



Availability and Quality of Family Planning Services in the City of Lubumbashi, Democratic Republic of Congo

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Abstract

Introduction: The long-term availability of contraceptive methods and the provision of quality planning services are bedrock for increasing contraceptive prevalence. The objectives of this study are to determine the coverage and availability of family planning (FP) services, as well as to evaluate the quality of these services in the city of Lubumbashi. **Methods:** From May to June 2017, we carried out a descriptive transversal study in several health facilities (HF) in the city of Lubumbashi. We have comprehensively included all the health facilities we have identified. The data were collected by interviews, documentary analyses and observation, guided by a questionnaire. We calculated the proportions for the different variables and the quality was evaluated using the score we built for this purpose. **Results:** Our study involved 570 health facilities. The coverage for family planning services was 0.7/10,000 inhabitants. Their availability was 29.6% among the visited structures; 10.1% of HF had no contraceptives in stock, 10.1% had one to two contraceptives and 79.9% had three or more. The quality of FP services was good in the majority (82%) of HF, average in 12% and poor in 6% of the cases. **Conclusion:** The coverage of FP services and their availability in the city of Lubumbashi were low. The quality of family planning services was good in most health facilities offering FP services. Improving coverage and availability of family planning services in Lubumbashi, as well as the innovation of the most appropriate supply strategies, is essential to increase contraceptive prevalence.

Subject Area

Public Health

Keywords

Family Planning, Contraceptive Methods, Contraception, Quality of Care

1. Introduction

Contraceptive methods could reduce maternal mortality by 29 percent and infant mortality by 10 percent each year if available to all who need it [1]. They improve the health of women and children and in the long run make women economically productive and active [2], family planning being a priority for all countries aspiring to development [3] [4]. However, contraceptive methods remain poorly used in Central Africa and DR Congo [2] [5]. Among 19% of women who use any contraceptive method, 11% use a traditional method and only 8% use a modern method [6], and in the city of Lubumbashi, 23.5% of the 28.4% using any birth control use modern contraceptive methods compared to 4.9% using traditional methods [7]. On the other hand, unmet needs in FP are increasing in DR Congo (28%) [2] [6]. In the DRC, women attend pre-natal consultations (PNC) (90%), give birth in maternity wards (80%), attend post-natal consultations (48%) and have their newborns completely vaccinated (45%) [6]. All of these mothers could proportionally benefit from all these family planning services. For the city of Lubumbashi, 92.6% of women who have given birth follow pre-natal consultation, 93.8% give birth in a health facility, 97.2% give birth in the presence of a qualified health staff and 36.4% attend post-natal consultation [8]; however, FP services remain the most important part of the maternal health package. In addition, family planning is an integral part of primary health care (PHC), which constitutes the health policy of the DRC [9]. As such, FP is part of the minimum package of activities of the health center and the complementary package of activities of the general referral hospital [10]. Making contraceptive methods available and providing quality care to clients is a major pedestal for the provision of family planning services [11].

According to Shireen *et al.*, improving health services in general and FP in particular can have a direct influence on increasing contraceptive prevalence [12]. In 2009, a conference was held in Kinshasa to promote the repositioning of family planning in health interventions to improve the health of mothers, newborns and children [13]. By 2020, the DRC wants to offer FP services to 2.1 million new accepting in order to achieve a modern contraceptive prevalence of 19% across the country [14]. Making FP services accessible and usable is one of the levers for achieving this goal.

This study aimed to determine the coverage of the city of Lubumbashi in family planning services, to identify the methods of contraception available in health facilities (HF) and to assess the quality of FP services provided to clients in the health facilities concerned.

2. Methods

To achieve these objectives, we carried out a cross-sectional descriptive study in the health facilities of the city of Lubumbashi, from May to July 2017. We comprehensively included all the health structures identified during the survey, in 10 Health Zones (health districts) of the city of Lubumbashi (Kamalondo, Kam-pemba, Katuba, Kenya, Kowe, Lubumbashi, Mumbunda, Rwashi, Tshamilemba and Vangu); all functional Health Areas have been included. For the two Special Health Zones (Kowe and Vangu), only structures present in the city of Lubumbashi were visited. The Kisanga Health Zone was excluded due to the incident that led to the looting and burning of the Central Office and the Reference General Hospital on December 19, 2017. These 10 Health Zones cover a population estimated at 2,405,301 inhabitants in 2017, or 505,113 women of childbearing age (21%). We recruited, selected and trained the interviewers who collected the data. The sketches and lists of the Central Offices of Health Zones allowed us to identify the recognized structures. For non-integrated health facilities, the snowball technique helped us to identify them. In practice, in each structure, a question was asked to the respondent to verify the existence of another structure in the Health Area, and the structure was automatically visited. The interview technique guided by a questionnaire enabled us to collect the data; the information collected was validated after the documentary analysis (PF register) and the direct observation which focused on the verification of FP inputs in stock, furniture and other necessary materials. The quality of FP services, although complex [15], was evaluated according to the following criteria: presence of a document containing guidelines on the use of contraceptive methods (score: 3), presence of at least one member of the staff trained in family planning (score: 5), the offer of at least three contraceptive methods [16] including at least two modern (score: 7), presence of a local for counseling guaranteeing confidentiality (score: 3), existence of at least one fixed day per week spent on FP (score: 1) and possession of a FP data collection document including the FP register and PF cards (score: 2). Thus, the total score was 21. The interpretation was as follows: 1 - 10 = poor quality of services; 11 - 15 = average quality of services; 16 - 21 = good quality of services.

The collected data were encoded in Excel and analyzed with the Epi Info version 7 software. The proportions of the different variables were calculated.

3. Results

In this study we included 570 health facilities (HF) identified in the ten Health Zones visited. The health coverage was 2.4 health facilities/10,000 inhabitants and the family planning services coverage in the city of Lubumbashi was 0.7/10,000 inhabitants.

On the other hand, the availability of family planning services in the health facilities was 29.6% (169/570). Of those who organized FP services, 74.6% were private facilities, 14.2% were state-owned and 11.2% were faith-based. Those

who did not organize FP services were all private (89 Health facilities). The reasons given were the lack of partners, material/resources and training in FP. The majority of the visited facilities which were offering FP services (95.3%) had at least one staff trained in Family Planning, compared to 4.7% who did not. The oldest training was in 2013, for the health facilities who cited the date of the last training. However, 61 health facilities (37.9%) out of 161 with trained staff did not mention the date, or the year and even less the month of the last FP training. The most cited occupational category in charge of family planning in health facilities was the A1 (graduate) nurses, who were present in 100 structures (59.2%), followed by general practitioners (38, 5%) and A2 nurses (36.1%); A3 nurses were less present in FP services (13.6%). The proportion of facilities with FP-trained physicians providing FP services was relatively low (69.2% and 62.5%, respectively, of the facilities with trained generalist physician and gynecologists and obstetricians trained in FP). On the other hand, **Table 1** shows that the health facilities who had at least one graduate nurse in charge of FP, were more likely to have trained in FP in 81% of cases. We observed that three out of four (75.1%) structures did not have a document containing guidelines on the use of contraceptive methods against 24.9% who had a module or training support in FP: a syllabus, a book, the technical sheet of PF or the disc for the choice of methods and leaflets; PF data collection tools (registers or PF card) were present in 145 structures (85.8%) and absent in 24 (14.2%). Possession of a FP counseling room guaranteeing confidentiality was recorded in 87.6% of the HF and not found in 12.42% of these. **Table 2** shows that an appropriate space for educational talks and customer awareness was present in 144 health facilities (85.2%) and absent in 25 (14.8%) of them. FP educational materials were present in 76.9% of the visited structures (**Table 2**). We observed that 114 structures (67.5%) had at least one fixed day of FP during the week compared to 55 (32.5%) who did not have one. The effectiveness of FP activities seemed to be weak. **Table 3** indicates that during the past six months prior to the survey, more than one-third of the facilities did not carry out the planned FP sessions; those who organized at least one session per week accounted for 23.1% of the total. More than half did not organize any sessions in the community and 7.1% organized at least one session per week. Similarly, the total number of new acceptors in the first quarter of 2017 was 1738 customers and the number of former acceptors was 1103 customers. **Table 4** indicates that the vast majority (98.8%) of the health facilities received less than 50 clients during this period, reflecting the low FP activity in the majority of the health facilities and the low use of contraceptive methods by the population of Lubumbashi.

Table 5 shows that the contraceptive methods offered in the health facilities were the male condom (90.5%), the pill (82.2), the female condom (81.7%), the implants (72.8%), the injectable (68, 6%), IUD (49.7%), an emergency pill (48.5%), the tubal ligation (18.9%), the vasectomy (17.2%), the cycle collar (62%), periodic abstinence according to schedule (74.0%) and LAM (68.6%) (**Table 5**). We

found that ten health facilities (5.9%) offered fewer than three methods to clients compared to 159 (94.1%) who offered three or more.

Table 1. Qualification of providers of family planning services in health facilities.

Professional category	Effective n = 169 (%)	Trained n (%)
Gynecologist/obstetrician	32 (18.9)	20 (62.5)
Generalist physician	65 (38.5)	45 (69.2)
Registered nurse (A0)	56 (33.1)	43 (76.8)
Nurse graduate (A1)	100 (59.2)	81 (81.0)
Nurse A2	61 (36.1)	50 (82.0)
Nurse A3	23 (13.6)	14 (60.9)

Table 2. Possession of materials and equipment needed for family planning services.

Material/equipment	Effective (n = 169)	Percent
FP guideline document	42	24.9
Room for educational	144	85.2
Counseling room	153	90.5
Real estate in the counseling room	140	82.8
Calendar	144	85.2
Gynecological table	131	77.5
FP sheet	137	81.1
FP Appointment card	120	71.0
Register	145	85.8
FP support for educational	130	76.9

Table 3. Number of family planning sessions held in the 6 months prior to the survey, in the health facilities and in the community.

Activities	Effective	Percent
Number of sessions in last 6 months in the health facilities		
None	51	30.2
1 - 5	51	30.2
6 - 11	17	10.1
12 - 23	11	6.5
24 and over	39	23.1
Total	169	100.0
Number of sessions in last 6 months in the community/home visit		
None	86	50.9
1 - 5	42	24.9
6 - 11	18	10.7
12 - 23	11	6.5
24 and over	12	7.1
Total	169	100.0

Table 4. Old and news accepting to contraceptive methods in 2016 and the first quarter of 2017.

User's number	Effective	Percent
News accepting		
0	11	6.5
1 - 10	43	25.4
11 - 20	18	10.7
21 - 30	15	8.9
31 - 40	5	3.0
41 - 50	6	3.6
51 and over	4	2.4
No-existents data	67	39.6
Total	169	100
Total new accepting	1738	
Total new accepting in2016	3330	
Old accepting		
0	96	56.8
1 - 10	41	24.3
11 - 20	12	7.1
21 - 30	8	4.7
31 - 40	6	3.6
41 - 50	3	1.8
51 and over	3	1.8
Total	169	100
Total of old accepting	1103	
Old accepting in 2016	1897	
Administrative contraceptive prevalence 1st trimester in 2017	2841	0.6
Administrative contraceptive prevalence in 2016	5227	1.0

Table 5. Contraceptive methods offered and in stock in health facilities and health coverage by contraceptive method.

Methods	Offer	In stock	Coverage by method
	n = 169 (%)	n = 169 (%)	(Health facility/inhabitants)
Male condom	153 (90.5)	127 (75.1)	1/15,721
Female condom	138 (81.7)	119 (70.4)	1/17,430
Pill	139 (82.2)	118 (69.8)	1/17,304
Emergency pill	82 (48.5)	65 (38.5)	1/29,333
Injectable	116 (68.6)	89 (52.7)	1/20,735
IUD	84 (49.7)	60 (35.5)	1/28,635

Continued

Implants	123 (72.8)	101 (59.8)	1/19,555
Spermicide	41 (24.3)	22 (13.0)	1/58,666
Patch	17 (10.1)	9 (5.3)	1/141,488
Diaphragm	13 (7.7)	15 (8.9)	1/185,023
Tubal ligation	32 (18.9)		1/75,166
Vasectomy	29 (17.2)		1/82,941
Necklace of the cycle	106 (62.7)	88 (52.1)	1/22,692
Calendar	125 (74.0)		1/19,242
LAM	116 (68.6)		1/20,735
FP sheet		99 (58.6)	
Appointment Card		0 (0)	

We found that the contraceptive methods and the materials that were in the stock the day of the visit were the male condom (75.1%), the female condom (70.4%), the pill (69.8%), the implants (59.8%), an injectables (52.7%), an emergency pills (38.5%), IUDs (35.5%), spermicides (13.0%), cycle collar (52.2%), the PF card (58.6%) and the appointment card (0%); that same day, 10.1% of facilities had no contraceptives in stock, 10.1% had one to two and 79.9% had three or more.

We found that contraceptive health coverage was less than one structure per 10,000 population. In the last six months prior to the survey, only 61.5% of health facilities were supervised in family planning compared to 39.5% who had received no supervision. The supervisors were the Ministry of Health's peripheral (health district) or intermediary health officers as well as the Family Planning partners of the Ministry of Health (USAID, PROVIC, ASF, ABF, ICAP, DKT, UNFPA, and UNICEF). We noted the presence of family planning partners in 47.9% of the structures visited; 71% of the facilities benefited from the partnership of the Ministry of Health and partners compared to 30% who did not benefit from this support. **Figure 1** demonstrated that the quality of FP services was good in majority (82%), average in 12% of the structures and poor in 6% of these. We observed that 91.7% of the state structures offered good quality services against respectively 89.4% and 78.6% of the confessional and private structures.

4. Discussion

Coverage for family planning services was low and lower than total health coverage. The total health coverage is growing in Lubumbashi; it was 1.5/10,000 inhabitants in 2006 [17]. This low coverage of family planning services may reflect the lack of prioritization of these services by health care providers and as a result explain low contraceptive prevalence.

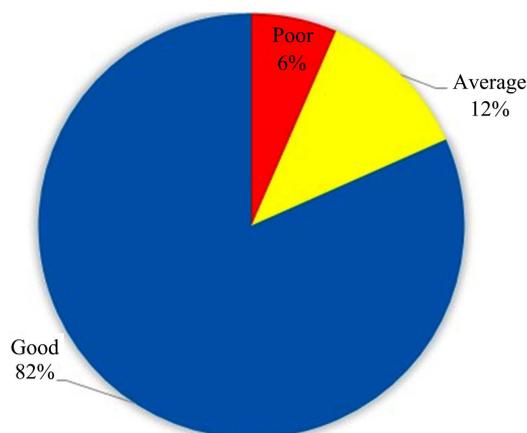


Figure 1. Quality of family planning services in health facilities in Lubumbashi.

Availability of family planning services was low. In Kinshasa, it was 78% in the public sector and 30% in the private sector; overall, availability was low [18]. This low availability may partly explain the low use of contraceptive methods in Lubumbashi. This low availability has also been reported by Mpunga *et al.* in DR Congo (33% in general and 38.1% in urban areas) [19]; however, these authors have used the Ministry of Health's administrative database, which is derived from the commonly unreliable national health information system. In Kinshasa, the availability of FP in health facilities was 84% [20]; however the sample size of 184 health facilities used by the authors in Kinshasa seem to be an insufficient number for a statistically significant and representative sample. On the other hand, in Malawi, Kenya and Haiti, the availability of family planning services was higher than the one observed in Lubumbashi, with 83%, 88% and 84% respectively of health facilities surveyed [21]. Such low availability represents a real bottleneck for the increase in contraceptive prevalence in DR Congo and particularly in Lubumbashi: this seems unfortunately logical given the low prevalence of contraception.

We noted that almost 3/4 of the health facilities that offered FP services were private facilities. This demonstrates the outstanding prevalence of private health facilities in the provision of health services generally in urban areas, exacerbated by the over-production of health personnel seeking employment, striving to provide health care of doubtful and even dehumanizing quality [22]. The private structures are usually lucrative. The predominance of the private sector has also been reported in Kenya [23], as well as in Ghana and Tanzania [24]. Its regulation and supervision are imperative.

Only 79.9% of the structures had three or more contraceptives in stock. These results are higher than those obtained in 2013 in DR Congo, which was 48.5% for the whole country [18]. Time could explain this difference, as well as the national coverage of this latest study, which also covered the often underprivileged rural environment.

In our study, here family planning services were offered; they were mostly of good quality (82%), despite their low utilization. Mpunga *et al.* concluded that 20% of family planning services in RD Congo were generally of high quality and 35.1% were in urban areas [19]. The different methods used to measure quality in the two cases could explain this difference. Bertrand *et al.* found that in Kinshasa only 44% of facilities offered good quality family planning services [20]; the uneven support of the Ministry of Health's partners in the country could explain the differences in our results.

The consideration of client satisfaction and the observation of the counseling process may complement the analysis of the quality of services. Therefore, the standardization of the measure for the quality of family planning services is a necessity. Similarly, a qualitative study on the underlying reasons for non-use of contraceptive methods, despite the good organizational quality of services, is imperative.

5. Conclusion

We have shown in this study that family planning coverage and availability are low in the city of Lubumbashi. Contraceptives were in stock in most health facilities that organized family planning services. However, methods were poorly used where available. Family planning services were of good quality in most of the health facilities. Improving coverage and availability of family planning services in Lubumbashi, as well as innovative best-fit delivery strategies and incentives, is key to increasing contraceptive prevalence.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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