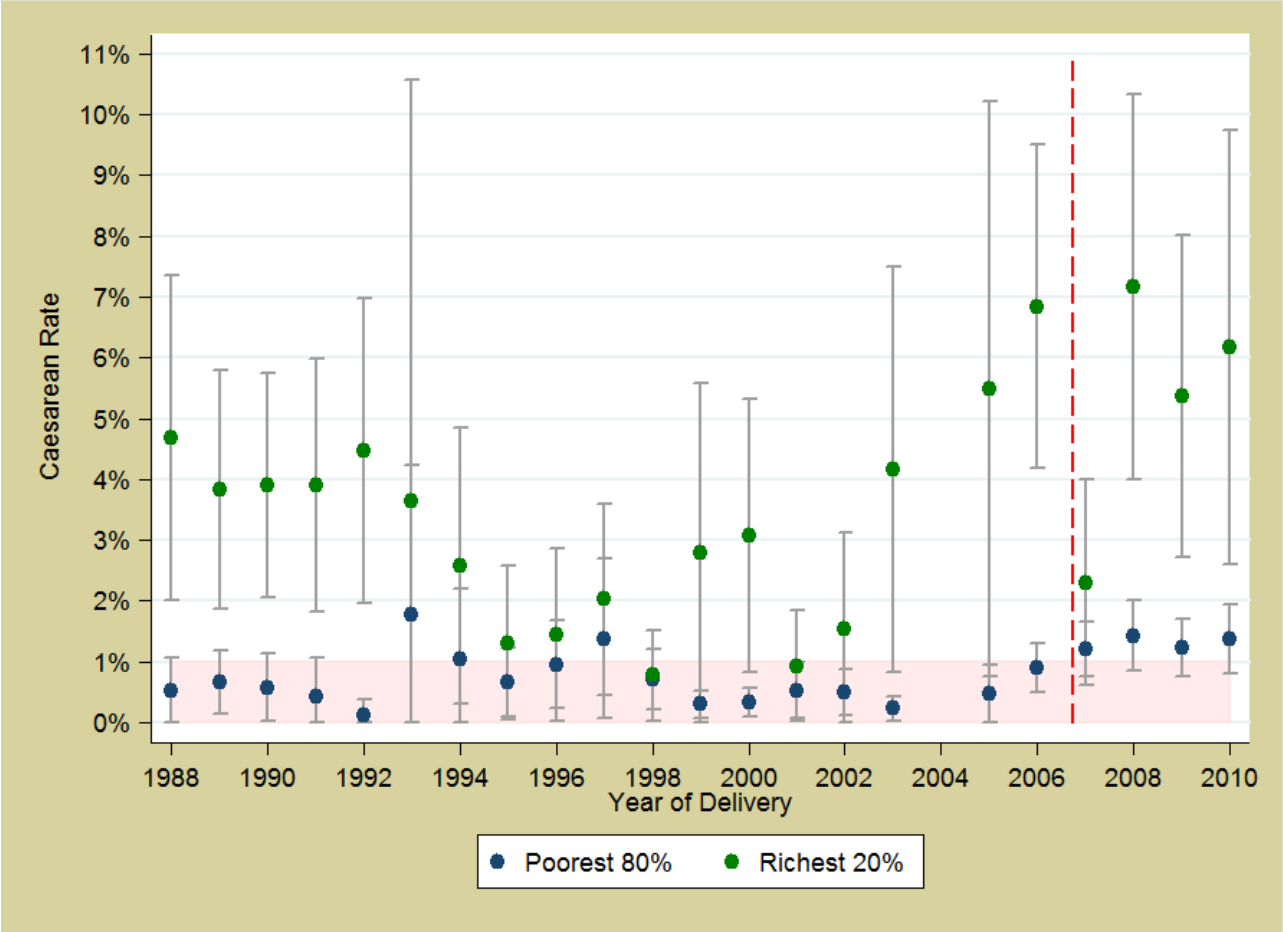

*Note: red-dashed line represents the introduction of the policy (April 2009)*

**Figure 17 Trend in health facility deliveries stratified by relative wealth, in Burkina Faso, 1988-2010**




*Note: red dashed line represents the start of the policy, at end 2006*

**Figure 18 Trends in caesareans stratified by relative wealth in Burkina Faso, 1988-2010**




*Note: red dashed line represents the start of the policy, at end 2006*

The in-depth interviews reinforce the conclusion that while the policy was appreciated and addressed an important barrier, it did not necessarily change health seeking behaviour. In Morocco, interviews showed that the choice of location for deliveries was made largely according to expected comfort, care and monitoring (for example, at home), and reassessed in cases where outside help was decided to be necessary as a matter of urgency.

When the women interviewed and their families were asked to discuss their care pathway, the health-seeking stage was complicated by the need to quickly find transport while the woman was in a weakened physical and mental state. Transport by ambulance, if available, came at a charge and skilled personnel did not always accompany the journey. In situations where no ambulance was available, "the difficulty in reaching the paved road" was key – even this first step came at such a potentially immense cost that the calculations began already at home, not at the hospital. Some women raised the issue of the difficulty in reaching the reference hospitals, and questioned why they could not benefit from the policy at a centre closer to their home.

At the hospital, the absence of a doctor, the gaps in surveillance, inadequate resources, and tedious negotiation process to receive the desired care were all aspects known and anticipated by women when considering their recourse to care.

In Benin, at this stage after the introduction of the policy, there was no evidence from the interviews or observations that women modified their decision to seek out skilled professionals at birth due to

the policy. While the policy was appreciated and the costs of caesareans were considered to be more affordable than in the past, the policy does not erase the fear of the caesarean as a medical procedure and the threat of loss of life. Decisions about where to give birth were based on hospital reputation, convenience of access and past delivery experiences.

## What was the economic impact on the household?

In this section we use data from the exit interviews and in-depth interviews with women to understand the payments which households are now making, and how far they diverge from the rates which should be paid under the policies, in theory. This is one measure of economic impact, as well as of policy effectiveness. We also consider the proportion paying catastrophic amounts, in relation to household expenditures, and what the payments imply in terms of household coping strategies. The proportion of women who were unable to pay their bills, under the policy, is another important indicator, and whether they had to leave early or late on account of not being able to pay their bills. Finally, we consider the financial benefit for households, using prior data, where available, to calculate the average financial gain for households in terms of payment for services.

### Current payments for deliveries

The total amount spent per woman during the hospital stay in Burkina Faso averaged 13,107 FCFA, ranging from 8,582 (in Orodara) to 17,623 FCFA (Banfora). This amount consisted primarily of the kit for the treatment, the transportation costs of the pregnant woman, drugs and consumables, and para-clinical examinations (laboratory tests and imaging). Other expenses such as food expenditure and health personnel costs (even if they are relatively small) were also reported. It should be noted that in addition to the national subsidy policy for EmONC, there were additional local initiatives in place to reduce costs. For instance, Orodara and Yako operate a cost-sharing system which explains why the amount spent by women in these areas are lower (8,582 and 9,260 FCFA respectively) compared to other regions while in Bogandé, caesareans are free. When transportation costs and food for the carers are taken into account, the total expenditure per delivery averaged about 16,000 FCFA, ranging from 10,772 FCFA (in Orodara) to 20,702 FCFA (Banfora). Out of this amount, about 1,800 FCFA was for drugs paid outside of the health facility, ranging from 550 FCFA in Orodara to 3,261 FCFA in Yako. Women in Yako had to pay the highest amount on drugs purchased outside of the health facility followed by women in Gaoua.

The sum paid to the health facility and the total expenditure per delivery varies depending on the level of the health system. For instance, in Burkina Faso the total expenditure per delivery at the CSPS level was lower (2,724 FCFA) than the expenditure at the CMA (16,276 FCFA), which also was slightly lower when compared to the total expenditure per delivery at the CHR level (21,633 FCFA). When these expenditures were compared to spending in the past month they were also much lower at CSPS (9%) than at the CMA (53%) and CHR (66%) levels. It is to be noted that some of the differences between the different health facilities may be due to differences in case loads.

The total sum women spent on a normal delivery in Benin averaged 40,707 FCFA and 39,304 FCFA for a caesarean section. The costs of both interventions varied depending on the hospital the women attended. Deliveries at the CS level cost less than those carried out at the Hôpital de Zone and department hospital. However, we also notice differences in costs according to regions.

In Morocco 699 women (71.8%) declared they did not pay anything during their stay at the hospital, 99 women (9.4%) were unaware whether they had paid anything and 183 women (18.8%) said they had to pay for some items during their stay. The average cost per delivery in Morocco was estimated to be a 674 MAD. Among those who had to pay, the majority (131 out of 183) were women who had a caesarean section and who delivered in a CHU (88/131). For those who did not deliver in the CHU,

the three main items they had to pay for either partially or in their entirety were (i) drugs (7.8%), (ii) payment to the health workers including gifts (4.2%) and the consumables (3%).

Women in Mali paid an average of 34,320 FCFA for a delivery, including costs inside and outside of the hospitals. Those who had a normal delivery paid an average of 20,903 FCFA whilst women with complicated deliveries and caesarean sections paid 32, 813 FCFA and 32, 256 FCFA respectively.

Current total expenditure by the household per caesarean, even after the implementation of the free care and subsidy policies, absorb a considerable proportion of household monthly expenditure (which is a proxy for income) – ranging on average from 35% in Morocco to 71% in Benin (Table 17). This is clearly above catastrophic levels, though of course we have to bear in mind that caesareans are not a regular household expenditure. Payments for normal deliveries are still substantial but lower (Table 18).

**Table 17 Total payment per caesarean section (in Euros) and % as proportion of household monthly expenditure**

| | HH Expenditure per month | Excess amount paid per CS | Total payment for CS | Excess as % of total payment | Payment per CS as % of median household expenditure |
|---|---|---|---|---|---|
| Burkina Faso | 61.89 | 6.25 | 36 | 17 | 58 |
| Morocco | 178.26 | 1.44 | 63.2 | 2 | 35 |
| Benin | 90.89 | 8.74 | 64.54 | 14 | 71 |
| Mali | 100.90 | 23.92 | 49.2 | 49 | 49 |

*Source: Exit interviews*

**Table 18 Total Payment per normal delivery in Burkina Faso and Morocco (in Euros) and % as proportion of monthly household expenditure**

| | HH Expenditure per month (EUR) | Excess amount paid per ND (EUR) | Total payment for ND (EUR) | Excess as % of total payment | Payment per normal delivery as % median HH expenditure |
|---|---|---|---|---|---|
| Burkina Faso | 61.89 | 0.61 | 16.23 | 4 | 26 |
| Morocco | 178.26 | 3.12 | 48.73 | 6 | 27 |

*Source: Exit interviews*

Excess refers to payments for items which are explicitly included in the exempted package of care (or over the basic tariff, in the case of Burkina Faso)

**Total payment refers to the total cost of a caesarean (costs paid inside the hospital incl. gifts to personnel, costs of prescribed drugs bought either at the hospital or private pharmacy and the costs of carers)

In relation to the amounts which should have been paid by households under the policies, we found that they are paying excessive amounts in all countries, though the excess payments are relatively low for Morocco (2% of their total payment for caesareans and 6% for normal deliveries), which indicates a relatively effective implementation of the policy. By contrast, in Mali, 49% of the household payment is excessive. Intermediate proportions of 13% (for Benin) and 17% (for Burkina)

were found for caesarean sections. The absolute amounts paid in Benin were higher than for Burkina, as the overall payments were higher.

Total household costs per delivery by quintile are presented in Figure 19, Figure 20 and Figure 21 for normal deliveries, complicated deliveries (excluding CS) and caesareans respective. Table 19 shows the proportion of household expenses absorbed by the delivery, by quintile and location. For Burkina[13], costs are generally higher in rural areas, though with exceptions for quintile 2. The differences in absolute payments across quintiles are not remarkable, and the proportion absorbed by them is variable across the quintiles.

For Morocco, the differences in amounts are small across the quintiles and there is no clear pattern of difference between rural and urban areas. As a proportion of household income, payments fall for higher quintiles in urban areas, though the pattern is less clear in rural areas. Overall amounts paid are comparable to Burkina, whereas they are higher in general in Mali and Benin.

In Mali, there is a mixed pattern across the quintiles and areas. Overall payments are similar to Morocco and Burkina Faso. As a proportion of household expenditure the urban poorest pay the highest proportion (147% of monthly overall expenditure).

In Benin, there is a general pattern, with one exception, of increasing payments for caesareans in absolute terms across the quintiles, for rural and urban households. As a proportion of household expenditure, Benin's households face the highest burden in general of the four countries, with a varying pattern across the quintiles for both rural and urban areas.

**Table 19 Total expenditure per delivery* as % of household expenditure, by rural/urban location and by quintile**

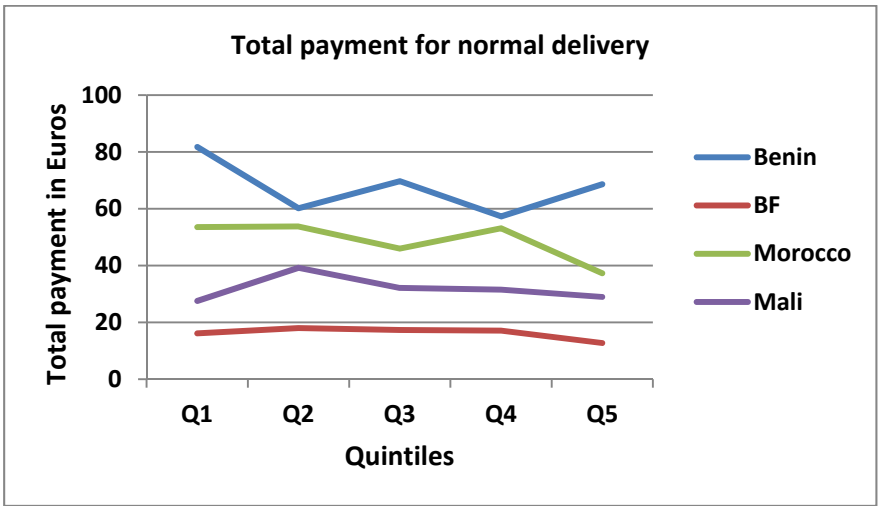
| | Quintile 1 | | Quintile 2 | | Quintile 3 | | Quintile 4 | | Quintile 5 | | Average payment (Euros) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Urban** | **Rural** | **Urban** | **Rural** | **Urban** | **Rural** | **Urban** | **Rural** | **Urban** | **Rural** | |
| **Burkina Faso** | 56 | 71 | 115 | 78 | 35 | 124 | 40 | 60 | 23 | 60 | 50 |
| **Morocco** | 52 | 54 | 44 | 58 | 35 | 32 | 31 | 36 | 23 | 69 | 49 |
| **Mali** | 147 | 64 | 49 | 50 | 89 | 62 | 32 | 37 | 34 | 52 | 50 |
| **Benin** | 139 | 174 | - | 114 | 98 | 150 | 84 | 135 | 100 | 83 | 68 |

*Total payment refers to the total cost of delivery (costs paid inside the hospital incl. gifts to personnel, costs of prescribed drugs bought either at the hospital or private pharmacy, the costs of carers and transport costs)

*Source: Exit Interview*

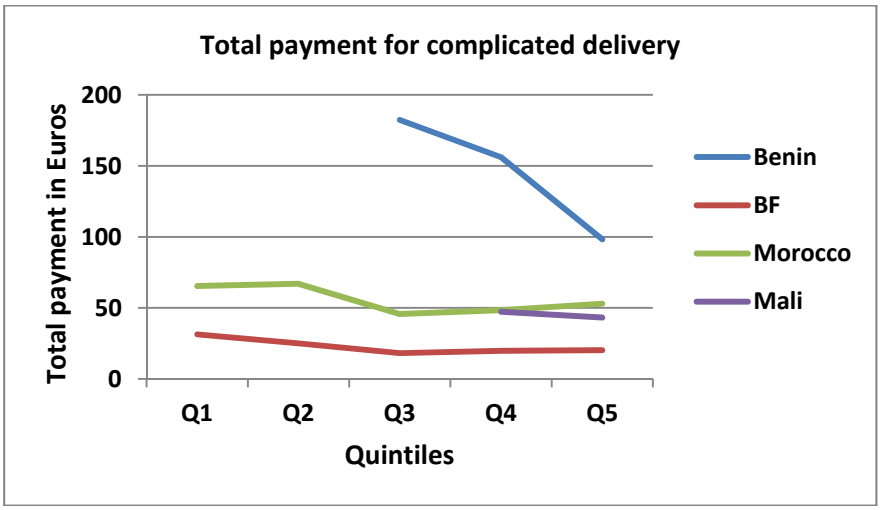
[13] In Burkina, households were classified as rural, urban and peri-urban. For the purposes of this analysis, peri-urban has been considered to be urban.

**Figure 19 Total payments for normal deliveries, all countries, 2012 (Euros)**



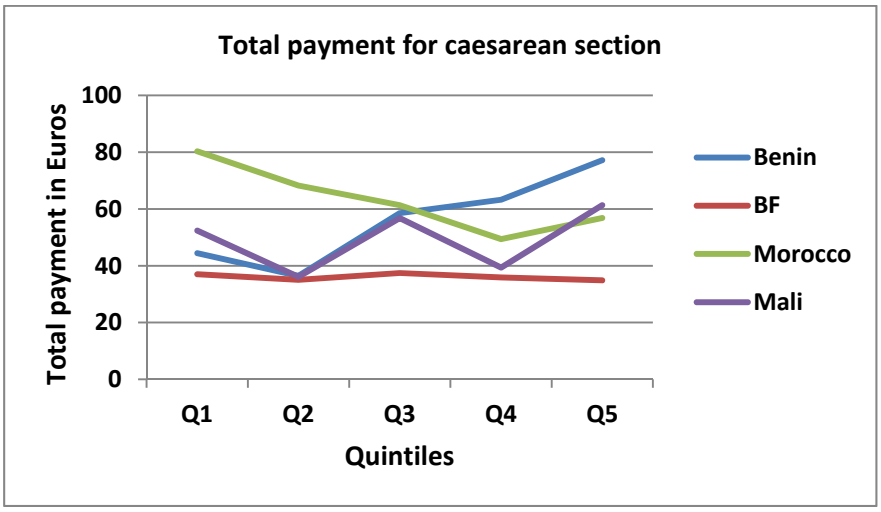

*Source: Exit interviews*

**Figure 19 Total payments for complicated deliveries (excluding CS), all countries, 2012 (Euros)**




*Source: Exit interviews*

**Error! Reference source not found.** **Total payments for caesareans, all countries, 2012 (Euros)**




*Source: Exit interviews*

In in-depth interviews in Benin and Morocco it was clear that for most families, even with the implementation of the policy, the services were not "free" as their titles suggested. In Morocco, women interviewed generally paid for ambulance transfers, and, in the absence of ambulances, paid for any other route to the hospital – be it taxi, getting a lift from an acquaintance, or personal vehicle. In addition, giving birth away from home necessarily incurred charges for the family: purchasing food for the delivering mother and companions, medical tests, medications, tips to health workers, and, for companions, lodging charges either within or outside of the hospital campus, their food and transport costs in addition to any lost wages due to not being at home or able to work. Hospitals charge 80 MAD per night for companions to stay, which can mean that traveling back and forth between home and the hospital may be cheaper, though suggests less support to the women. Total charges varied according to the type and length of stay, and could be aggravated by missing equipment and medications (incurring added charges) and the tipping culture that was still pervasive in the hospitals.

In Benin, the costs associated with delivering by caesarean were considered more affordable than prior to the launch of the policy, but charges remained. Even some families that knew they were scheduled for caesareans and understood that they were now "free" expected to pay as much as 50,000-70,000 FCFA for a routine (caesarean) delivery due to associated charges such as care for the newborn, medications, and informal payments to health workers. Repeatedly in interviews the cost for newborn care was highlighted for its burden on the budget. Women and their families who were near-miss or had other complications that were not covered by the caesarean section policy were more likely to complain of the cost of their delivery and hospital stay. In hospitals such as Hz A, where normal deliveries had a base charge of 20,000 FCFA to discourage women from going there in the first instance, charges for vaginal deliveries were considered "unreasonably" high, even though these fees were not hidden. In situations where women and their companions recounted stories of bribery and questionable charges, anger was expressed at the unnecessary costs that they, in hindsight, felt tricked into paying, making the burden of the expense greater than solely financial.

The overall summary is that despite reductions in charges, households are still paying considerable costs. Policy implementation effectiveness is highly variable across countries and sites, linked to the level of system and the implementation factors discussed in this report. Certain costs, including transport, cost of companions, care of newborn (in some countries), tipping of health workers and

supplementary drugs remain a burden. Lack of clarity on charging can also reduce predictability of costs and cause anger and confusion for women and their families.

## Catastrophic payments

The table below indicates in percentage terms how many women incurred catastrophic expenditure as a result of paying for the total costs of deliveries (Table 20). It is immediately evident that the policies have not succeeded in bringing delivery costs down to affordable levels, although again we need to emphasise that these 'catastrophic' expenditures are at least periodic and not regular occurrences for the households.

**Table 20 Percentage of women incurring catastrophic expenses for deliveries across countries**

| Countries | Quintile | % incurring catastrophic expenditure | Urban | Rural |
|---|---|---|---|---|
| **Burkina Faso** | Quintile 1 | 82% | | |
| | Quintile 2 | 76% | | |
| | Quintile 3 | 75% | | |
| | Quintile 4 | 72% | | |
| | Quintile 5 | 48% | 54% | 76% |
| **Benin** | Quintile 1 | 88% | | |
| | Quintile 2 | 81% | | |
| | Quintile 3 | 80% | | |
| | Quintile 4 | 83% | | |
| | Quintile 5 | 76% | 84% | 77% |
| **Morocco** | Quintile 1 | 88% | | |
| | Quintile 2 | 79% | | |
| | Quintile 3 | 73% | | |
| | Quintile 4 | 63% | | |
| | Quintile 5 | 66% | 87% | 79% |
| **Mali** | Quintile 1 | 93% | | |
| | Quintile 2 | 88% | | |
| | Quintile 3 | 89% | | |
| | Quintile 4 | 86% | | |
| | Quintile 5 | 80% | 53% | 73% |

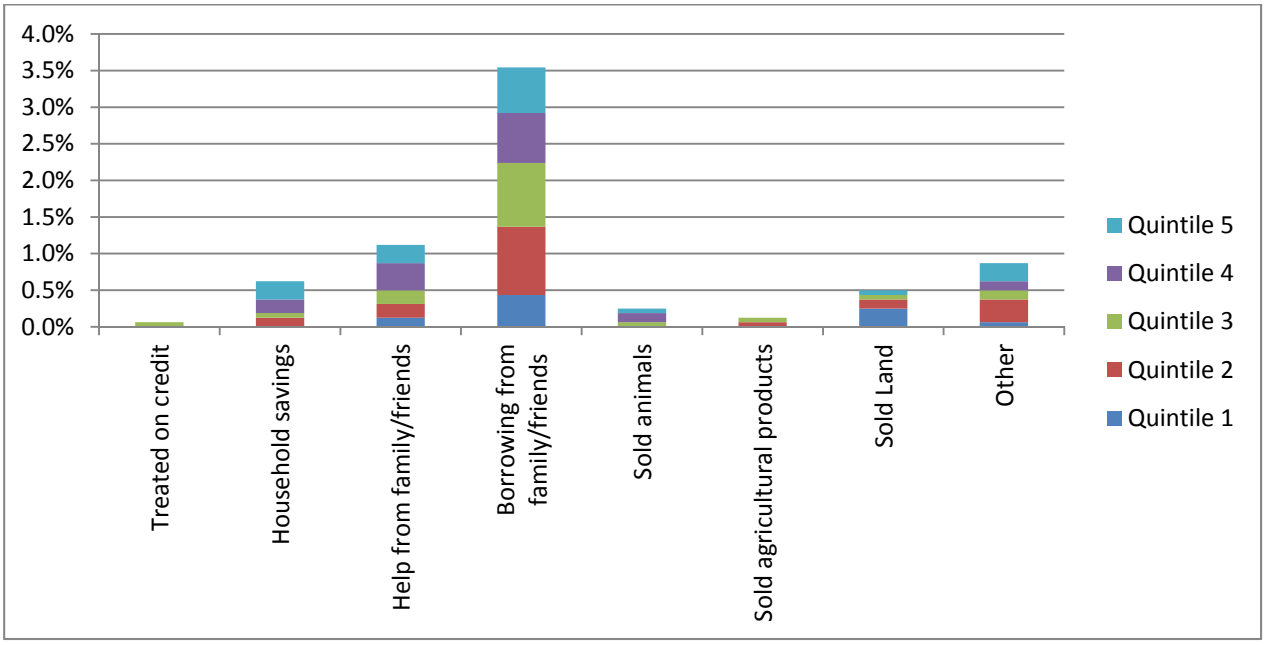
*Catastrophic expenses = if total cost is higher than 15% of household monthly expenditure

*Source: Exit interviews*

## Household capacity to pay and coping strategies

In Burkina Faso, 93% of households managed to ensure all the payments that were required for their delivery. In the region of Orodara, 96% of women manage to pay for all costs, followed by women in Yako (94%) and 92%, 90% and 88% of women in Hounde, Gaoua and Bogande respectively. Figure 20 indicates the different coping mechanisms households relied upon to pay for the costs of childbirth in Burkina Faso. Borrowing from family and friends is the key coping mechanism. 1% of women reported leaving the facility late because of having payment difficulties.

**Figure 20 Coping strategies for delivery payments, by quintile, Burkina Faso**

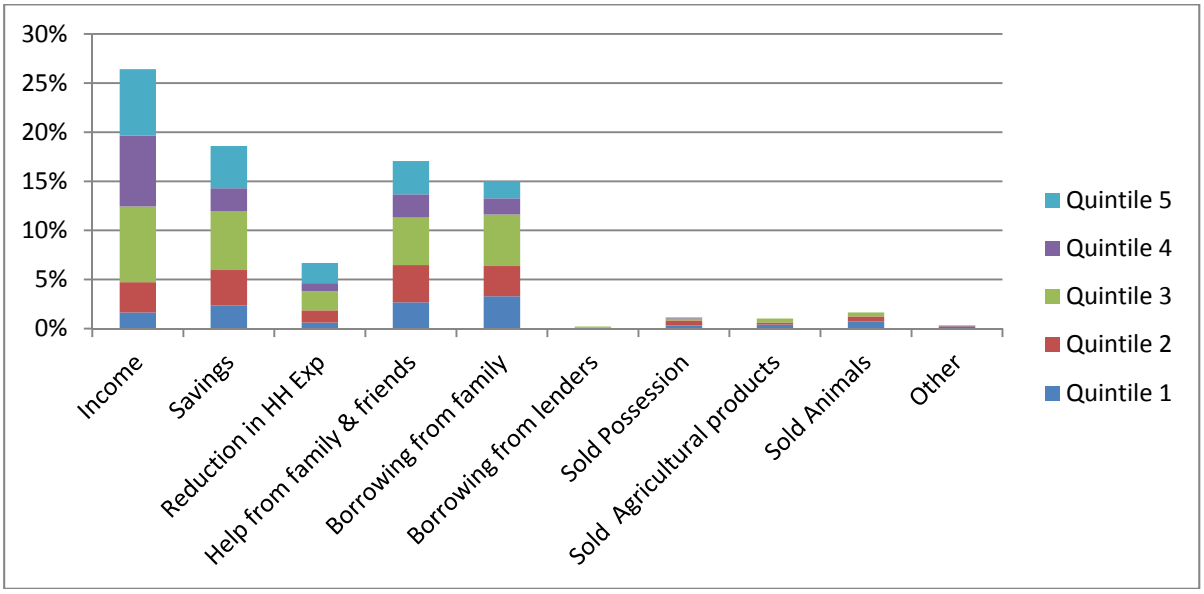



*Source: Exit interviews*

44% of women surveyed in Morocco were able to ensure all payments that were required of them, 23% were unable and 20% of women had nothing to pay. For most women (69%), it is their husband who paid the costs of delivery. For most households, income and savings were the main sources of payments for the costs incurred in hospital (Figure 21). However, those in the first quintile are more likely to have borrowed money from family members or a lender, or been forced to sell assets. Seven women in the second quintile were forced to sell their agricultural land to pay for the costs of the hospital delivery.

About 10% of women in Morocco stayed longer in the hospital because they could not afford to pay for costs associated with the delivery. Among those who said they stayed longer, 11% were in the second quintile of poverty and 10% were in the third. However, most women (about 85%) left hospital on time.

**Figure 21 Coping strategies for delivery payments, by quintile, Morocco**



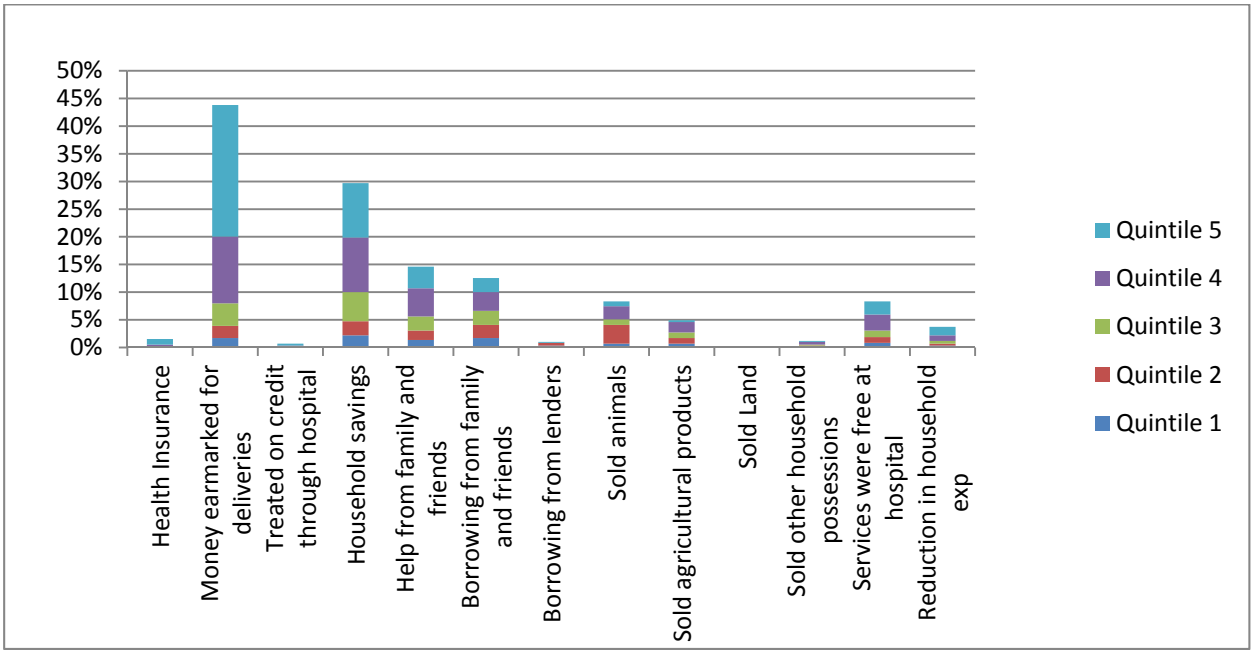

*Source: Exit interviews*

In Mali, 95% of women and their households were able to pay for delivery costs, while 4% were unable (and 1% of women did not know). Among the quintiles, the very poor and the poor quintiles were able to cover the costs with 27% and 31% respectively.

Overall, the costs of delivery were paid by the spouse/partner in 76% of cases, followed by other household members (27%). 45% of women said that the money used to pay for the delivery costs came from money earmarked for delivery, particularly in the upper quintiles (Figure 22). 30% of the women (largely in poorer quintiles) addressed the delivery costs by using household savings. Borrowing from friends or family, and family/friends' support were also important in financing costs related to deliveries in some cases.

Only 35 women (6%) stayed longer in hospital due non-payment of delivery costs – this rate was halved in the top quintile (3%).

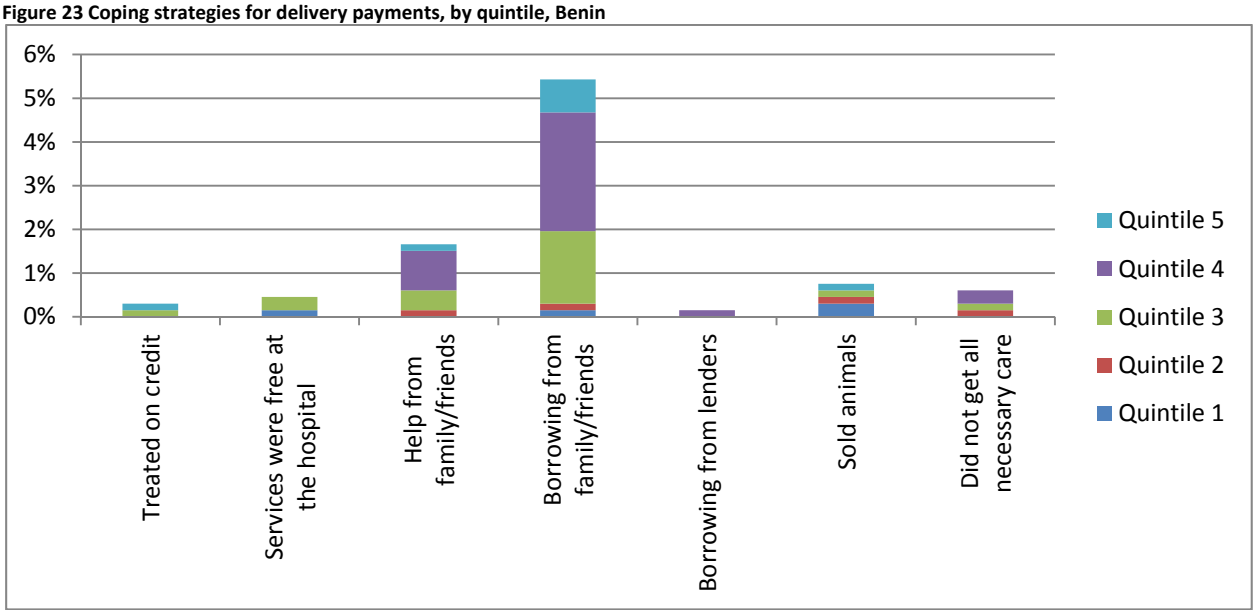
**Figure 22 Coping strategies for delivery payments, by quintile, Mali**




*Source: Exit interviews*

The majority of women in Benin were able to pay for costs related to childbirth. Only 9% were unable to ensure all the payments that were required at the hospital. Some women from the poorest quintile reported that the services were free at the hospital and therefore did not have to pay for them. It seems that most women relied on money borrowed from family and friends (especially in the lower quintiles) and sale of animals to cope with the payments required ( Figure 23). A small proportion of women also reported they could not access all the necessary care because they were unable to pay for the services. Interestingly, no households declared that they had to sell any belongings: none sold their house, their land or any agricultural products. None of the women interviewed in Benin used their household savings or reduced their household expenditure to pay for the costs of childbirth. This could however be because these women do not have sufficient savings or cannot reduce their household expenditure any further.

**Figure 23 Coping strategies for delivery payments, by quintile, Benin**




*Source: Exit interviews*

The proportion unable to pay is shown below (Table 21). It demonstrates the variation by district (linked to economic status but also the implementation of the policy). Across the quintiles, there is in general the expected gradient, with larger proportions unable to pay in lower quintiles in general. Comparing across the countries, it is surprising that there is a higher proportion unable to pay in Morocco, which is not only a higher income country, but also one with relatively thorough policy implementation. This may reflect differing interpretation of the question or perhaps different support networks.

**Table 21 Inability to pay for delivery costs, by site and quintile (%)**

| | Sites | Percentage (%) | Quintile 1 | Quintile 2 | Quintile 3 | Quintile 4 | Quintile 5 |
|---|---|---|---|---|---|---|---|
| **Burkina Faso** | BANFORA | 19 | 12 | 10 | 8 | 4 | 6 |
| | BOGANDE | 2 | | | | | |
| | GAOUA | 3 | | | | | |
| | HOUNDE | 2 | | | | | |
| | ORODARA | 0 | | | | | |
| | YAKO | 11 | | | | | |
| | Total | 6 | | | | | |
| **Morocco** | BOULEMANE | 11 | 30 | 24 | 22 | 24 | 18 |
| | EL HAOUZ | 34 | | | | | |
| | FES | 32 | | | | | |
| | KENITRA | 27 | | | | | |
| | MARRAKECH | 10 | | | | | |
| | OUARZAZATE | 35 | | | | | |
| | SETTAT | 4 | | | | | |
| | SIDI KACEM | 44 | | | | | |
| | TETOUAN | 31 | | | | | |
| | Total | 25 | | | | | |
| **Mali** | KAYES | *6* | 6 | 4 | 0 | 1 | 4 |
| | SIKASSO | 2 | | | | | |
| | SEGOU | 4 | | | | | |
| | MOPTI | 3 | | | | | |
| | Total | 4 | | | | | |
| **Benin** | ZS Bembéréké/Sinendé | 2 | 24 | 13 | 11 | 10 | 5 |
| | ZS Comè/Grand-Popo/Houéyogbé/Bopa | 2 | | | | | |
| | ZS Dassa-Zoumè/Glazoué | 17 | | | | | |
| | ZS Nikki/Kalalé/Pèrèrè | 14 | | | | | |
| | ZS Porto-Novo/Aguégué/Sèmè-Kpodji | 10 | | | | | |
| | Total | 9 | | | | | |

*Source: Exit interviews*

### *Health insurance protection*

In Burkina Faso, very few women (about 2.2%) had a health insurance. Most of the women who had health insurance were from Orodara (6.6%) whilst only 0.6% of women in the Banfora region have a health insurance.

In Mali, 19 households (3.2%) were subscribed to the mandatory health insurance (*Assurance Maladie Obligatoire*) against 2% who were members of a mutual health. Approximately 1.4% of households subscribed to other micro insurance and 0.3% of women revealed they were unaware of their insurance situation. Women from insured households in Mali spent more than uninsured households, though this may be reimbursed later. Richer households were more likely to be covered by the AMO, while poorer households were more likely to subscribe to micro insurances.

In Morocco, 14% of women had health insurance membership and there was no notable difference between what the insured and non-insured women paid for their deliveries. Membership was biased towards the higher quintiles.

Only 3% (20 out of 663) of women were subscribed to a health insurance in Benin. Women from the poorer quintiles had no health insurance, followed by 1.2% of women in the middle and 4% in the richer quintiles.

In general, health insurance was not a protective mechanism for most households, and is generally pro-rich in its distribution.

## Financial gains for households from the policies

Looking at the difference in amounts households paid for deliveries before and their current median expenditure (Table 22), we can see that they have made financial gains in all four countries, though of differing magnitudes. In Burkina Faso, there was a reduction of 71% for deliveries of all kinds. In Morocco, the gain is lower for normal deliveries (62%), compared to 92% for caesareans. In Benin, users saved an estimated 74% of the cost of a caesarean, while in Mali, it was 78%.[14]

**Table 22 Estimated household financial gains from the policies**

| Country | | FCFA |
|---|---|---|
| **Benin** | Cost to patient of caesarean[15] | 36 214 |
| | Average tariff for a caesarean (before the policy) | 140,039 |
| | Average cost savings | 103 825 |
| | Financial gain as % of original payments | 74% |
| | Average Exp per caesarean section by gvt | 100,000 |
| **Mali** | Cost to patient of caesarean | 32,256 |
| | Average payment for a caesarean (before the policy) | 150,000 |
| | Average cost savings | 117,744 |
| | Financial gain as % of original payments | 78% |

[14] Note however that the baseline figures are not exactly comparable as we have had to use figures from other sources and studies. We have however adjusted as far as possible to ensure that like for like is being compared.

[15] This cost is taken from three hospitals in the study which match in type to the baseline study data sources, so does not represent the full FEMHealth sample.

| | | |
|---|---|---|
| | Average Exp per caesarean section by gvt | 60,000 |
| **Burkina Faso** | Cost to patient of normal delivery | 8,019 |
| | Average payment for a normal delivery (before the policy) | 27,245 |
| | Average cost savings | 19,226 |
| | Financial gain as % of original payments | 71% |
| | Average Exp per delivery by gvt | 4,500 |
| | | |
| | Cost per caesarean section | 18,166 |
| | Average fee for caesarean section (before 2006) | 63,000 |
| | Reduction in HH per delivery | 44,834 |
| | % Reduction for Households | 71% |
| | Average fee for caesarean section from govt | 44,000 |
| | | MAD |
| | Cost to patient of caesarean | 183 |
| | Average payment for a caesarean (before 2008) | 2,228 |
| **Morocco** | Average cost savings | 2,045 |
| | Financial gain as % of original payments | 92% |
| | | |
| | Cost per normal delivery | 190 |
| | Average payment for a normal delivery (before 2008) | 504 |
| | Average cost savings | 314 |
| | Financial gain as % of original payments | 62% |

[1]The costs for Benin are taken from the exit interviews, financial flows data and (2012) One Exemption is not enough: An Evaluation of Benin's Free Caesarean Policy. MSc Thesis.

[2] The costs for Mali are taken from exit interviews, FFT data and the 'Synthese du systeme de financement au Mali' (MARIKANI 2012)

[3] For Burkina Faso, we use exit interviews, FFT data and baseline costs from (Storeng et al. 2008)

[4] The costs for Morocco are taken from exit interviews and HERA, Belgium: Réalisation d'une étude du profil épidémiologique et de la morbidité hospitalière de 9 hôpitaux publics. Rapport de synthèse. Only in-hospital costs are used, in order to compare with the baseline information.

# Conclusions

### *1. Did the policies increase access to obstetric care?*

Analysis of secondary survey data, looking at trends over a longer time span, did not demonstrate a significant increase in utilisation associated with the start of the exemption or subsidy policies in any of the three countries for which we have data (with the exception of Mali). All three countries have seen increasing access over time, and while the policies may have contributed to their continuation into the current period, they have not apparently accelerated that trend.

The policies are relatively recent and it is early to make a final judgement on this question, but in general, they are likely to have played a part in supporting continued improvements, along with other changes and investments. In the case of Morocco, for example, there were a number of parallel investments within the overall Action Plan and in addition, many households prior to the

policy benefited from a card providing exemption from all payments for low income households[16]. An estimated 70% of the population were covered by these cards. Although the cards were not fully respected or used (Hodgkin, Krasovec K., El-Idrissi, Eckert, & Karim 2005), in this context it would not be expected that the free delivery care at hospitals would lead to a dramatic shift in behaviour. Rather, it should be seen as part of a continuum of measures to increase facility deliveries over time.

### 2. *Which groups benefited most?*

Analysis of changing utilisation by socio-economic group shows a narrowing of inequalities for all three countries with survey data. Again, this is part of a longer term trend and relates in part to the prior high supervised delivery rates of higher quintiles. Gains, where they occurred, were likely to be amongst those with lower use at the start. It is not possible to quantify the role of the policies, though they are likely to have contributed to some extent.

The policies are universal in design and should benefit all women. However, non-financial barriers are more significant for women in rural areas, particularly in relation to transport. Moreover, the policies support those who use the services, which in all countries were skewed towards the better off households before the policies came into effect, and even more so for caesareans. This inevitably means that a disproportionate part of the benefits are captured by better off households. A simple breakdown of our exit interview sample by quintile, across the countries, demonstrates this (Table 23). Relatively few of the users were in the poorest quintile. For policies focussed on caesareans, the three better of quintiles hold the bulk of users. For those with broader policies, there is more evidence of benefits for the poor (e.g. quintile 2).

**Table 23 Distribution of women across quintiles, four countries**

| | Quintile 1 | Quintile 2 | Quintile 3 | Quintile 4 | Quintile 5 | Total |
|---|---|---|---|---|---|---|
| **Burkina Faso** | 119 | 270 | 299 | 526 | 395 | 1609 |
| | 7% | 17% | 19% | 33% | 25% | 100% |
| **Benin** | 17 | 32 | 162 | 279 | 173 | 663 |
| | 3% | 5% | 24% | 42% | 26% | 100% |
| **Morocco** | 76 | 306 | 365 | 163 | 63 | 973 |
| | 8% | 31% | 38% | 17% | 6% | 100% |
| **Mali** | 44 | 65 | 79 | 174 | 227 | 589 |
| | 7% | 11% | 13% | 30% | 39% | 100% |

Source: Exit interviews

Changing that means changing care-seeking behaviour at delivery, which as our research has shown is quite a difficult task, especially over the short term – it means raising awareness of the policies, especially amongst non-users and more remote women, ensuring physical access and also reassuring them in relation to their reception, the costs they will face and the support they will receive during deliveries. Evidence suggests that all of these require more effective actions in the study countries. In Burkina Faso, the payment of the residual 20% for indigents remains to be implemented.

### 3. *Were they effective in reducing financial burdens?*

[16] An estimated 70-80% of hospital users were presenting indigent certificates, according to Lardi and Gouaima 1995. There were however numerous problems and distortions with this exemption system.

The overall evidence suggests a significant reduction in household payments for the targeted services, ranging from 53% for caesareans in Benin to 92% for caesareans in Morocco. Some of the costs were expected to remain as the free care policies focus on in-facility costs. However, even in relation to the package of care which was supposed to be covered, households continued to pay sums which amounted to a small proportion of their overall expenditure in Morocco, intermediate in Burkina and Benin and the large majority in Mali. A significant proportion (0-35%, depending on site) was unable to pay. Moreover, women reported a lack of certainty about what they should pay or not which not only increases financial problems but also clouds the relationship with providers. This indicates that there is plenty of scope to increase the financial protection offered by the policies.

### *4. What is the overall evidence on effects on quality of care?*

Quality of care is complex to measure and baseline data was not available to measure trends over the period (and even with baseline data, attribution to the policy would not have been possible, as quality is affected by so many factors). However, cross-sectional analysis has allowed us to conclude that the quality is variable across sites and that there is no evidence that those hospitals which are implementing the policy effectively are providing worse care. In some cases, such as the Burkina Faso sites, it is the opposite pattern. We can therefore conclude that the policy has not systematically weakened quality. Qualitative evidence has uncovered a large number of positive and negative effects. The realist evaluation case studies suggest that whatever the policy designs, there is scope at the local level to adopt the policies in a positive way. The focus should be on reinforcing competences and institutional arrangements to enable such positive management of resources.

### *5. Did the policy strengthen or weaken the local health system?*

The POEM studies generally indicate that the policy did not reinforce any of the non-targeted services. Often, it led to improvement of resource availability for targeted services, changes in the health information system or competences of providers, but not beyond the sphere of maternal and child health, and specifically maternity and theatre. No changes were documented in general management or organisation of services. POEM and realist case studies of policy adoption have shown that there is no effective stewardship function in the majority of the sites, defined as coordination, management and regulation of all health actors and safeguarding the public interest. The targeted policies have not created opportunities to strengthen the stewardship function, or at least, these opportunities have not been taken. This may present a challenge beyond the scope of a single national policy.

### *6. What were the main strengths and weaknesses of the policy?*

A detailed analysis of strengths and weaknesses are presented in the country reports. However, as a group, certain features stand out. On the positive side, and compared with the documented experience of other countries with similar exemption policies:

- The policies have been relatively thoroughly implemented: despite some gaps and lapses, the policies have been put into effect in a serious way
- They have not been affected by budget shortfalls, which undermined the effectiveness of similar policies in countries like Ghana (Witter & Adjei 2007)
- They have, in some cases, like Morocco's, been accompanied by the additional supply-side improvements which are required to meet the additional demands
- There is an underlying support for them, and not only from beneficiaries: most actors within the health system (health district managers, hospital management teams, specialists, nurses and midwives) reacted positively to the policy in interviews. The policy was generally considered to be relevant and important
- They have achieved substantial reductions in household payments, which will over time contribute to poverty reduction and reduced inequalities of access

However, there are also some weaknesses. These include:

- A package of care which in some cases (Benin and Mali) will not address all of the main causes of maternal and neonatal morbidity and mortality, and whose impact on these can therefore only be expected to be modest, even if well implemented
- Poorly calibrated provider payments, for those using fixed payments, which either over-incentivise (in the case of Benin) or under-fund (in the case of Mali). Both of these result in perverse effects
- Lack of clear and well disseminated operating documents, which enable staff and clients to be clear about how the policy will work and what is covered by it
- Too limited attention to the quality of care offered by the facilities covered by the policy; for newborns in particular it has been found to be sub-standard
- Lack of involvement in most cases of managers, staff and communities in developing and monitoring the policy in order to increase ownership and control abuse
- No policy has completely reduced the officially exempted costs to zero; although magnitudes of unwarranted payments vary in scale, all countries need to more effectively regulate providers and stop illicit payments from patients
- By their very design, the policies are unable to address some of the main barriers faced by women, such as inability to physically access health care; additional actions are needed to ensure that benefits can be equitable

In addition to the weaknesses of the policies themselves, there are underlying systemic weaknesses which undermine policy effectiveness, such as lack of effective stewardship at the local level, drugs supply and distribution systems which are not reliable and poor provider-patient relationships in some areas.

### *7. Are these policies likely to be sustainable?*

From a financial perspective, the financial burden of the policies is manageable. They cost 2.5-3.5% of public health expenditure in 2011, and were funded from national resources. There is considerable political commitment to maintaining the gains they have generated. The main challenge for sustainability will be developing national plans to move toward universal health coverage which can integrate the patch-work of different exemption and financial protection policies which are now multiplying in all of the study countries. In the course of this, the lessons learned through the FEMHealth evaluation should be borne in mind in order to maximise benefits and minimise risks.

### *8. Are they cost-effective overall?*

The policies in Burkina Faso, Benin, Mali and Morocco were strong national initiatives which aimed to improve maternal health and to increase access to obstetric care. On one level, the evaluation produces inconclusive results: we observe positive trends in relation to supervised deliveries and caesarean sections and a narrowing of inequalities in all three countries for which recent data is available but cannot attribute these to the policies. There is no significant change in the trends which coincides with the introduction of the policies. It is likely that they have contributed to the ongoing trend, but this is only speculative.

The heavy emphasis of these policies on caesareans (in two out of four countries) has been problematic in a number of ways: caesareans can save lives, but even if utilisation increases it is not easy to know if the right (medically indicated) women have received care. Moreover, the use of caesareans is heavily skewed to the rich and to urban areas, meaning that the benefits of the funding will almost automatically be biased in favour of the rich. It is an intervention which in some contexts needs boosting, but in other contexts (or for some groups) needs controlling. It can be induced by suppliers and patients for the wrong reasons, and carries medical risks. While policies to

reduce the costs of caesareans (which are high cost, potentially catastrophic events from a households perspective) can provide real financial benefits to households, as these have done, from a public health perspective a wider policy covering a range of life-threatening obstetric complications and also the pathway to them (facility deliveries) is preferable. Morocco and Burkina Faso illustrate this approach.

On that basis, should we conclude that the policies were not cost-effective, or did not represent value for money for the national budget? This requires a more nuanced judgement. One of the underlying objectives was to reduce the burden on households of this essential service, and so change behaviour. The evidence of the FEMHealth research suggests that while financial barriers are significant and are connected to many other barriers (physical, cultural etc.), on their own their reduction does not change behaviour, unless it is connected with a positive shift in other aspects, such as perception of quality and responsiveness. Policies on financial access therefore need to be designed with improvements to these other facets in mind, as an integral part of their design. Behaviour change also has to be measured over a longer period, as habits in relation to significant services such as delivery change slowly.

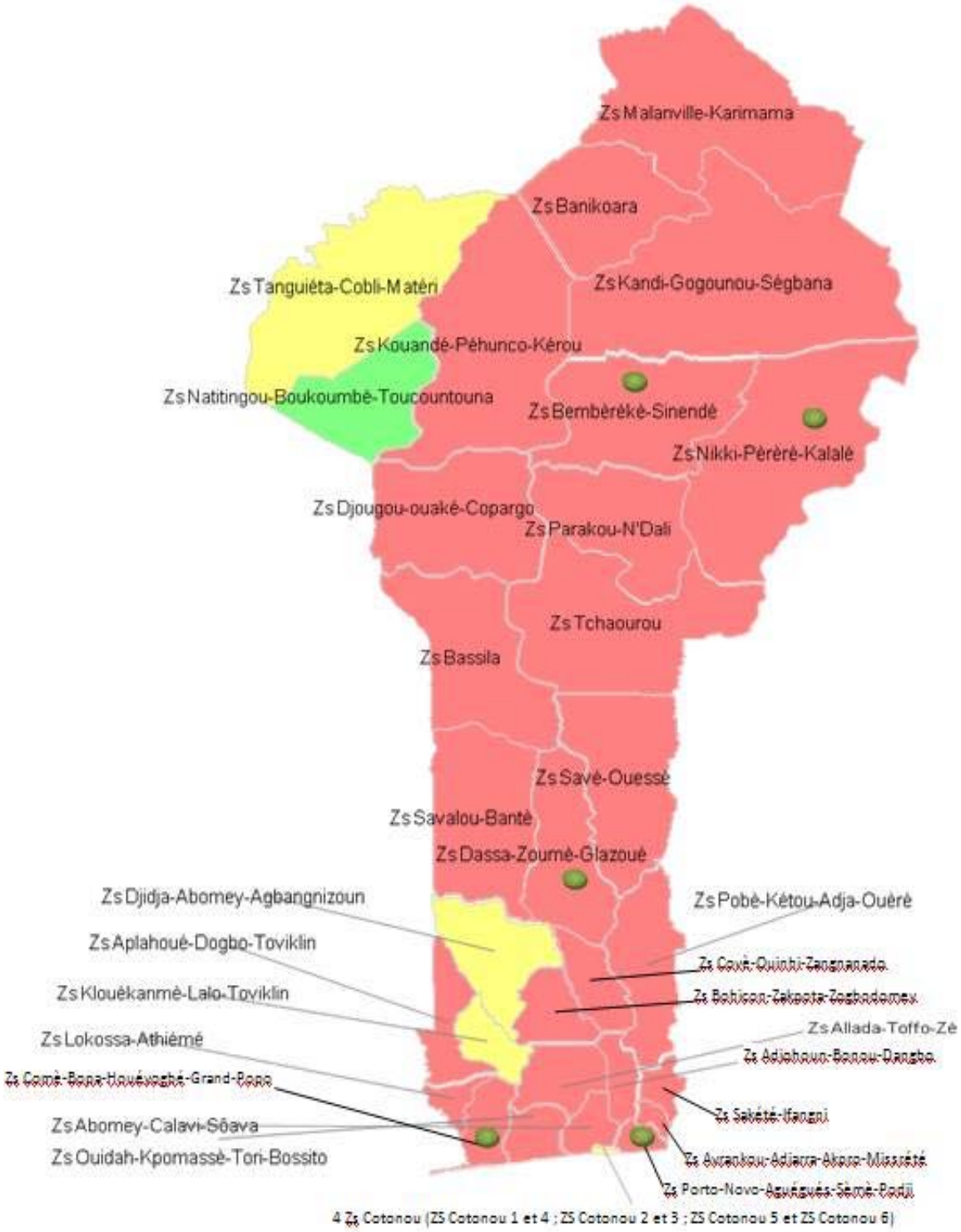
Looking at a simple comparison of the funds spent by government on the policies versus the estimated gains made by households gives another insight into the value for money question. In all three country for which we have unit cost data (this is missing in Morocco), the average expenditure per delivery was lower than the average gain per household with a delivery. There is therefore a net gain, which probably reflects the payment system and the fact that facilities are providing care without fully recovering their costs. If they are able to do this and still provide adequate care without passing additional costs to women, then the policy is leveraging an efficiency gain in the health system.

Wider impacts, positive and negative, intended and unintended, are also to be taken into account in coming to an overall judgement about these policies. We have found a range of these but they vary by context and suggest a variety of outcomes can be expected from these policies, depending on their features but also the context and the institutional and organisational frameworks into which they are introduced. This complexity means that no one simple answer to the overall evaluation can be produced for all settings.

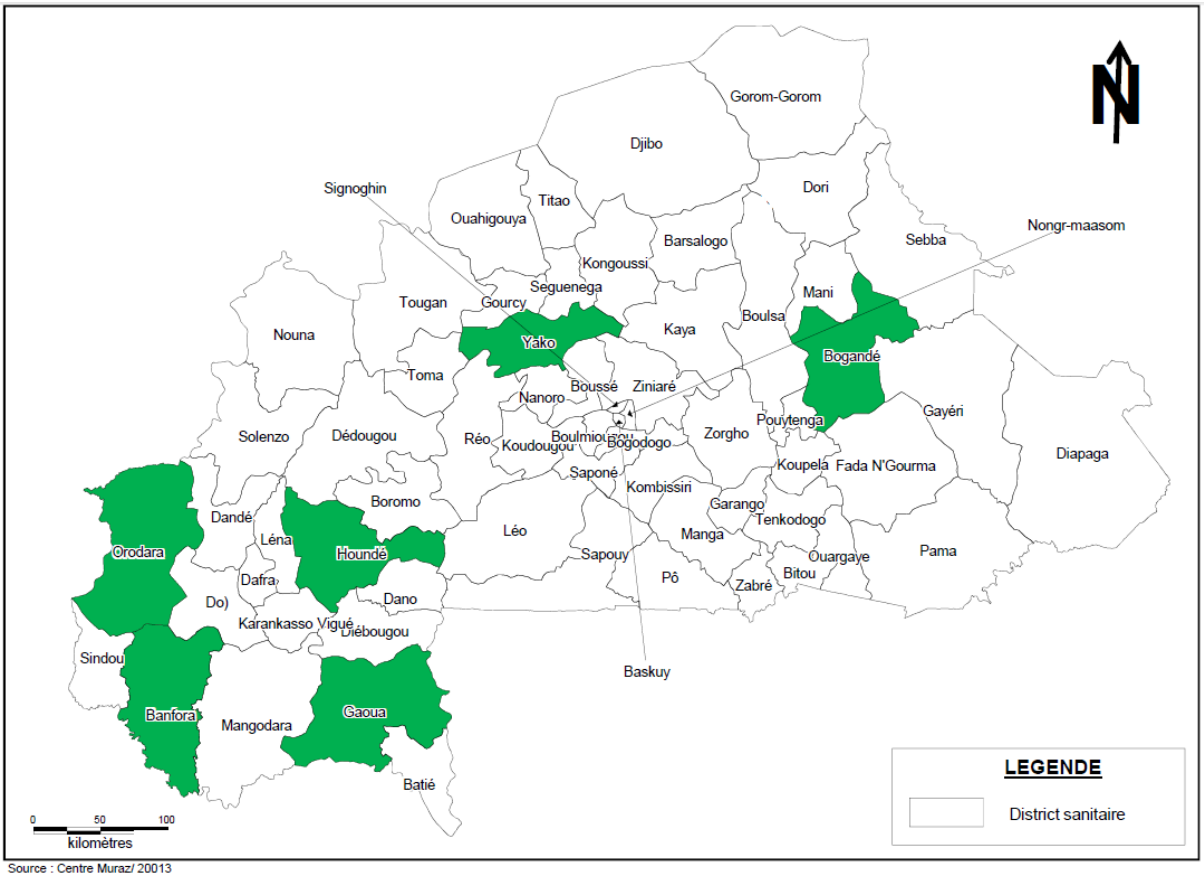
The overall recommendations arising from the evaluations are closely linked to tackling the weaknesses outlined above, not only in relation to the policies but also the underlying systemic challenges.

# Annexes

## Annex 1: Study sites in Benin

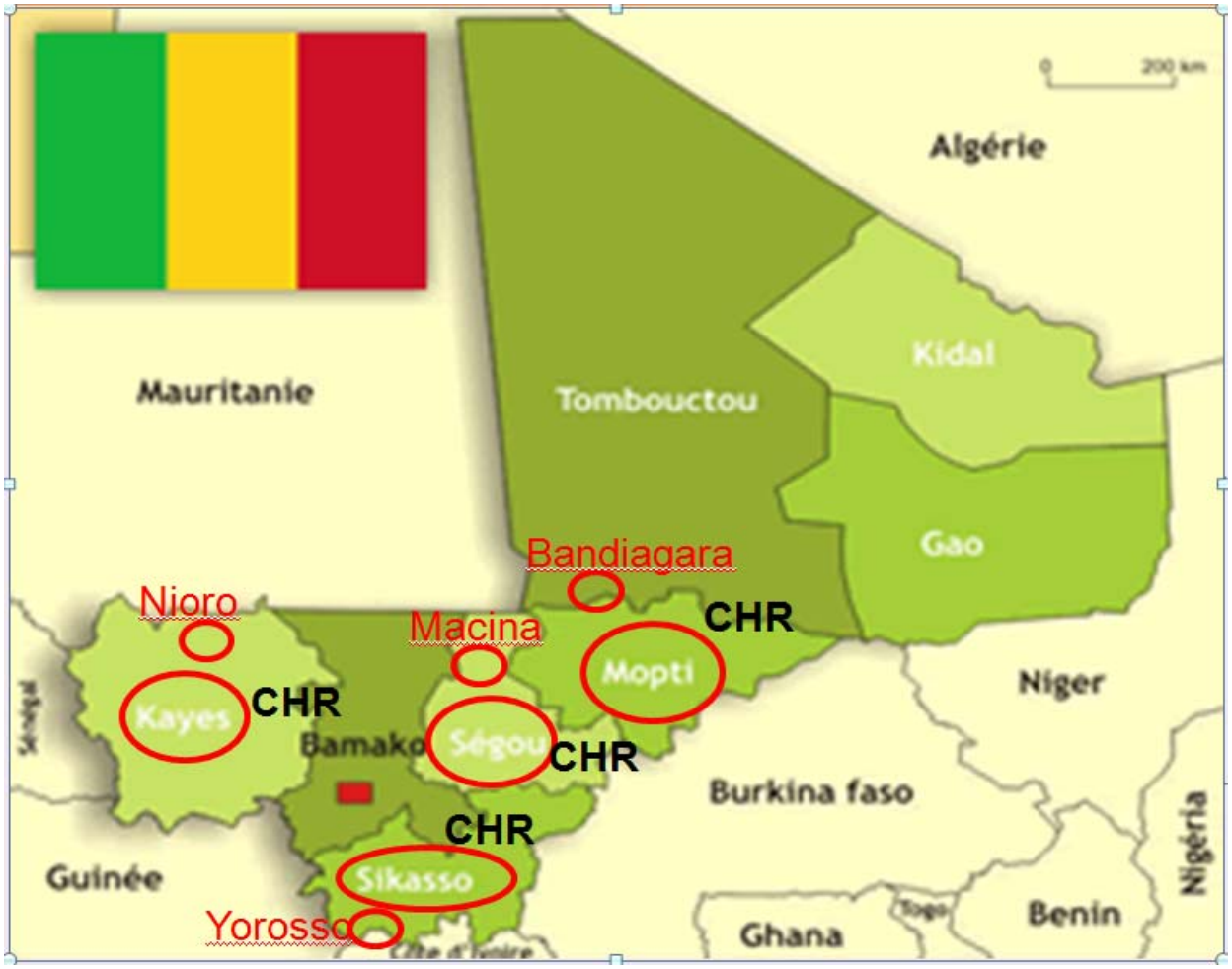


# Annex 2: Study sites in Burkina Faso

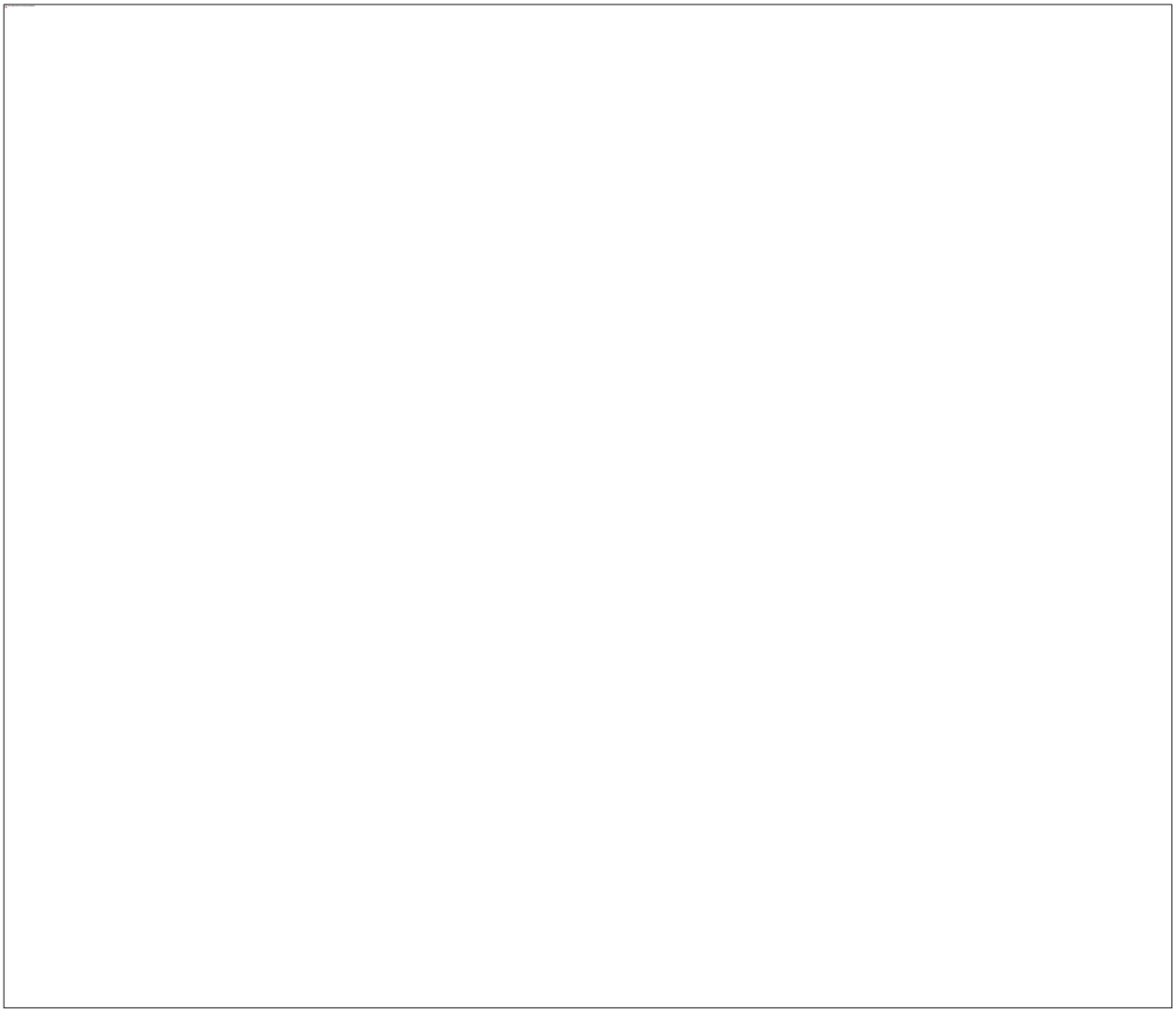



Source : Centre Muraz/ 20013

## Annex 3: Study sites in Mali



## Annex 4: Study sites in Morocco



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