Belgian support to the health sector in Congo

In its health program in the Democratic Republic of Congo (DRC), the Belgian development agency BTC aims to contribute to the implementation of the National Health Development Plan through a combination of financial and technical support. This plan is expected to improve access to quality health care in pilot health districts. BTC’s approach is aimed at fostering a process of systematic learning from these pilot experiences to feed into national policies.

One of these pilot districts was Kisantu in Bas-Congo province. The aim of the project was to support the local hospital and make it work more efficiently. However, hospital staff was initially not willing to participate in the exercise. It took six months to understand why not. The health staff had been used for thirty years to work under ‘survival modus’, in a completely commercialized health care system. The main goal of the hospital was to generate income in order to be able to pay salaries.

BTC subsequently negotiated and introduced a flat rate scheme for all medical services, 70% of which was subsidized by the project, be it under certain conditions. This not only increased access to health care for the rural poor, it also allowed a salary top-up (supplements to the State salary paid with the General Hospital’s income) for health personnel.

This one decision unblocked the situation. The new, subsidized flat rate scheme improved health service efficiency, made health care more accessible to the people and sparked a more rational use of the health services.

Improving financial access to health care in the Kisantu District in Congo: acting upon complexity

Key points

- The reforms in Kisantu have led to more transparency in the payment system, better availability of drugs, higher predictability of the costs to the patient, and better financial access to health services. The results also indicate a more rational use of resources, with improved gate-keeping by the first health service level and more efficient use of the hospital.
- Health systems are complex; they consist of interconnected components interacting with the context in which the health system is located. Understanding this interconnectedness and complexity is at the core of a systems thinking approach that views the system as a whole, with properties beyond the component parts. In a systems thinking approach, acting upon one of the elements of the system can contribute to rebalance the entire system.
- Shifting from a fee-for-service payment to a subsidized flat rate payment as a policy option for poor countries creates the necessary conditions for other health sector reforms. Such a financing system guarantees better access to health care for the poor population and increases equity in the health financing system. However, the implementation of flat fees cannot be an isolated measure or a goal in itself. It must be part of a more comprehensive package of efforts, including rational human resources management (with correct wages) and professional diagnostic and therapeutic behaviour.
- Health workers will change their behaviour if they earn a correct salary for quality work. The people will change their behaviour and use public health services if these services are functional and if they are provided at a fair, affordable and predictable cost.
The health system in Congo

The DRC has the legacy of a well-organized and functioning district primary health care and referral system. However, the situation in the health sector, as in all other social sectors, has dramatically deteriorated in the past two decades. Although the Ministry of Health in Kinshasa has not been very effective in recent times in trying to turn the tide, it has managed to clarify the structural organization, functions and norms of the district health system.

The DRC is divided into 11 provinces. Each province is divided into administrative districts, which in turn are divided into health zones (‘zones de santé’ in French). A health zone corresponds to what is internationally referred to as a health district: a network of primary health care centres, headed by a district hospital to treat ailments that surpass the means and competences of the health centres. For the purposes of clarity, the term ‘district’ will be used in this paper to refer to the Congolese health zone. The health facilities can be owned by the State or by not-for-profit private actors. The latter generally have established a contractual agreement with the State, which clarifies the rights and duties of both partners, but they largely remain autonomous in terms of management. Since colonial times, religious missions have acted as major implementing agencies in the health sector, and the DRC now also has a thriving not-for-profit indigenous network of religious health care providers who are major partners in the management of the district health system. State and private (religious or other) not-for-profit first-level facilities, labelled Integrated Health Centres, are in principle under the authority of the local District Central Office, headed by the District Medical Officer. Conversely, Non-Integrated Health Centres (NIHCs) are not subject to any agreement with the State and are usually profit oriented. However, supervision by the district team is often limited to mere data collection and establishing drugs inventories. Moreover, when the Integrated Health Centre or General Hospital belongs to a private actor, supervision is considered intrusive and unnecessary and is usually absent.

In 2008, the DRC was ranked sixth on the list of failed states because of its inability to provide public services, erosion of legitimate authority, corruption, criminality, and involuntary movement of populations. In 2011, the United Nations Development Programme ranked the DRC last in human development among a list of 186 countries and territories. In the DRC, disengagement of the State from the regulation and financing of the health sector, in addition to governance problems, has resulted in a profound weakening of the country’s health system. Unregulated fee-for-service payment is widespread and is both a cause and a consequence of the commercialization phenomenon, which is gradually depriving both urban and rural populations of access to quality primary health care.

Unregulated and unpredictable services

In some areas of the country, the public health system has virtually collapsed and health care delivery is largely left to informal private providers. The public health budget (3% of the annual state budget in 2008) serves mainly to finance irregular and very low salary payments to government health workers. Unregulated fee-for-service payment by patients is widespread; it provides an extra salary to health workers and makes the cost of care entirely unpredictable for the patient. Direct payment is requested for every single intervention, be it the administration of an injection or the request for a laboratory examination. Drug prescription is quite irrational and access to quality care is poor, especially in district hospitals, which are associated with higher costs than health centres. The absence of regulation also concerns universities and schools that train health workers. These training institutions have been booming in the past decade and the number of health facilities is growing every year. As a matter of fact, in 2008, 470 Technical Medical Institutes and Medical Teaching Institutes were known, equivalent to an increase of 84% in relation to 1998. Yet, 108 Higher Technical Medical Institutes and 39 Faculties of Medicine (an increase of 103 and 130%, respectively, in relation to 1998) were also registered. Only in 2009, almost 26,000 nurses graduated, exceeding by far the health districts’ planned needs. In the same year, over 2,000 doctors graduated from the three ‘traditional’ universities of Kinshasa, Kisangani, and Lubumbashi. The quality of education that these institutions provide is poorly regulated. For example, in 2009, 56% of the Technical Medical Institutes were functioning without official approval decree. As a result of brain drain, aging staff and demotivation, there is an evident lack of competent professors, which puts more pressure on the quality of education. Many universities, institutes and training centres are producing as many medical workers as possible in order to make money. This creates a plethora of human resources – of doubtful quality – throughout the country. The situation is further aggravated by the retirement conditions. Indeed, given the poor pension allowances provided by the State, retirement signals the end of top-ups and informal remuneration, without which the health worker cannot survive.

The overall result is poor access to health care and huge unmet needs regarding care in large parts of the country. Reasonably decent health care is being offered in scattered ‘islands’ (i.e. in settings that feature some level of external support from governmental or non-governmental organizations).

The DRC is attempting to rebuild its health system. In 2006, the country elaborated its Health System Strengthening Strategy (SRSS), which aims to reorganize the health system to improve access to quality health care. However, a large gap remains between governmental policies and the reality on the ground.
The District of Kisantu

Kisantu district is located in the province of Bas-Congo in the extreme southwest of the DRC. It has 144,395 inhabitants, among which approximately 45% live in the town of Kisantu and its surroundings (Fig. 1). It has one general hospital located in the semi-urban zone, as well as 16 Integrated Health Centres. In 2007, a small local health insurance scheme was set up (MUSAKIS - Mutuelle de Santé de Kisantu), boasting approximately 1,000 members in 2008.

As in most other Congolese districts, the Kisantu General Hospital was not really playing its referral role. It was actually competing for patients with the first level of care in the local health system. ‘Complacency’ outpatient consultations at the hospital by the better-off were frequent. They represented an important income opportunity for the staff, as opposed to the inpatient departments. Therefore, hospital staff would prefer to turn away from inpatients in order to look after outpatients – whether they were referred or not – and compete with the health workers operating in gradually deserted integrated health centres.

In 2008, the 270-bed hospital with over 200 employees (52% medical staff, 48% administrative or maintenance staff) had a bed occupancy rate of only 53.3%. This illustrates the general glut of staff in Congolese health facilities. The hospital admission rate for the population living in the district was 22/1000; the utilization rate at first level facilities (Integrated Health Centres and General Hospitals combined) was 0.4 new cases/inhabitant/year; 85% of the expected births in the district were attended by qualified staff in an Integrated Health Centre or the General Hospital; among those births, the district maternal mortality ratio was 192/100,000. The patients referred to the General Hospital by the Integrated Health Centre network constituted only 7% of all outpatient department consultations at the hospital; one-fifth of consultations were eventually hospitalized. The reasons for these low utilization rates and for this high maternal mortality ratio are complex and multiple. The lack of geographical accessibility due to road conditions is a major component of the problem, as are the local health services' lack of psychological and cultural accessibility. However, in our view, the primary constraint on access to health care is financial in nature.

In 2008, only 42.8% of all patients admitted to the hospital were able to pay their bills. This situation clearly had an important impact on the hospital’s ability to pay its staff, as top-ups represented 75% of total staff remuneration. Thus, health workers facing insufficient resources were increasingly tempted to develop informal payment systems in a poorly regulated and controlled environment. Short hospital stays are expected in a hospital that competes with first level care facilities. However, the average length of stay at Kisantu General Hospital was quite long (9.4 days), probably because patients’ difficulties to raise money at every single step of their itinerary in the institution resulted in extended stays.

Health as a complex business

Commercialization of health care contributes to widen inequities between the rich and the poor, especially in settings with substandard regulatory frameworks of the health sector. Poorly regulated fee-for-service payment systems initiate a vicious circle in which access to quality health care gradually deteriorates. Although the abolition of user fees is high on the international health agenda, the sudden removal of them may have disrupting effects on the health system and may not be affordable or sustainable in resource-constrained countries, such as the DRC.

Between 2008 and 2011, the Belgian development agency (BTC) launched a set of reforms in Kisantu district, through an action-research process deemed appropriate for the implementation of change within open complex systems such as the Kisantu local health system. The entire process contributed to strengthen leadership of the Kisantu district management team. The reforms mainly included rationalization of resources and regulation of health services financing. Flat fees per episode of disease were introduced as an alternative to fee-for-service payments by patients. A financial subsidy from BTC allowed lowering the flat fees. The subsidy was made conditional upon a range of measures to rationalize the use of resources.
The results in terms of enhancing people’s access to quality health care were immediate and substantial. The Kisantu experience demonstrates that a systems approach is essential in addressing complex problems. It provides useful lessons for other districts in the country.

**BTC intervention set-up**

**System thinking**
From the start, the Kisantu intervention considered the health system as an open complex system with interlinked components interacting with the context in which the system is located. Understanding this interconnectedness and complexity is at the core of a systems thinking approach that views the system as a whole, with properties beyond the component parts. In this perspective, the application of an action to one component of the system can upset the balance of the whole system (Figure 2).

However, the analysis of such complex systems is a dynamic and continuous process, and all components cannot be identified or understood at once. Decision making, action implementation, and their sometimes unexpected and unintended consequences gradually led to a deeper understanding of the system, and new elements and dimensions were progressively integrated into the reform process in order to maintain the system.

![Figure 2: The health district as a complex system.](image-url)
In April 2009, the executive team took the following decisions:

- Subsidized retirement (with BTC funds) of approximately 25 hospital staff by the end of 2009.
- MUSAKIS health insurance membership for all hospital staff, with registration premiums paid by BTC funds for the first year.

The unified district executive team introduced the planning of regular meetings. The initial results of the reforms (positive or negative, expected or unexpected) surfaced little by little, and were promptly discussed at these meetings. The need to follow the reforms, and to adjust action whenever necessary, was at the core of most discussions. Initially, the executive team did not insist strongly on the need to rationalize diagnostic and therapeutic behaviour because of the anticipated resistance from hospital-based medical doctors. However, the team was aware that the flat fee structure was decided on an approximate basis, without the necessary detailed financial information. For this reason, a cost study was planned in 2010.

**Implementation process and results**

**Immediate effects**

In March 2009, information and sensitization activities about the reform were held through television, radio, advertisements, discussions with auditors and meetings with health staff. In April 2009, the new flat fee structure was applied at the hospital level. Its effect on the use of health services was immediate: the number of curative consultations in health centres and the number of (referred) inpatients in the hospital increased, whereas the number of outpatients in the hospital decreased.

**Prescription behaviour**

The introduction of decision-making trees at the health centres increased the rationality of prescription behaviour. In 2010, more than 90% of the patients at health centres were prescribed essential drugs; in 2008 it had been less than 50%. No change in prescription behaviour was observed at the hospital level in 2009. Although hospital finances gradually improved and despite the subsidies, there were still 10% of the patients that could not pay their health care bills.

**Ombudsman**

Fraud (e.g. health centre staff selling referral bills to patients) was observed in some health centres, especially those located close to the district hospital. To tackle this problem, the executive team decided to reinforce supervision. By September 2009, an ombudsman was appointed at the hospital to collect patients’ complaints. Some months passed before victims of fraud dared to complain. The executive team took the complaints seriously, led a number of investigations, and took disciplinary action when necessary. By early 2010, four staff members had been dismissed because of fraud and six other had spontaneously resigned.

**Resources**

Admittedly, the Kisantu reform has benefited from financial and other resources far beyond the level of what is routinely available in other Congolese districts. The support was deemed justified because of the possibility to systematically relay the lessons learned in this pilot setting to the provincial and national levels and to share the experience with other district executive teams. The total amount of financial support by BTC to Kisantu during the four-year period (April 2008 to April 2012) was 2.35 million euros. BTC has invested approximately 0.85 million euros in infrastructure and equipment, about 1.1 million euros in the provision of subsidies for hospitalized patients and for the retirement of staff, about 50,000 euros in training, and some 350,000 euros for external consultancies. Given its encouraging results, Kisantu General Hospital benefited, in 2013, of another million euros for building and equipping new surgical and intensive care units, new X-ray and laboratory departments. Retirement of personnel in the Integrated Health Centres and the General Hospital, based on the person’s age or the number of years of service and according to the national code of labour in the DRC, was updated every year by the district. It is important to highlight that the human resources rationalization process as well as the maintenance of infrastructure and equipment require continuous investment, without which the results cannot be sustainable.

**District Health Executive Team**

One of the first changes introduced in Kisantu was the creation of a ‘renewed’ District Health Executive Team, composed of staff from both hospital and district services. Instead of having separate management structures for the hospital and the district, a single structure was created. It took quite some time before this team became fully operational in exercising leadership over the local health system. Many discussions and meetings were necessary during the initial months for the newly built team to endorse the critical analysis of the existing situation. The first decisions were taken on a consensus basis after almost one year of negotiations. Resistance to change, difficulties for two previously independent entities to work together, and loss of unofficial income and privileges for many of the staff were among the most important reasons why the process took so long.

In April 2009, the executive team took the following decisions:

- Implementation of flat user fees at the hospital, replacing the former fee-for-service system. The flat fees covered the consultation (and/or the hospitalization), laboratory examinations, echography, and/or X-ray and medicines for the entire episode of disease. The fees were calculated on the basis of yearly local financial audits organized by the Diocese of Kisantu, but also in reference to the National Health Accounts of the DRC.

- Subsidy of the flat fees charged by the hospital for patients who lived within the district boundaries and had been referred to the General Hospital by an Integrated Health Centre (40-75% of the flat fees paid with BTC funds, with a maximum subsidy for women and children health care).
Despite the regular payment of staff salaries and the repeated information campaigns, it rapidly became clear that the previous informal (and illicit) revenues were higher than the new wages paid to staff along the lines of a transparent salary structure. This loss of income was a source of discontent among hospital health workers, especially among nurses. In September 2009, hospital staff went on strike and petitioned for higher monthly remuneration. In 2010, salaries were increased in accordance with government (theoretical) recommendations, which have rarely been applied elsewhere. BTC helped the hospital to pay its staff and covered the shortfall caused by insolvent patients. This increased expenditure for staff wages was eventually to be integrated into a revised flat fee schedule.

Several attempts were made to obtain support at the provincial and central levels and to integrate the lessons of the reforms into national health policies. However, the response has been poor. Although some elements of the Kisantu experience, such as the implementation of flat fees and the use of decision-making trees and hospital protocols, were incorporated into the new version of the National Health Strategy, the first field visits from the Ministry of Health in Kinshasa only took place in 2011, despite repeated invitations. However, on a positive note, we must mention that several executive teams from neighbouring districts or from other BTC health projects visited Kisantu to learn from it.

In 2010 and 2011, the executive team organized a new round of retirement of health workers, financed by the project. Staff was redeployed among health centres and the hospital; new personnel was recruited where needed. Overall, the human resources in Kisantu district were downsized from over 200 staff in 2008 to 140 in 2011, with the proportion of paramedical and medical staff growing from 52% in 2008 to 60% in 2011.

In 2010, despite many meetings with the resident medical doctors, their prescription of drugs and ordering of laboratory examinations remained highly problematic. Approximately 30% of the prescribed drugs were specialties, most of which had to be purchased outside the hospital, and there was ample evidence of prescriptions containing four or even five antibiotics, not corresponding to any evidence-based protocol. To deal with this problem in a non-threatening way, an external consultant was asked to discuss the rationale of the current prescription behaviour and to develop, together with the medical staff of the hospital, a set of evidence-based guidelines that were adapted to the local context, including the (limited) existing national protocols. The process took approximately six months, but was met with high interest and participation from the hospital doctors. The effect of the newly introduced guidelines was impressive: in 2011, the resident medical doctors prescribed essential drugs in 90% of the cases and all antibiotic therapy was consistent with the guidelines. These guidelines were also shared with the provincial and central health authorities to be used in other districts and provinces. That was a source of great pride for the Kisantu hospital staff.

Unexpected and unseen indicators
In 2011 several private for-profit health centres had to close their doors because of a lack of patients. That would have been unthinkable in 2008, as the private for-profit sector seemed to be unwavering. It is an indicator of the enhanced accessibility and acceptability of the public and private not-for-profit health care system. That same year, several smaller health posts with a limited curative care workload were closed because they did not respect the reform guidelines. The latter decision was an indicator of the enhanced decision-making power of the district executive team.

The General Hospital bed occupancy rate increased from 52% in 2008 to more than 85% in 2011, and the proportion of referred inpatients increased from 6.1% in 2008 to 93.9% in 2011. To ensure that those changes are indeed related to patients from the Kisantu district and are not caused by an increase of patients coming from cities such as Kinshasa or Matadi (where health care is much more expensive and business-oriented), the hospitalization rate based on the origin of patients (inpatients living in the Kisantu district/Kisantu district population x 1,000) was also monitored. The data demonstrate a 54% increase between 2008 and 2011. This trend is confirmed by the increase of the percentage of patients from the district: from 74% in 2008 to 86.8% in 2011. The first-level curative care utilization rate in terms of new cases per inhabitant per year also increased, while the total number of new cases at the hospital outpatient department decreased.

Behaviour change
The above findings show that patients who previously used the General Hospital services, directly changed their behaviour. They now first visited an Integrated Health Centre, where
some of them could be treated without any need for referral. An indicator to monitor the relevance of referral from the Integrated Health Centres to the General Hospital was the percentage of referred outpatients that became admitted patients. That percentage increased from 21.7% in 2008 to 53.3% in 2011. This result can be explained by the fact that the reforms have led to more transparency in the payment system, better availability of drugs, higher predictability of the costs to the patient, and better financial access to health services at the hospital level through the conditional subsidy. To illustrate this: in 2011, more than 87% of all patient bills were collected. In 2008 it was 42%. The results also indicate a more rational use of resources, with improved gate-keeping by the first line and more efficient use of the hospital.

The subsidies to the hospital, conditioned by referral criteria, pushed patients to consult the primary care facilities first. This generated an increased use of these facilities and significantly higher salary top-ups at that level as well.

The autonomous staff incentives, which represent a top-up of the official salaries (official salaries are approximately 20 USD per month for a nurse), include the available amount of money in their cashbox after all necessary expenses (e.g. drugs for the pharmacy, maintenance) have been made. For all Integrated Health Centres combined, these incentives increased from 86,601 USD in 2008 to 127,843 USD in 2011, which represents an average top-up increase of 47.6%. Although part of this official increase – replacing previous unofficial income – is very difficult to assess, most of the in-charge nurses at the Integrated Health Centres recognize that their total income had indeed increased. The biggest increase was observed at the Integrated Health Centre that was closest to the hospital.

Conclusion

The experience demonstrates that it is possible to improve health district regulation by conditioning the financial support to a more rational use of available resources. It also shows that the population will use public health services if they are functional and if the cost is fair, affordable and predictable. Pushing health services away from a purely commercial logic is a precondition for any reform and rationalization effort to be successful. A subsidized flat-fee will withhold health workers from prescribing too much drugs and medical acts. This phenomenon is beginning to enter reform policies in Europe as well. Alternative fee-paying mechanisms do change health care workers’ approaches.

We should note too that health workers’ behaviour did not always change in a rational way. Drug prescription behaviour of medical doctors only changed when clinical guidelines and standards for prescription were provided. This shows that other factors, such as competence and overcoming routine, do play a role as well. Therefore, it is important to realise that the entire system needs to be managed and that flat-fees are not a magic bullet for reform. They are one of the strategic early measures to take in order to break the commercial logic of the system.

The Kisantu experience shows that it is possible to shift from fee-for-service to flat rate payments as a policy option for countries facing similar financial problems in their attempts to develop more equity in their financing system. Acting upon one of the elements of the system can, using a systems thinking approach, contribute to rebalance the entire system. The implementation of flat fees cannot be an isolated measure or a goal in itself. It must be part of a comprehensive package of activities aimed at rationalizing human resources and changing diagnostic and therapeutic behaviour.
Sources

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