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Proliferation of hospital facilities in the Ibanda Health Zone in the Democratic Republic of Congo: Determinants and perceptions of health stakeholders

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ABSTRACT: Background: The emergence of several healthcare structures that comply with the health policy has been observed in many health zones in DR Congo, particularly urban ones. The aim of this study is to describe the proliferation of hospital structures in the Ibanda health zone (HZ) and to analyze the determinants of their creation, as well as stakeholders' perceptions of the care offered by these structures. Methodology: A convergent mixed-methods study was conducted in the Ibanda Health Zone from June 2021 to February 2022. Data were collected through documentary review and interviews. A descriptive analysis of the characteristics of health facilities was carried out; but also an inductive thematic analysis was performed after the qualitative data had been transcribed and then coded through a tree of sub-themes grouped into themes. Results: The study revealed that the Ibanda HZ, has a total of 40 hospital facilities. Not only are these inequitably distributed within the health areas, but 45% of them are outside the administrative and technical control of the provincial authority. Many specialized services are absent from most facilities. The study suggests that the quality of care in the Ibanda HZ has improved over time, but that this quality is not the same in all facilities. Study participants report that the cost of care is high in relation compared to the financial capacity of households. For them, this explains this population's recourse to alternative solutions such as self-medication or traditional medicine. Conclusion: The study recommends tighter control of the conditions under wich care structures are set up and run, and improved quality of service for the benefit of the community.

KEYWORDS: Hospital structure, determinants, perceptions, Ibanda health zone, Democratic Republic of Congo.

1 INTRODUCTION

The health system of the Democratic Republic of Congo (DRC), as established, is structured on 3 levels: central, intermediate and peripheral levels. The central or national level, represented by the Ministry of Public Health, plays a normative and regulatory role. The intermediate or provincial level, made up of the Provincial Minister of Health, a Provincial Health Division, a Provincial Health Inspectorate, the provincial hospital and other health structures, provides technical support to the health zones. The peripheral or operational level, steered by the Health Zone Management Team, is the level at which primary health care activities are planned and implemented. It has two levels: the Health Center and the General Reference Hospital [1].

The hospital structure is part of a healthcare system and, as such, constitutes a care system. It includes people and all the activities and interventions whose main aim is to prevent, diagnose and treat health problems [2, 3].

In the DRC, the role of the General Reference Hospital is to provide reference health care in the form of a Complementarity Activity Package (CAP), to teach and retrain health professionals, to carry out operational research and quality control, and to supervise of first-level health structures (Health Center, Reference Health Center, Health Post) [1, 4].

In 2006, the Democratic Republic of Congo drew up its Strategy for Strengthening the Health System (SRSS), with Primary Health Care (PHC) as the foundation of health Policy and the Health Zone (HZ) as the operational unit of the health service. This strategy was based to the experiences of the 1970s, which focused on rural areas. Experiences drawn from rural areas

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were applied to the city, without adapting to the urban context, which has its own specific features medical pluralism with the emergence of the private sector, large-scale urbanization, epidemiology increasingly marked by chronic diseases, weak regulatory power of the State [5-7]. For example, the "health committees" set up as community participation bodies in an urban city, copied from the rural experiences of Kisantu and Kasongo, fail ton take into account the fact that in the city, residents have little identification with local health facilities, resulting in a low level of community participation [8].

The Ibanda health zone is one of three urban zones in the city of Bukavu, serving a population around 496,020 in 2021, according to figures from the South Kivu health zone pyramid [9]. It has a general referral hospital (GRH) and other public, religious and private for-profit health facilities.

Geographical accessibility to both the 1st and the 2nd echelons is relatively good, but environmental factors (poor road conditions, mountainous terrain) are the major obstacles in both the health zone and the city as a whole [10-12]

The Ibanda HZ is characterized by high population density, due in particular to the rural exodus of people fleeing insecurity in the villages surrounding the town of Bukavu [13]. In addition to this high population density, there is uncontrolled proliferation of hospital structures, often with little regulation.

This aim of this study is therefore to identify the determinants of the proliferation of hospital structures in the Ibanda HZ and the stakeholders' perceptions of the care offered by these structures.

2 METHODOLOGY

2.1 DESCRIPTION OF THE STUDY AREA

The study took place in the Ibanda health zone (HZ), one of three urban health zones of the city of Bukavu, in South Kivu province, eastern DRC. It had a population of 496020 in 2021, with a density of (27,557 inhabitants/km^2) [12].

2.2 TYPE AND PERIOD OF STUDY

This is a convergent mixed study [14], carried out from June 2021 to February 2022, during which qualitative and quantitative data were collected concomitantly. The quantitative approach was used to collect data relating to the description of emerging hospital structures in the Bagira HZ, while the qualitative approach was applied to apprehend the determinants of the proliferation of these structures as well as the stakeholders' perceptions on the healthcare offered by the latter.

2.3 DEFINITION OF A HOSPITAL STRUCTURE

In this study, we selected any health facility where at least one doctor works, and offers all or part of the complementary package of activities (CPA). Among the public and private infrastructures likely to offer a CPA, the structures selected are described as follows [15]:

Health Center: a 1st level health care facility, responsible for health care delivery activities in a given health area. The health center serves a population of 10,000 within a maximum radius of 8 km. It must cover a sufficiently large population to enable the minimum profitability necessary to pursue the basic activities planned, the development of the infrastructure and the periodicity required for supervision.

The hospital center: is a private medical and health establishment providing curative and preventive care, with at least four main medical departments (Internal Medicine, Surgery, Gyneco-Obstetrics and Pediatrics) and may also offer the services other specialties. It has a capacity of over fifty beds.

Polyclinic: is a private medical and health establishment providing curative and preventive care, with two or more specialties run by corresponding specialists, and a maximum capacity of fifty beds.

The General Reference Hospital (GRH): is a medical and health establishment whose essential functions are the provision of health care and the management of referred cases according to the principles of primary health care. It includes at least one department of internal medicine, Gyneco-obstetrics, pediatrics and surgery, as well as a laboratory, a pharmacy and a medical imaging department, all staffed by specialists. It has a capacity of at least one hundred beds and serves a population of over one hundred thousand in rural areas and over one hundred and fifty thousand in urban areas.

The Provincial Hospital: is a complete public medical and health establishment of the second level of reference, located at the provincial level and providing patients with most medical specialties.

2.4 SAMPLING AND DATA COLLECTION

Quantitative data was collected in two stages. The first stage involved a census of all facilities meeting the definition of a hospital facility in the Ibanda HZ, based on a documentary review of the health pyramid for South Kivu HZ in 2021 and the Ibanda HZ annual report for 2020. The second stage involved observation of hospital structures through a series of field visits. By snowballing, other respondent structures not listed in the HZ report were identified. The GPS coordinates (longitude and latitude) of the facilities were collected using the "My GPS Coordinates" cell phone application. Other data collected at these facilities included: the number of hospital facilities by type (integrated or no-integrated), their date of creation, the number of services organized in them, the average number of beds set up in the facility, the distance (in kilometers) between the hospital facilities and the provincial hospital, and the number of doctors working in these facilities.

For qualitative data collection, semi-structured individual interviews were conducted using an interview grid. The latter included questions relating to the factors that may explain the proliferation of hospital structures in the HZ and key informants' perceptions of the care offered in these structures (quality, cost, caregiver-patient relationship). The key players interviewed were selected on the basis of their knowledge of the health system in the HZ, at various levels (HZ office, GRH, hospital structures and community). A total of 16 people were interviewed, including 2 members of the health zone management team, 5 attending physicians, 2 hospital owners, 4 community representatives and 3 patients. The interviews were recorded with a SONY dictaphone and stored on a computer before being transcribed verbatim. The average length of interviews was 28 minutes.

2.5 DATA ANALYSIS

Three types of data were collected and analyzed: geographic, quantitative and qualitative data.

Geographical data were encoded in DMS format in an Excel 2016 spreadsheet and imported into QGIS 3.4 software for descriptive cartographic analysis to locate each health facility on the map of the Ibanda health zone.

Using Stata 14.0, quantitative variables were summarized as medians with extreme values (minimum, maximum), while categorical variables were summarized by frequency and proportion.Quantitative data were analyzed using an Excel file to identify the number and characteristics of hospital facilities available in the Ibanda HZ.

Finally, the qualitative data were analyzed by theme (15), with a view to identifying the determinants of the proliferation of hospital structures, as well as stakeholders' perceptions of the care offered. The audio files from the interviews were transcribed into a Word document. After familiarization with the transcripts, a thematic tree was created from an inductive process. To ensure confidentiality when quoting key informants, a code consisting of two letters (KI = key informant) and a number (marking the occurrence of the interview) was introduced, ranging from KI1 to KI16.

2.6 ETHICAL CONSIDERATIONS

A written informed consent form guaranteeing anonymity and free participation was completed beforehand by the manager of each identified structure and by each of the 16 key informants interviewed.

2.7 METHODOLOGICAL LIMITATION OF THE STUDY

The main limitation of this study is potential information bias [16]. Indeed, some respondents, especially the owners of the facilities, could give idealistic answers to conceal the true motivations behind the creation of their health facilities. This bias was minimized by extending the interviews to other stakeholders such as members of the HZ management team, representatives of the population and patients. As a result, only concordant information between interviewees was retained.

3 RESULTS

3.1 MAPPING AND CHARACTERISTICS OF HOSPITAL FACILITIES IN THE IBANDA HEALTH ZONE

A total of 40 health facilities meeting the definition of hospital were identified (Figure 1).

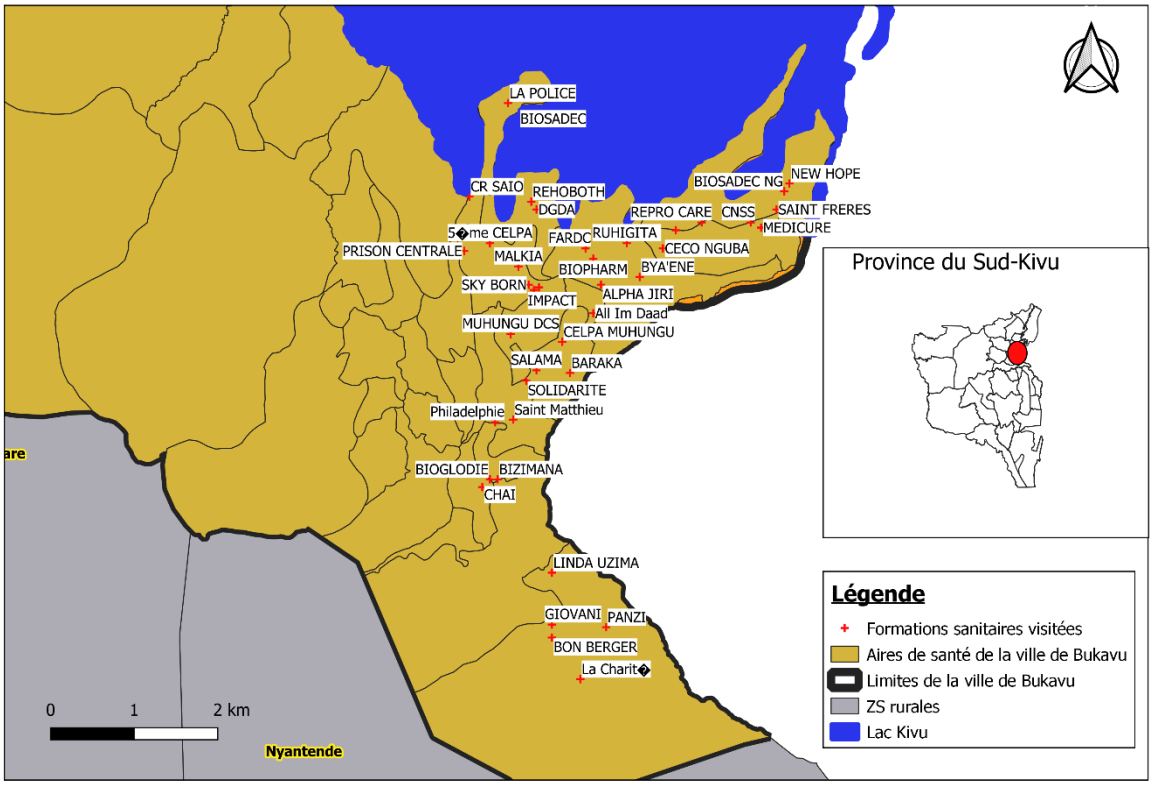

Fig. 1. Mapping of hospital health structures in the Ibanda HZ

The majority of hospital facilities in the Ibanda HZ are private for-profit (55% of facilities). They are followed by denominational hospitals (27.5%), while state hospitals represent only 17.5%. The study notes that 45% of hospital facilities in the Ibanda HZ are not integrated into the health pyramid, the majority of which are private for-profit facilities (63.6%), while denominational (81.4%) and state-run (71.4%) facilities are integrated (table 1).

Table 1. Characteristics of hospital structures in the Ibanda HZ by categories

Variables	Numbers (Proportion)			Total
	State	Profitable for-profit	Confessional	
Type of facility	7 (17.5)	22 (55)	11 (27.5)	40 (100)
Integrated	5 (71.4)	8 (36.4)	9 (81.8)	22 (55)
No-Integrated	2 (28.6)	14 (63.6)	2 (18.2)	18 (45)

Other features

Half (50%) of the hospital structures in the Ibanda HZ were created after 2009, and 25% of new structures were created between 2015 and 2021. The four traditional services (Internal Medicine, Surgery, Pediatrics and Gyneco-Obstetrics) are present in 80% of hospital structures in the Ibanda HZ.

Specialized services such as ophthalmology (22.5%), ENT (20%), dentistry (47.5%), Physiotherapy (25%) and radiography (25%) are not very common in Ibanda health zone hopsitals. On the other hand, all these facilities have laboratory and pharmacy services, and 92.5% are equipped with an ultrasound scanner.

The median number of beds in Ibanda HZ hospitals is 30 (minimum: 2; maximum: 450), giving an average of 1 bed per 275 inhabitants.

The median number of doctors in Ibanda HZ hospitals is 4 (minimum: 1; maximum: 55), and in relation to the total population of the Health Zone there is 1 doctor for every 1791 inhabitants.

The average distance between hospital facilities in the Ibanda HZ and the Bukavu Provincial General Reference Hospital is 4 kilometers (minimum: 0.8; maximum: 7.2).

3.2 DETERMINANTS OF HOSPITAL PROLIFERATION IN THE IBANDA HZ

Figure 2 summarizes the main determinants of the proliferation of hospital structures in the Ibanda HZ, according to the respondents

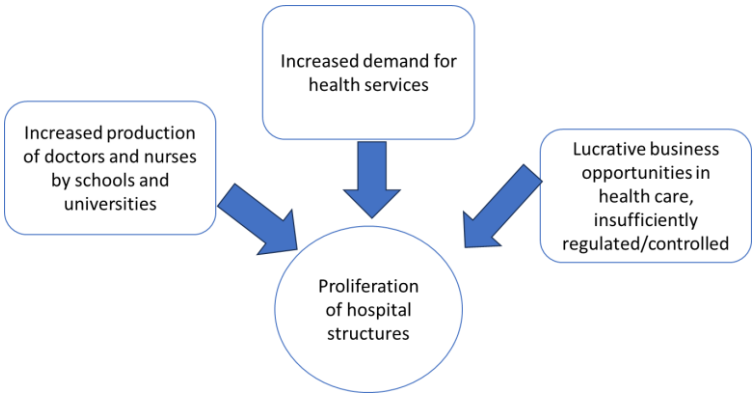

Fig. 2. Determinants of hospital proliferation in the Ibanda Health Zone

INCREASED PRODUCTION OF DOCTORS AND NURSES

While medical education institutions produce graduates in the health field every year: Doctors, Nurses, Bio-clinicians, etc. (KI3, KI4, KI5, KI8, KI9, KI10, KI16), the government is not absorbing all this manpower into state health training schemes (KI1, KI3, KI4, KI6, KI9, KI11, KI13, KI14, KI16). As a result, some of these providers are each setting up their own health structure to compensate for prolonged unemployment. Indeed, "*By creating your structure, you will have hired yourself* (KI3) *"*.

INCREASED DEMAND FOR HEALTHCARE SERVICES

The insecurity caused by recurrent wars, which affect rural areas of the South Kivu province in particular, is leading to a growing rural exodus, which is exacerbating population growth in the town (KI1, KI2, KI5, KI11). As a result, there is a strong demand for healthcare services (KI1, KI2, KI4, KI5, KI6, KI15), creating a business opportunity for the provision of care that is clearly financially profitable (KI2, KI4, KI5, KI6, KI9, KI10, KI11, KI13, KI14, KI16). "*So we now take medical structures as commercial activities, like someone opening a store, a restaurant,...* (KI5) *"*.

A LUCRATIVE AND INSUFFICIENTLY CONTROLLED BUSINESS OPPORTUNITY

Increasingly, healthcare facilities are seen as income-generating activities, which are captivating more and more of Bukavu's entrepreneurs. "*What I've noticed is that in Bukavu there's a lot of money and people don't want to invest in projects that last before they produce, they want to invest in projects that produce right away. And these service projects: schools and hospitals are interesting in this sense* (KI15) ". Unfortunately, this appetite has overflowed to the point of creating a situation that risks becoming unmanageable if drastic measures are not urgently taken. "*As a result, there are more and more structures in many places. Residential homes are even being converted into medical centers* (KI15)." Religious denominations are also following suit, in the pursuit of profit. They set up health facilities to generate income for their communities, and create jobs for their followers to keep them loyal (KI12). And given that they often have land concessions for construction and easy access to financing, the major religious denominations are setting up health facilities in the Ibanda HZ (KI12).

As the rules governing the establishment of new health facilities are not strictly enforced in the HZ, any individual or institution wishing to set up a facility takes advantage of this lack of control and creates its own care structure. "*At a meeting of the Ibanda health zone, the HZ Manager declared that he did not know the exact number of health facilities in his health zone* (KI7)."

STAKEHOLDERS' PERCEPTIONS OF HEALTH CARE IN HOSPITALS

QUALITY OF CARE AND PROVIDERS

The quality of care in the Ibanda health zone and in the city of Bukavu has improved over time (KI2, KI6). This is reflected in the increase in the number of specialists (KI1, KI2, KI8) and the availability of specialized medical equipment (KI2, KI9). As one of the respondent put it: *"...someone may come here to us...; it may be a patient with high blood pressure. I may find it difficulty to do an echocardiogram or another medical imaging test. But I'll tell him that if he goes to Saint Luc hospital, he'll have the solution. So instead of going to Burundi or Kigali, I'll refer him to this hospital, where there's a specialist for his hypertension and an imaging specialist*" (KI2). Another added: "*Before, there were few clinics whith equipment and specialists, but now in Bukavu we have medical centers whith equipment and specialists*" (KI9).

However, the quality of health care in the study area varies from one facility to another, depending on whether it is private or state-run (KI1, KI2, KI3); and opinions are divided on the type of facilities where good quality is found. One opinion postulates that private health facilitities offer better care than state facilities (KI3), while another argues the opposite (KI5). The former explains that private hospital facilities are aware of competition in the hospital sector, and therefore strive to improve the quality of care in order to maximize revenue (KI3), while the latter argues that state-run hospital facilities are generally more controlled and sustained, and are therefore likely to offer better care (KI5). In all cases, poor quality of care is associated with under-qualification of human resources, inadequate equipment and a lack of supervision and control (KI2, KI4, KI5, KI6, KI7, KI8, KI10, KI11,).

The quality of hospital providers is important to local residents. Specialists are highly regarded (KI1, KI2, KI5, KI6, KI7, KI9, KI10, KI12). In addition, patient reception is a problem in many hospitals (KI1, KI3, KI7, KI11, KI16). Yet another problem is that of doctors are not always available in hospitals (KI7, KI11). "*We have the impression that there are doctors who are recruited but are not available*" (KI11); and when they are present, a number of them do not pay enough attention to patients. Medical consultations are sketchy and ward roundssuperficial, to the detriment of the patient; not to mention a long waiting time before care (KI11). "*You may find yourself in a hospital at 8 am, perhaps consulted at 11 am to have the results at 2 or 3 pm. Sometimes you have to go home without treatment, only to return to the hospital the next day*" (KI11).

THE COST OF CARE

Overall, healthcare costs are high in relation to the standard of living of the Bukavu population (KI1, KI2, KI3, KI6, KI9, KI11, KI12, KI13, KI14, KI15, KI16). "*In general in Bukavu there is a big problem of accessibility to care... it's a health system that is not financially accessible to everyone... a health system reserved for rich people* (KI6) ". "*It's rarely that you can go to a hospital with 50 or 100 US dollars, just for an outpatient consultation and come back with the tests and medicines. So more and more care is becoming expensive. Medecines are expensive, examinations are extremely expensive in relation to the average citizen's purse and that of the lower class* (KI11) ". This high cost of care leads to under-utilization of formal health services and recourse to self-medication (KI15). In other words, those who do not have sufficient means have difficulty to access care, as it is exchanged directly for the money the patient has to pay before being treated. The logic of this transaction is almost: "*no money, no care*" (KI3). This situation is exacerbated by the lack of a government policy of subsidizing hospitals to pay the care of the most destitute, as underlined by one participant in the study: "*There Congolese state should take responsability for helping the destitute and helping the hospital to be viable, instead of relying solely on the pockets of patients*" (KI9). Given the high cost of healthcare in relation to the purchasing power of most of the population (KI10), some people resort to family solidarity and, for those who can, to mutual health insurance schemes (KI12, KI16). "*For example, I'm a university teacher. I know very well that mutual health insurance also exists at home, and those who work in companies, like my father-in-law who was at Banro, benefit from insurance. This facilitates their access to healthcare*" (KI12).

In all cases, health care is commercialized (KI1, KI5, KI9, KI10). Patients are cared for according to their financial means. "*If you're a subscriber, you have advantages, but if you're not, it's really complicated*" (KI6). This mercantilist tendency is clearly évident in the pricing, and even the number, of laboratory tests whih are often high (KI1, KI2, KI11). Patients are sometimes asked to undergo a surprisingly large number of laboratory tests, without any obvious or justified reason for their importance. "*I have the impression that some clinics, far too many tests are prescribed than are necessary. I tell myself it's to make money, and that's not honest*" reports KI11. And in view of all this, it's not uncommon for patients to indulge in self-medication buying drugs in from the growing number of pharmacies in the area (KI1, KI4).

THE CARE PACKAGE AND THE FACILITY'S ENVIRONMENT

The Ibanda HZ includes both relatively large and smaller hospitals (KI1, KI2, KI6). The larger facilities offer a more or less complete range of activities, while the smaller ones lack a number of activities that they should normally have, given their status as hospital facilities. "*I have the impression that there are things missing from the activities that should be organized in hopsitals. I don't see, for example, psychologists, physiotherapists and so on...*" (KI11).

Overcrowding characterizes many hospitals in the Ibanda HZ. Some have few rooms (KI12) and others lack courtyards (KI11). "*When you are in some private clinics you can only be in your room. There's no place where when you're tired you can move around, no*" (KI 12). Some facilities do not meet hospital hygiene requirements (KI11, KI12). "*I've often noticed that most hospitals are not well maintained. You can see that cleanliness isn't there*" (KI12).

Among the hospital structures in the HZ, there are those that have no authorization to open (KI4, KI5) and are therefore not listed by the HZ. "*They open and operate because of the influence of politicians or other personalities, and do as they please since they are not controlled*" (K14). These are private structures, often not integrated, offering a poorly organized care package. These are supported by people with a certain level of power in the town (a military officer, a member of parliament, etc.) (KI4). However, there are structures that are integrated (KI5); these visibly offer better health services (KI4, KI5) while others that are not, offer care of dubious quality (KI5). The integrated structures are regularly supervised by the HZ management team and from time to time by the Provincial Division of Health management team, from whom they receive technical support, input supplies and equipment (KI5).

Increasingly, the city is witnessing the presence of traditional-modern structures, i.e. those that combine both traditional and modern medicine (KI5, KI10).

4 DISCUSSION

The aim of this study was to list the hospital health structures in the Ibanda HZ, to identify the determinants of the emergence of hospital structures and the perceptions of stakeholders on the care offered by these structures.

4.1 CHARACTERISTICS OF HOSPITAL FACILITIES IN IBANDA

This study counted a total of 40 hospitals in the Ibanda HZ, which covers an area of 18 km2 (approximately 5 km in diameter). This is in line with national standards, wich stipulate that the maximum diameter of a health zone should be 150 km [1]. In addition, there is a multitude of structures offering a complementary package of activities, albeit often incomplete, in the said HZ. On the other hand, these structures are unevenly distributed within health areas (HA). Some HA have no hospital facilities at all, while others have as many as six. This shows that these facilities are being created in a haphazard fashion, without any prior planning by the health authorities in line with needs of the population, which are often not identified with the participation of the community. In Morocco, for example, a health map is drawn up so that the projected creation and location of health facilities is based on the population of the health territory concerned; epidemiological, geographical and socio-economic characteristics; and the orientations of the development plans relating to the territory [17]. According to a study carried out in Burkina-Faso, health mapping should offer a certain degree of cohérence in terms of human geography, i.e., be based on patients' behavior with regard to health care provision and on the analysis of catchment areas. This division should also take into account the rapid and recent evolution of the healthcare provision, as well as urban growth and sprawl, while taking into account all the players in the healthcare system, whether private, religious, traditional or community-based [18]. In this sense, the health map is a tool that attempts to limit the unbridled expansion of hospital provision [19].

The majority of hospitals in the Ibanda HZ are private for-profit. An assessment of the private health sector in the Democratic Republic of Congo indicates that private providers, particularly faith-based organizations, expanded in the late 1990s and early 2000s to fill gaps in the public health sector following the cuntry's political and civil destabilization [20]. On the other hand, with most public systems in disarray (not least due to structural adjustment programs), an attractive option for governments is to choose not to rebuild public systems, but to outsource care delivery and to rely increasingly on private providers [21]. Moreover, outsourcing healthcare provision to commercial investors is detrimental to the public sector, as it diverts scarce resources. Examples include the way in which the presence of the private for-profit sector in one country, or of medical tourism industries in neighboring countries, attracts healthcare professionals away from the public sector by offering them higher salaries [21].

With regard to the integration of hospital facilities, 45% of the health facilities identified are not integrated within the health pyramid, and the majority of private for-profit facilities (63.6%) are not. A study carried out in the neighboring town of Goma in 2020 on the state of private health facilities showed that the Provincial Health Division and the Health Zones in charge rarely carry out supervisions in these no-integrated private health facilities. The same study indicated that the spontaneous proliferation of health care provision often takes place outside the norms established by the DRC Ministry of Health [21]. One of the reasons for the no-integration of health facilities is that many of these structures, which do not meet the conditions for operation, work underground and are therefore not supervised and controlled.

While we would expect not to see no vaccination in for-profit private facilities, are they are "not directly profitable", the study shows instead that they organize it in 68.2% of cases, while faith-based health facilities organize it in 100% of cases and state-run facilities in 57.1% of cases. Collaboration between profit-making private structures and the health zone sometimes facilitates the distribution of vaccines, which thus reach the population covered by these private structures free of charge if they agree to collaborate [22, 23].

The study showed that certain services, such as ophthalmology (22.5%), ENT (20%), dentistry (47.5%), physiotherapy (25%) and radiography (25%) are not often present in hospital structures in the Ibanda HZ. On the other hand, other services including the laboratory (100%), pharmacy (100%) and ultrasound (92%) are often present. The presence of a service in a facility seems to be dictated by its profitability rather than by the benefit it can bring to patients. The example of Peru demonstrated that the need to generate profits drove providers to privilege a biomedical approach and to apply complex and often unnecessary treatments based on technology and chemistry, to the detriment of taking into account the healthcare system as a whole [24].

4.2 Determinants Of The Proliferation Of Healthcare Structures

Many of the medical science graduates produced by educational institutions cannot find health facilities to employ them. So, one way of finding an outlet is to set up a new health facility when you have the means to do so. As Quattrochi et al [25] point out, the proliferation of medical services is also the result of the continuation (and even expansion) of privatized, for-profit training of nurses and doctors in a state where the capacity to employ these practitioners after training is lacking. This phenomenon is one of the main causes of the first-level medicalization in urban areas of the DRC. Indeed, in a study carried out in Kisangani, doctors reported that one of the main reasons motivating them to work in front-line health facilities was a lack of employment, attributed to their failure to be recruited by public hospitals, which make it difficult for them to survive and acquire skills [26, 27].

But demand for healthcare services in the Ibanda HZ is also high. The population of Bukavu is growing by the day, and so is the need for health services, not least because of the influx of people from insecure areas into the city. This rise in demand is creating an opportunity, and opening a health facility is becoming a good business for individuals and institutions such as religious denominations.

In a study carried out in Lubumbashi in 2016, MULOLO found that 96% of HF were privately owned (85.4% private for-profit and 10.4% denominational) and that only 4% were state-owned [28]. The Same observation was made by CHENGE, who found that the public sector was in the minority in Lubumbashi, with less than 10% of the available supply. It is the “independent private” sector, run mainly by health professionals (nurses, doctors, etc.) who also own the facilities, which intervenes in the main player in the provision of non-hospital care, no doubt as an individual survival strategy [5, 7]. In addition, standards for the establishment of health facilities are often not checked when new facilities are created.

4.3 Perceptions Of Care Provided By Ibanda’s Hospitals

Our study suggests that the quality of hospital care has improved over time in the Ibanda HZ. Fewer patients are being referred abroad, unlike a few years ago. Hospitals in the HZ and in the town are now staffed with specialists, and increasingly with diagnostic and treatment equipment. A supply-side assessment of the quality of basic health care and services in the Democratic Republic of Congo, carried out in 2011, suggested that efforts should be made in the area of material resources and the acquisition of essential diagnosis and treatment equipment [29].

However, the quality of care is not the same in all facilities. It seems to be good in non-state facilities and in those integrated into the health pyramid; which is not the case for state facilities and those that are not integrated. This is why the results of a study on the state of private health facilities called for the State to fully assume its role by concentrating primarily on regulating the supply of care in the health care facilities under its control [30, 31].

Although the overall quality of care in Bukavu’s health facilities is judged to be good (compared with the past and with the rural environment), poor quality of care is associated with unprofessional staff, a lack of adequate equipment and medecines,

and a low capacity to mobilize income to run the facility. For the WHO, the provision of quality healthcare is based on six fundamental elements: health workers; healthcare facilities; medecines, devices and other medical technologies; information systems; and financing [32].

In general, the costs of care in hospitals in the Ibanda HZ and the city of Bukavu are perceived as high compared to the financial possibilities of the most of the population. As direct payment is the norm, access to care is conditional on advance payment of part of the cost. A review of the impact of direct payment on access to care showed that introduction or increase of fees can have a negative impact on the use of healthcare services, although there is some evidence to suggest that when implemented with quality improvements, these interventions can be beneficial [33]. This situation is all the more dramatic by the fact that pricing is the same for everyone, without taking into account patients' socio-economic level. So, whether you're rich, middle-class or poor, you're billed the same amount for the services use.

To cope with the high cost of healthcare, the inhabitants of the Ibanda HZ, like those of the whole city of Bukavu, resort to alternative solutions such as self-medication or traditional medicine. This is at the root of the proliferation of pharmaceutical dispensaries and traditional practitioners' houses, with all the possible consequences of informal care, including the risk of iatrogenic medication. A 2013 study [34] carried out in Kinshasa highlighted the high frequency (60%) of self-medication among more educated urban patients attending university hospital emergency departments. This study thus suggests that self-medication, understood as the consumption of medecines neither prescribed nor recommended by a professional, is the therapeutic choice of the majority of this population, a therapeutic alternative facilitated by the over-the-counter sale of medicines [35]. In another study carried out in 2017 in the city of Bukavu, 56.8% of respondents found the costs of traditional medicine more affordable than that of modern medicine [36]; which partly explains the increased use of traditional medicine. Previous studies carried out in the DRC have observed an increase in the use of services following a reduction in the cost of care [11, 37-39].

Analysis of the results of our research shows that the number of HF in the Ibanda HZ is increasing. The interviewees in this study classify these facilities as large or small, depending on the infrastructure in which they are housed, the range of the services offered, equipment and staff. The infrastructure of most health facilities in the HZ do not meet standards. Many of them had been designed as residential houses before being assigned to hospital use. But few of them are integrated into the health pyramid. All this is done in disregard of the legal provisions in force in the DRC.

A special category of HF is becoming increasingly popular in the Ibanda HZ: the traditional-modern HF [36]. Traditional beliefs, the high cost of care in modern facilities and, above all, the phenomenon of "*Karuho*" poisoning [40] are all factors bihind the proliferation of these facilities.

The study shows that the public has a high regard for specialist doctors, and that the initial training of some general practitioners is considered "dubious". Nurse are also criticized for lack of initial and continuing training. And this is associated with poor quality of care. According to Wembonyama et al [27], the proliferation of private training structures, particulary in the medical sector, is one of the causes of the decline in the quality of training of health personnel and the lack of skills required in professional life.

The patient-caregiver relationship is deteriorating in the terms of patient reception of patients, the availability of doctors in the hospitals where they are supposed to be, the attention they pay to patients, and the time elapsed before a prescription is issued. The quality of the patient-caregiver relationship is, in fact, an important factor in the quality of care, in that it determines the best shared and informed decisions, the continuity of medical follow-up, good feedback and satisfaction for the doctor in appreciating the benefits of his or her practice [41].

5 CONCLUSION

The study shows that hospital structures, unevenly distributed in the AS, are essentially profit-driven. Most health facilities are privately owned for profit, and do not comply with establishment or operating standards.

Appropriate measures are needed to improve the organization and operation of hospital facilities in the Ibanda HZ, including strict monitoring of the establishment of new health facilities, regular supervision of all facilities by the Health Zone management team, and the closure of unregulated facilities. This implies revising the DRC's health standards, giving the HZ the power to close down unviable facilities, and adapting these standards to the new realities of urban health zones, where the medicalization of the first level of care has become a fact of life. We also need to ensure rigorous supervision of healthcare staff, in particular basic training and ongoing capacity-building.

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