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Introduction. The African Union and United Nations agencies requested that children under five years and pregnant women be exempt from healthcare payment at the point of service. Indeed, this payment method is a financial barrier to healthcare access that the most vulnerable populations cannot overcome. Since Burkina Faso had not yet implemented such a policy, an experiment was undertaken starting in 2008 in two districts of the Sahel region in order to produce evidence.

Methods. A research programme was organised in order to evaluate the effectiveness, equity, processes, costs and social effects of this experiment. Twelve studies were undertaken that used a concurrent mixed method design with data collected from individuals, households, health centres and villages.

Results. The experiment was integrated into the health system and was fully appreciated by all. The third-party payer system was effective. Pregnant women and children under the age of five years had faster and broader access to the health system. The poorest among them substantially benefited from the intervention. The quality of care was sustained and costs were controlled.

Conclusion. Since equity is a priority for the government and its financial partners, the research results suggest that exemption should be extended to the national level and that measures should be organised to break down the geographic barrier.

Keywords. Access to care, equity, direct payment, assessment, Burkina Faso.

1 Introduction

In the early 1990s, Burkina Faso launched a policy to stimulate primary healthcare. In fact, the health system was unable to meet the population’s needs and very few sick people visited the country’s health and social promotion centres (CSPSs), first-line establishments. This policy’s recipe to improve the health system’s responsiveness, which was widely concocted by the WHO and UNICEF, was made of the following ingredients: the use of essential generic drugs (EGDs) at low costs; administrative decentralisation (health districts) and local community governance (management committees, COGESs); direct payment for procedures and locally selected EGDs to generate additional funds in order to improve the quality and equity of care. At the same time, the government built numerous CSPSs and trained health personnel. In 2008, when the experiment assessed in this article began, the government allocated 8.4% of its budget to the Ministry of Health (Ministry of Health, 2010a) even if this amount had been expected to reach 13% in 2006 (Ministry of the Economy and Development, 2004).
This policy was not truly capable of meeting the population’s needs. Indeed, while the number of CSPSs increased from 751 in 1997 to 1,352 in 2008 (Ministry of Health, 2009), their attendance rates remained very low. In 2008, the number of new contacts per inhabitant and per year was 0.50 (it had been 0.40 in 1982) and the rate of deliveries assisted by qualified personnel was 64% (Ministry of Health, 2010a). In spite of the efforts that were made to improve geographic access to CSPSs, the situation in the 1980s continued until the late 2000s. Returning to the culinary metaphor, the sauce did not thicken and the Burkinabé people considered that their government was among those in Africa that least successfully improved basic health services (Abiola, Gonzales, Blendon, & Benson, 2011). This low use of services largely explained the low effectiveness of the CSPSs (Marchall & Flessa, 2011).

In Burkina Faso, one of the main obstacles to healthcare access remained the ability of households to pay for healthcare (De Allegri et al., 2010; Haddad, Nougatta, & Fournier, 2006). This is why the African Union (African Union, 2010) and top decision-makers on the continent, in agreement with the majority of international organisations (The Global Campaign for the Health Millennium Development Goals, 2009), affirmed that: “countries should consider making health services free for pregnant women, lactating mothers and children under the age of 5 years” (Sambo, Kirigia, & Ki-Zerbo, 2011). Numerous African countries did indeed attempt to implement such policies with promising results (Ridde & Morestin, 2011). It was in this context that an experiment in healthcare payment exemption was undertaken.

2 Intervention

Context: The Sahel health region, located in the northern part of the country, has the country’s poorest indicators for health and service utilisation (INSD, 2010b). Thus, in September 2008, the regional health authorities, in collaboration with a German NGO (HELP), decided to implement an experiment in healthcare payment exemption with financing from the European Union’s Humanitarian Aid Office (ECHO). The NGO focused its efforts on two of the region’s four districts, Dori (290,000 inhabitants, 18 CSPSs in 2009) and Sebba (180,000 inhabitants, 11 CSPSs in 2009).

Principle: The principle was to make healthcare free at the point of service for vulnerable groups (payment exemption for children under the age of five years, indigents and pregnant and lactating women), and in return, the COGESs were reimbursed the costs incurred for these services. The NGO acted as a third-party payer, in the same capacity as a government or a national health insurance fund.

Target public: Starting in September 2008, vulnerable groups were totally exempt from the payment of healthcare/
childbirth in CSPSs. For women, this exemption (20%) provided through the experiment supplemented that of a national subsidy (80%, with women paying 900 F for childbirth) that had been organised by the government since 2007.

Process: To accompany this exemption measure, a series of activities were implemented by the NGO in collaboration with the district teams and COGESs: information and awareness-raising campaigns, community mobilisation, training of COGES members (management, mobilisation, planning, etc.), training and medical supervision of health workers, reimbursement of procedures and financial control, etc. The reproduction of a participatory approach to the selection of indigents that had been implemented elsewhere in the country (Ridde et al., 2010) led to the establishment of village committees and the identification of the worst-off who then benefited from indigence cards entitling them to exemption from healthcare payment.

Expected effects: Over the short term, the experiment aimed to improve access to CSPS in the three target publics and empower the COGESs and target publics, improve the COGESs’ financial capacities and reduce health expenditures. Over the longer term (impacts), it intended to improve the health of individuals and reduce the risk of households falling into poverty.

Figure 1 shows the logic behind this intervention, and particularly its causal relationships for assessment purposes.

The purpose of this article is to give its readers, and namely decision-makers and stakeholders, an overview of this experiment’s results, without entering into detail.

3 Methods

3.1 Approach and design:

It should first be noted that this was a natural experiment and that the researchers involved did not have control over its implementation (Petticrew et al., 2005). The assessment was therefore undertaken by researchers independent from the intervention without conflicts of interest or motivation to produce favourable or unfavourable results. The evaluative research design was tailored to the experiment’s constraints (Bamberger & Rugh, 2009) and the researchers ensured that the results were useful and usable (Patton & LaBossière, 2012). The assessment made use of mixed methods with a concurrent triangulation design.

Considering the short observation window that was available and the experiment’s limited implementation period, it is too early to assess its impact on mortality and poverty indicators, but the experiment’s effects, processes and relevance have been assessed.

The studies that were undertaken have been summarised below.

3.2 Evaluation of effects:

1. The assessment of effects for the population was undertaken through a survey in a representative panel of households in the two intervention districts (n=2,210). Data were collected immediately prior to and one year after the start of the experiment.

2. The assessment of effects for health facilities used an interrupted time-series analysis. The data taken from the CSPS registers were used to compare the use of services before the start of the experiment (Jan. 2004-Aug. 2008) and during the experiment’s implementation (Sep. 2008-Dec. 2010) in the two intervention districts for the target groups and comparison populations and one comparison district (Djibo, located in the same health region but where all patients still paid).

3. The assessment for the community context and CSPSs was undertaken in all of the CSPSs in the two districts using a questionnaire with the aim of obtaining control variables for subsequent statistical analyses.

4. An accounting study using a method that we had tested elsewhere in the country (Kafando & Ridde, 2010) assessed the financial capacities of the COGESs (n=28) in the two districts by comparing data 12 months before and six months after the experiment.

5. The adequacy of prescriptions given to children under the age of five years (n=9,710) was compared to that of prescriptions given to children between the ages of five and ten years (n=3,349), who had to pay in reference to the WHO standards and the country’s standards. The study was undertaken in a sample of nine CSPSs in Dori by interrupted time-series analysis for 12 months before and after the experiment.

6. The effectiveness of worst-off selection was assessed using a quantitative method described elsewhere (Ridde et al., 2010).

7. The assessment of effects on childbirth costs (n=849), and particularly the estimation of excessive expenses for households (Mukherje, Haddad, & Narayana, 2011), was undertaken in a sample of women who gave birth in twelve CSPSs in the two districts compared to six CSPSs in Djibo. Parturient perceptions of care quality were analysed during this study using an instrument that had been tested in Senegal.

8. Effects on community participation and the empowerment of COGES members and women were analysed using a conceptual framework that had been used previously (Ridde & Queuille, 2006). Qualitative interviews with individuals (n=52) and groups (n=4) were held in a sample of four CSPSs in the two districts.

3.3 Assessment of processes and relevance:

9. A case study into the times taken to reimburse procedures performed without payment was undertaken in a sample of ten CSPSs. Quantitative data were collected in the main COGES accounting documents and qualitative interviews (n=10) supplemented the information.

10. A study on the costs of reimbursed procedures for children under the age of five years was undertaken for the period from January 2009 to March 2011 in all of the CSPSs in the two districts through an analysis of HELP’s accounting data.
11. The process assessment shed light on the intervention’s advancement, strengths and weaknesses, chances of continuing, merits and relevance. It was undertaken through: i) a documentary review (n=20 CSPSSs), ii) individual interviews (n=69), iii) collective interviews (n=27), iv) observations (n=15 CSPSSS), v) a questionnaire (n=56). A total of 436 people were interviewed (authorities, populations, health workers, etc.).

12. The relevance of worst-off selection was analysed during the same data collection for effects on community participation (see above).

4 Results

The primary study findings are summarised below.

4.1 Perceptions and knowledge of the experiment

The stakeholders that were interviewed recognised the merits of the strategy, considered that it improved fair access to care, affirmed that the choice of beneficiary population groups was relevant and appreciated the effect on reducing household expenditures. The selection of indigents did not pose problems in terms of social stigma.

While generally committed and motivated, some health workers were worried about excesses and abuses on the part of certain users and affirmed that they were attached to direct payment. Regarding the experiment’s sustainability, health workers and the COGESs did not think the experiment would continue after the NGO’s departure or be taken over by the government.

With the exception of lactating women for whom the experiment’s implementers had problems providing eligibility criteria at start-up, health workers and COGES members were perfectly aware of the target groups and reimbursement procedures. They all declared they were satisfied with the information they had received. However, the information provided to users was still insufficient six months after the start of the experiment. That said, during the quantitative survey undertaken in households one year after the start of the experiment, two-thirds (67%) of households said they were aware of the price of a children’s consultation, and 97% of these said it was free. Almost the same number of households (61%) affirmed they knew the cost of childbirth, and 88% of these said it was free. More poor households (Q1) than rich (Q5) knew that consultations and childbirth were free.

The strengths of the exemption system that were highlighted were: COGES involvement, reimbursement effectiveness and the project’s adaptation capacities. While the COGESs appreciated the subsidy supervision and monitoring activities undertaken by the NGO, some health workers complained about them.

The weaknesses mentioned by the stakeholders included: slow reimbursements, the impacts of the rise in service utilisation on management systems (strain related to cash flow, EGD stocks and reimbursement forms), inadequate consultations and health worker training at the beginning, and the workload required to manage the exemptions. Health workers complained of the lack of financial incentive. COGES members added that sometimes users paid for products and services that should have been free.

4.2 Estimations of costs and reimbursement times

On the basis of the reimbursements made monthly between June 2009 and March 2011, we estimated that the average cost of consultations (procedures + EGDs) for children under the age of five years in CSPSSs ranged from 900 F to 1,400 F in Sebba and from 1,000 F to 1,400 F in Dori. Seasonal variations in costs were the same in the two districts and the average for this period was comparable: 1,100 F in Sebba and 1,200 F in Dori (1.8 euros).

The average time taken by the NGO to reimburse procedures performed without payment in the CSPSSs decreased from 46 days during the first quarter of the experiment to 33 days during the second intervention quarter. Thus, the COGESs and health districts needed 16 days to send their reimbursement requests to the NGO which took 11 days to process them. Then, the amounts sent through local financial establishments arrived in the COGES accounts six days later on average.

4.3 Community financing and financial dividends for workers

The reforms in the 1990s allowed COGESs to sell patients drugs, in addition to medical procedures, with substantial profits. Thanks to the considerable rise in consultations (see below) and the effective reimbursement of exemptions (see above), it was likely that community essential generic drugs depots (DMEGs) would continue their hoarding process (Kafando & Ridde, 2010). We therefore estimated that the average cash level per DMG was 1.4 million in Sebba (2,135 euros) and 1.8 million in Dori (2,745 euros). Legally, health workers were entitled to a 20% bonus off the cost of fees. The average monthly bonus level per CSPS increased from 5,000 F in Dori and 7,900 F in Sebba before the experiment to respectively 8,800 F (+76%) and 10,800 F (+36%) during the first six months of the intervention.

4.4 Quality of care

In a context of perfect EGD availability where patients were no longer facing a financial barrier, some expressed fears regarding the possible impacts of this experiment on the quality of medical prescriptions. However, research showed that there was nothing to suggest that the adequacy of medical prescriptions in accordance with the Ministry of Health and WHO standards or the perceived quality of care had declined.

For example, for the children targeted by the experiment, health workers improved their prescription practices by reducing the use of antibiotics by 62% (p<0.005). Likewise, they reduced the use of injectables in cases of acute respiratory infection by 72% (p<0.005). However, prescribers did not change their practices for children between the ages of five to ten years who continued to pay for care. Furthermore,
both in the group of children targeted by the experiment and the group of children who continued to pay for care, the average number of drugs per prescription remained stable (n=2.2).

Parturients who delivered in the experiment’s districts rated the quality of care more favourably than those in Djibo where they continued to pay. The largest difference was in the cost of delivery (p<0.000). The other positive factors that stood out were: responses to questions (p=0.007), explanations of the labour process (p=0.007), trust and safety (p=0.007), attention to lactation (p<0.000) and the comfort of facilities (p<0.000).

4.5 Empowerment of women and management committee members

The women interviewed explained that payment exemption had empowered them and particularly given them more decision-making autonomy over their husbands. Some even affirmed that this situation in which they no longer had to ask their husbands for money to get to a CSPS had changed their position in the household.

Management committee members expressed a greater sense of value and social recognition in the villages: “before, when care was fee-based, people didn’t even know my name; now things have changed and they look at us differently”. Their participation was instrumental to the experiment’s success and awareness in the population. They also better understood their role in the COGES, further participated in meetings and acquired new management skills thanks to the training sessions organised during the experiment. Among other things, the training gave them better awareness of their social responsibilities to indigents.

4.6 Health expenditures for households

The experiment reduced illness-related expenditures for households. The distribution of expenditures totally changed. Before the experiment, most household health expenditures ranged from 1,000 to 5,000 F CFA (47% to 50% of households depending on the distance). One year later, the majority of households affirmed that they had not spent any money on care for their children (57% to 67%), whereas this rate had been only 6% to 9% before the experiment.

Among the women who gave birth in the Dori and Sebba districts, the median amount they paid for medical care at the maternity was 196 F whereas it was 1,075 F for women in Djibo. Another example of the financial protection offered by payment exemption was the proportion of women who, due to payment for childbirth at the point of service, faced expenditures that could be described as excessive out of the total number of women in the study1. Thus, irrespective of the constant k (0.5; 1; 1.5) used for the analysis (sensitivity test), the percentage of women with excessive expenditures (Figure 2) was half the size in districts where the experiment was implemented (100% exemption) versus the district that only applied the national policy (80% subsidy). The distribution of households in these two populations (100% vs. 80%) reflects this difference (Figure 3). Moreover, this significantly higher level of excessive expenditures in the district where the experiment was not in place was valid both for the poorest (Q1) and least poor (Q5) populations. Lastly, it should be noted that gaps in excessive expenditures between social groups were systematically larger in the district where the experiment was not in place. For example, the gap (Q5-Q1 for k=0.5) was 4.10 percentage points in Djibo whereas it was only 0.8 in Dori and Sebba. There were therefore fewer inequalities in the experiment’s districts.

4.7 Attendance at health centres

For assisted deliveries in CSPSs, modelling2 showed that that net effect attributable to the experiment twelve months after its start-up in the Dori district was 9.1 additional monthly deliveries per CSPS and 4.8 in the Sebba district. This gain

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1 For methodological precisions regarding this endogenous analysis (and not exogenous as when using the concept of catastrophic expenditures) of health expenditures, see a study in India (Mukherje et al., 2011) and an application in Burkina Faso (Ridde, Kouanda, Bado, & Haddad, 2012).

2 This allows us to take into account secular trends and variations in the size of target populations.
supplemented that which had been obtained previously with the governmental subsidy covering 80% of childbirth costs. The study in households confirmed this increase and showed that the percentage of women who delivered in CSPSSs doubled, whether they lived close to or far from maternity, and whether they were poor or less poor.

For children under the age of five years, modelling showed that the effects were both immediate and lasting, including for children living far from CSPSSs. The average net effect observed during the 12 months following the experiment on attendance at CSPSSs by children living more than 10 km away was over 48%, over 75% for those living five to nine kilometres away and over 66% for those located less than five kilometres away. The study in households confirmed these effects for households in which a child had had an illness episode in the 30 days before the study (n=832). For example, the percentage of children consulting a CSPS for first-line treatment increased from 25% to 72% for the poorest populations (Q1) and from 41% to 83% for children living more than 10 kilometres from a CSPS. Furthermore, the study confirmed that the experiment benefited the poorest populations. Indeed, in spite of the resource and transportation constraints that more heavily affected the poorest families living the furthest away, their children, just like those in less poor families, were able to benefit from payment exemption (Figure 4).

Today, in a context of healthcare payment exemption, 80% of children are cared for within three days after the onset of the first symptom of their illness episode, which bodes extremely well for child survival.

4.8 Selection of indigents

Before all of the COGESs in the two districts set up a system for the care of indigents in 2011, four CSPSSs in 2009 tried the experiment in 51 villages in 2010. Out of the 656 indigents selected by the village committees, 147 (22%) were then selected by the COGESs, 69% of whom were over the age of 50 years. It should first be noted that the result of this selection was very low coverage since only 0.21% of the poor people and 0.28% of the extremely poor people living in the health area covered by the four CSPSSs were selected as indigents. These people then obtained an exemption card signed by the Prefect and the Ministry of Social Affairs. A measurement of their income showed that 15% of indigents lived in extremely poor households, whereas this percentage was only 9% country-wide. Furthermore, the COGESs minimised inclusion biases as they only selected 0.12% non-poor people and 0.15% non-extremely-poor people.

5 A necessary experiment?

The results of this experiment show that the ability of households to pay significantly affects their use of health services when the latter are needed. Was it truly necessary to provide evidence of this? For anyone who is familiar with the scientific literature on healthcare payment in Africa, it may indeed appear surprising to want to prove such a reality, given that research over the past 20 years has shown that payment at the point of service is a major barrier to care (ALJPAL, 2011; Haddad & Fournier, 1995; Lagarde & Palmer, 2011). And yet it is necessary to consider the context of this experiment to better understand its relevance.

5.1 Needs that needed to finally be taken into consideration

The experiment occurred against a particularly troubling social and health context, especially since the use of health services in the Sahel region was extremely low (INSD, 2010a). The regional authorities, the NGO and its funder (ECHO) therefore wanted to take prompt action. Healthcare payment exemption at the point of service showed that they were right, considering how spectacular the effects were for the most vulnerable groups and how favourable they were for the poorest.

5.2 Dispelling myths

It should be remembered that the political and ideological context in Burkina Faso is unfavourable to exemption policies and exercising of the right to health. Decision-makers have a hard time implementing reforms for universal healthcare coverage through an equitable prepayment system. Political will has not yet been achieved, including for indigents (Ridde, Yaogo, et al., 2011), and misconceptions are common (Dagenais, et al., 2012). Just recently, leaders from the Ministry of Health affirmed that payment exemption at the point of service would “take responsibility away from” patients (Ministry of Health, 2010b) and health workers said it would have effects on “demographic growth” (Ouadaogo, Nébié, & Rouamba, 2010). These are the common myths regarding direct payment (FCRSS, 2011). Some civil servants from the United Nations agencies (WHO, UNICEF) and the European Commission in Burkina Faso are also hesitant to

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1 Taking into account secular trends, seasonal variations in attendance and the size of the target population for CSPSSs.
2 Taking into account the perceived severity of the health problem, differences between the two districts, and unmeasured particularities of CSPS health areas and households.
5.3 Sustainability and political will

Achieving sustainability, which is made of several dimensions and not only financial viability, is a process. Several data show that the experiment used a process that was favourable to sustainability: i) its social relevance, its participatory approach and the population’s strong support for free care for vulnerable people; ii) total integration of the experiment into the existing health system (adherence to its principles and operating procedures, strengthened community participation, equity and use of services while maintaining care quality); iii) the production of numerous rigorous assessments and the development of knowledge translation strategies (Dagenais, et al, 2012). All of these processes may have contributed to the fact that the new National Health Development Programme (2011-2020, PNDS) has undertaken to “broaden the range of services covered by subsidies and ensure their sustainability and the new National Social Protection Policy (2012) call for free health care for women, under five years and indigents.”.

Thus, the NGO acted as a substitute for the State only in its third-party payer function. The experiment remained simple in that supervision, training and control were to be powers held by the State. This is where political will comes into play, on the part of the State and its financial partners. It should be noted that the citizens of Burkina Faso consider that health is still not a governmental priority (Abiola et al., 2011), which the government acknowledges in its PDNS, affirming that it grants “insufficient funding to health with irrational management of allocated resources”. The low budget allocated to the health system is evidence: only 8.9% of the national budget went to health in 2010, i.e. less than 10 euros per inhabitant and per year (Ministry of Health, 2010a). Likewise, only 0.6% of the nation’s wealth was devoted to social programmes from 2005 to 2009, making Burkina Faso one of the countries that allocated the fewest resources to this priority (World Bank, 2010). Neighbouring Ghana displayed another will: in a period of just a few years, it achieved the means to establish a national insurance fund (particularly by raising new taxes) that now covers over half of the population. But at the same time, Ghana exempted 70% of insured parties, and mainly pregnant women, children and indigent people, from the obligation to pay a premium (Sarpong et al., 2010). If the government of Burkina Faso truly wants to follow through on the presidential declarations of 2010 to make childbirth free in CSPSs, the budget approved by the National Assembly in 2006 for the subsidisation policy is sufficient. Since the coverage of indigents is financed by the COGESs, the issue of financial viability has been resolved. What now remains is the issue of children under the age of five years, which fulfilment of the commitment made by the State in 2004 to allocate 13% of its budget to the health system should resolve (Ministry of the Economy and Development, 2004).

6 Conclusion

The Burkinabè people want health to become the government’s top priority (Abiola et al., 2011). Healthcare payment exemption at the point of service is not a panacea. But this experiment showed that, as implemented, it respected the foundations of the health system while ensuring more efficient and fairer access. The experiment can now be understood as a first step towards universal healthcare coverage, a goal set by WHO (2010) to which neighbouring Ghana is committed to achieving. Political decision-makers and their partners (namely WHO, the World Bank and UNICEF, wielding high local influence) should now take responsibility for extending such an experiment and ensuring its sustainability on the national level, particularly by obtaining the means required to finance it.

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References


OMS. (2010). Rapport sur la santé dans le monde. Financement d’une couverture universelle (p. 120). Genève: OMS.


