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Accessing Health Care and Quality of Health Care in Hill Rural Areas of Burundi

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Abstract: ***Fee exemptions do not overcome barriers to health accessibilities. Geographic and financial accessibility, luck of equity, poor quality of services and inefficiency, are the main barriers to health accessibilities in Burundi. Rural populations have to work longer distances to reach a health center and/or a pharmacy. And though the quality of diagnostic and medical prescription is poor in general, rural populations still appreciate this quality on basis of the final end of the patient. The curative consultation is good when the patient is completely healed otherwise its quality is bad. And a medical prescription is of good quality when local pharmacists can easily read it. Local government pharmacies are challenged with shortages of drugs while private pharmacies have enough and on regular basis. Rural populations think that the regular availability of drugs in local pharmacies and the recurrent stocks-outs of drugs in government pharmacies are closely linked. The paper evaluates the effects of user fees exemption on health care accessibility and on quality of health care in hill rural areas. The paper argues that health care services are hardly accessible to rural households and are of poor quality.***

Keywords: User fees exemptions, health care accessibility

1. Introduction

Fee exemptions do not overcome barriers to health accessibilities. Geographic and financial accessibility, luck of equity, poor quality of services and inefficiency, are the main barriers to health accessibilities in Burundi. There is lack of enough health centers both public and private. When these population don't get health care services from the government health centers that acouts the commune, they have to seek them from neighboring communes of Kabezi, Mutambu and Bugarama. In the commune Muhuta where we conducted our survey, 40% of rural households surveyed have access to 1 health center; 25% households have access 2 health centers, 15.5% have access to 3 health centers while 19.5% have access to 4 health centers where they can get basic health care services.

Of the 200 households surveyed, 61% have to walk more than 5km to reach and come back from a health center while 39% walk only a distance equal to or less than 5km to go and come back from a health center of their choce. The majority of these populations (41.66%) neeed 4 hours to 5 hours to go and come back from a health center; 10.71% walk 3 hours; 6.54% walk for about 2.5 hours; 8.92% walk for about 2 hours while 9.52% can walk for about 1.5 hours to reach a health center. In this hill area there are 15.5% of the population that need to walk 5 to 10 hours whereas 0.5% walks between 15 to 20 hours.

We have found that of the 4 government health centers of the commune, there are only 2 pharmacies this made these rural populations have choice from public and private pharmacies. Thus, 36.5% of households surveyed have access to 1 nearby pharmacy; 13% have access to 2 pharmacies; 3.5% have access to 3 pharmacies; 25.5% have access to 4 pharmacies; 11% have access to 5 pharmacies; 14 7% have access to 6 pharmacies and 3% have access to 7 pharmacies while 0.5% have access to 8 pharmacies where they can buy their prescribed medicines. And due to this long distance that they have to cover, 34.5% households can walk from 0km to 5km while 36% households can walk from 5km to 10km. The majority of the population (65.5%) have to walk some times more than 5 km to reach a pharmacy but this depends on where the medicines they need to buy are available. Of the 200 households surveyed, 86% need to walk from 0hour to 5 hours to reach a pharmacy whereby 78.26% walk 4 hours and 21.73% walk about 5 hours to go and come back from a pharmacy. This means that 53.48 need to walk 4 to 5 hours to reach a pharmacy. However, there are 13% of the population who need to walk from 5 hours to 10 hours and 1% that can walk from 10 hours to 15 hours to reach a pharmacy.

The majority of patients (74%) go at least to government health centers for their curative consultations. And 68.5% buy their prescribed medicines from private health providers. The quality of curative consultation at government health centers is questionable. The poor quality of curative consultations and shortages of drugs in government facilities were common challenges raised by respondents. For example, while 50% get consulted at government health centers only 20% households buy their prescribed medicines only at government pharmacies. And due to this shortages of drugs at government pharmacies, rural households decide to buy from different pharmacies to complete prescribe medicines. Thus, 16% of patients buy medicines at both public and private pharmacies; 1% buys from government pharmacy and ask the remaining from his neighbor; 0.5% of patients buys from private pharmacy and asks the remaining from his neighbor; 0.5% of patients buys at black market and the reste from asks his neighbor; 1.5% buy at private pharmacy and ask the remaing from his neighbor. However, 11.5% households of our respondents prefered not to reveal where they buy their medines which led to question the source of drugs sold by nongovernment pharmacies.

The final end of the results of patients (completely health or not healed) are the only indicators of good or bad medical diagnosis. For example, 21.95% think that a medical diagnosis is good when the patient is fully healed and while 14.63% patients had no idea about the quality of medical diagnosis, 5.48% say the quality of diagnosis at their local

health centers is bad. And only 39.63% affirmed that the quality of diagnosis is good. However 18.29% patients affirmed that they were not diagnosed due to lack of adequate medical equipments at their local government health centers.

Rural populations have different views on the source of drugs they are advised by government nursers to buy from well identified and specified local private pharmacies. For example, the link the recurrent shortages of drugs at rural government pharmacies and the availability of drugs on regular basis at local private. Thus, 15.5% of households surveyed think that local private pharmacists sell medicines sold by local government nursers while 16% of households prefered no to say anything about the source of drugs sold in private pharmacies. In fact, for those who think that local pharmcists buy these medicines from local public health centers and those who say that they have no idea, refer to the fact that after medical consultation and prescription, government nurses indicate the patients which specific pharmacies have the drugs they need and which are not available in government health center's pharmacies. The paper evaluates the effects of user fees exemption on health care accessibility and on quality of health care in hill rural areas. The paper concludes that health care services are hardly accessible to rural households and are of poor quality.

2. Data and Methods

The data on health accessibility and quality of health care were collected in the hill rural area of Muhuta commune, in the Province of Rumonge. The core sample of villages was randomly selected from 4 zones of the commune with probability of proportional to the number of villages. The number of 200 households was drawn in four parts. The first part represented a core sample of 89 households selected objectively from zone Gitaza with probability proportional to the number of households. The second part represented a core sample of 34 households also selected objectively from zone Rutongo with probability proportional to the number of households. The third part represented a core sample of 32 households all selected objectively from zone Busenge with probability proportional to the number of households. The fourth part represented a core sample of 45 households selected objectively from zone Muhuta with probability proportional to the number of households. Households were randomly selected and surveyed.

All questionnaires were schedule questionnaires and were filled in by survey agents who climbed mountains to meet them in their villages. The survey agents were well trained to record exactly in the same wording the responses and without influencing the respondents. The respondents were assured of anonymity and confidentiality of their responses. All households were unable to remember the exact distance and time they walk to reach health facilities. They also had difficulties to appreciate the quality of medical diagnosis and prescription. The raw data collected was captured and statistically analyzed in order to draw conclusions on the outcomes bout health care accessibility and quality of health care in hill rural area. The field research was conducted in the month of July 2018 and responses were asked, answered and recorded in local language Kirundi.

3. Previous Studies

3.1 Health Care Accessibility

3.1.1 User Fee Exemption and Equity

User fee systems have affected the equity in that fees by themselves tended to dissuade the poor more than the rich from using health services and have been shown to be associated both with delays in accessing care and with increased use of self-medication and informal sources of care. And in the case fees are associated with quality improvements, as in BI-type community financing schemes, their negative impact on utilization is offset, and the introduction of fees-plus-quality improvement may even generate utilization increases amongst the poorest. The nature of the quality improvements required to offset utilization reductions (e.g. improved staff courtesy) cannot be addressed simply by revenue generation (Lucy Gilson 2014).

The nature of the payment mechanism is an important influence over its utilization and equity impact in the sense that pure user fee systems are more likely to enhance inequities in access to health care than those which allow for risk-sharing and/or pre-payment, but fees levied for services received (such drugs) are less likely than general consultation fees to discourage utilization. And fees do not appear to generate adequate revenue or to be associated with the resource re-allocations necessary to enable substantial and sustained improvements in health care for the poor.

The implementation of both formal and informal exemptions or sliding scales which could protect the poor from the full burden of fees is usually ineffective because it does not protect the poor. It simply may benefit more wealthy groups (such as civil servants who are exempted from fee payment).

In most cases, fee exemptions are rarely, if ever, implemented where the primary objective of the fee system is financial sustainability, as in BI-type schemes, because they necessarily lower revenue generation levels that health facilities need.
Inequality can also result from the differential implementation of fees between geographical areas within a country. More wealthy areas charge less than poorer areas, particularly if regions of different income level are expected to recover similar proportions of their costs (Lucy Gilson 2014).

3.1.2 User Fees Exemption and the Bamako Initiative

Due to problems related to user fee recovery, most African countries have introduced user fees exemption policies for some vulnerable categories of persons. However, all these countries have similar problems related to policy design and implementation. These new policies are decided with a mixture of internal political calculations and external pressure. The functioning of these policies was in most cases chaotic and incoherent due to lack of preparation, lack of communication, lack of efficient management and mostly lack of finances which caused many unexpected effects such as stock-outs and poor health care quality.

These reforms turned somehow the page for the consensus that was build around the Bamako initiative since end of the 1980s, and was encrypted at the heart of African health systems which was: (i) partial costs recovery at the point of service delivery, (ii) generic essential medicines and (iii) community participation. The Bamako initiative has got confusing results. On the one hand, the medicines have become available everywhere in most health centers that were built, but, on the other hand, health care services have remained financially inaccessible for most vulnerable populations. Access to health care services was very unsatisfactory.

And if the management committees allowed users a certain right of control on health personnel, the functioning then posed many problems. Thus, health in Africa had four major challenges and none of them had been resolved in the frame of partial costs recovery policies: for instance, health indicators have got weak improvements, the Millennium Development Goals (MDGs) were not attained by 2015, a high portion of the populations were excluded from modern health care systems, in particular vulnerable groups and human resources were insufficient in most cases and unequally distributed; the budget share in national budgets was critically insufficient and lagged far behind the Abuja declaration in most countries.

User fee exemption policies at the point of health care delivery were introduced to resolve the problems related to financial barriers to health care access. The commission of WHO had expressed the idea of suppressing user fees at the point of health care delivery in 2008. The Ouagadougou declaration had also recalled in 2008 the importance of equity. African head of states had recalled in 2010 for user fee exemption for pregnant women and children under-five years following the UN agencies which took the same position from 2009 (Ridde 2012; WHO 2011; Oumar M. S. & Valéry R. 2012).

In Burundi the policy to remove user fees was formulated in a hasty and incomplete way with little attention to: (i) the ultimate objectives (whether equity in general or the promotion of the MDGs), (ii) the existing situation (no baseline study was undertaken) and (iii) the available financial resources. In this regard, no economic assessment of the impact of the reform was performed. The assumption was that the funds available from the Highly Indebted Poor Countries (HIPC) Initiative could cover all incremental costs. But, these funds ended few months later. Thus a budgetary revision, as well as in-kind support from international donors, was required to keep the reform going. Secondly, the reform was announced before any accompanying measures were defined. The removal of user fees was not adequately monitored and evaluated, and there were no comprehensive analyses available of the impact of the reform such as changes in utilization rates, perceived quality of services, drug stock-outs, costs, etc. at country level (MMOH 2014; Nimpagaritse M. & Maria P.B. 2011).

3.1.3 User fee Exemption and Financial Accessibility

David H. Peters 2008 refers to financial accessibility as the relationship between the price of services which is in part affected by their costs and the willingness and ability of users to pay for those services, as well as be protected from the economic consequences of health costs. Financial accessibility constitutes the major obstacle for the poor to access health care services in developing countries. User fees have been a contentious source of financing public health services in poor countries settings. The monetization of health services was introduced in 1987 by the World Bank to solve the problems of scarcity of public financing, the prominence of the government in the supply of essential health care, the inability of the government to allocate adequate budget to its health system, the low and nonsalaries of health workers, the limited public control over pricing practices by public providers, and the lack of key medical supplies such as drugs.

Though the Bamako initiative has contributed to guarantee a sufficient financial level of health care services at local level, the availability of essential medicines and effective implication of local communities in health services management, it has maintained exclusion of poorest populations due to financial reasons. Even the World Bank which encouraged user fee recovery has recognized that many poor people were constrained to choose between not having health care services and face the challenge of being financially ruined.

The solutions proposed through exemption of cost payment for indigent persons did not attain the expected results due to difficulties related to objective identification of the beneficiaries; families still experienced out-of- pocket spending even when maternal health user fees were nominally removed. And this spending may be incurred for other costs within the facility (supplies, drugs), including fees for relevant and needed services that are not officially ‘covered’ by the exemption policy, i.e. informal fees or indirect costs for transportation and food (Rodin & De Ferranti 2012; Valéry R.; Ludovic Q. & Yamba K. 2009; Laurel E. Hatt et al. 2013). The new paradigm in favor of user fee exemption was associated with a long term objective of setting up a universal access to health system that emerged in the 2000s. This paradigm carried with it the idea of equity in favor of vulnerable or poorest, and the idea of exemption of user fee in order to increase significantly general accessibility and frequentation of health facilities due to financial barriers (Ridde 2012; Oumar M. S. & Valéry R. 2012).

3.1.4 User Fee and Quality of Health Care

An argument sometimes made in favour of user charges was that these could allow providers to improve the quality of care, using additional resources generated. This could, in turn, make providers more attentive to consumers since they are the source of the additional resources. Attentiveness to consumers and improvements in the availability of drugs and supplies could make the services sufficiently attractive that consumers would use as many services as those before the user charges were introduced.

However, if facilities experience an uncompensated loss in fee revenue while patient volumes simultaneously increase, the quality could decline over time. Shortages of inputs, like drugs and supplies could occur; providers may become less responsive and motivated; and consumers’ tendency to use

more services at lower prices might be overcome by the perception of lower quality. And non-deleterious supply-side effects of user fee exemptions seem to correlate with whether policies were effectively put into place to ensure that facility-operating budgets and providers' incomes did not decrease and whether systems-strengthening measures were implemented to accommodate increased patient volumes. The adequacy of pre-existing infrastructure, human resources, and supply chain systems was protective and so were the steps taken to reinforce systems prior to and during the implementation of the fee exemption policy.

In Cambodia for example collecting user fees and putting the revenue towards supply-side improvements has correlated with increased patient volumes for maternal health services while in Ghana the loss of user fee revenue at health facilities led to stock-outs of drugs and supplies that have negatively affected the quality of care provided and resulted in reinstituting fees by some facilities. Previous poor-quality delivery services in hospital remained of poor quality after the introduction of the fee removal policy.

In Burundi, fee removal policy resulted in critical negative consequences for health care providers, including stock-outs of drugs, reduced quality of services, disruption of the referral system, and reduced motivation of health workers. Though some NGOs have set up some initiatives to replace the user fee revenues, sustainability in both cases after the NGOs funding ends remained the core problem.

And in Nepal, facilities appeared to have benefited financially from the fee reimbursements intended to replace user fees for delivery while in Ethiopia and Senegal where no government reimbursement was provided for lost fee revenue many facilities have continued to charge fee, despite official policies to the contrary (Laurel E. H. et al. 2013).

4. Results

4.1 Health Care Accessibility

4.1.1 Number of Nearby Health Centers

In rural areas, there is lack of enough health centers both public and private. In the commune where we conducted our survey, the are only 4 government health centers that include the health centers of Gitaza, Muhuta, Rutongo and Mubanga. The figure below indicates that 40% of rural households surveyed have access to 1 health center; 25% households have access 2 health centers, 15.5% have access to 3 health centers while 19.5% have access to 4 health centers where they can get basic health care services.

Table 1: Number of Health Centers

Health Centers	Households	Percent
1	80	40
2	50	25
3	31	15.5
4	39	19.5

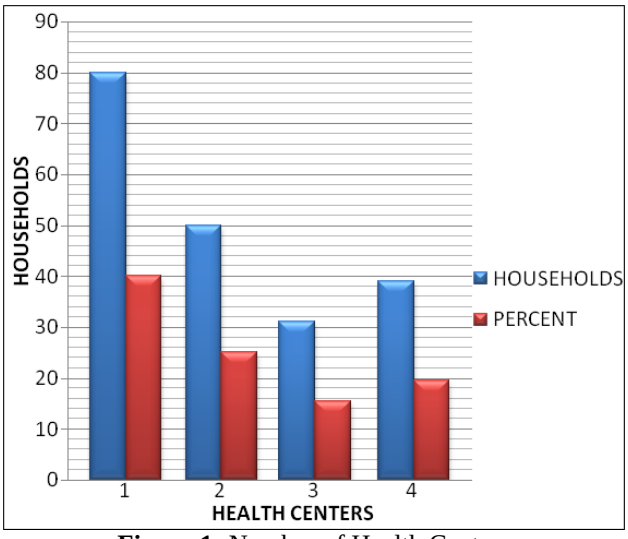

Figure 1: Number of Health Centers
Source: My field research

4.1.1 .1 Accessibility to Health Center

Fee exemptions do not overcome geographic barriers, weak transportation systems, or high transportation costs. Households surveyed are living in hill areas where they have to walk long distance to reach at least a health center or a pharmacy of their choice. There are four government health centers (Gitaza, Mubanga, Muhuta and Rutongo) and two *(operational)* government pharmacies. However, there are government health centers, religious and private health centers and government and private pharmacies in neighboring communes of Kabezi, Mutambu and Bugarama from which households can choose to go to. All households are made of farmers and uneducated or with very low education level. And due to this they are unable to estimate the exact distance they cover by walk to reach a health center or a pharmacy of their choice. The tables and figures below provide only estimates of kilometers from their houses to health center and from health center to their houses.

The results shows that of the 200 households surveyed, 61% have to walk more than 5km to reach and come back from a health center while 39% walk only a distance equal or less than 5km to go and come back from a health center of their choce.

Table 2: Accessibility to Health Center

Distance	*Households*	*Percent*
0- 5 KM	78	39
5-10 KM	80	40
10-15KM	1	0.5
15-20KM	2	1
20-25KM	14	7
25-30KM	21	10.5
30-35KM	1	0.5
35-40KM	1	0.5
40-45KM	0	0
45-50KM	0	0
50-55KM	0	0
55-60KM	2	1

Source: My field research

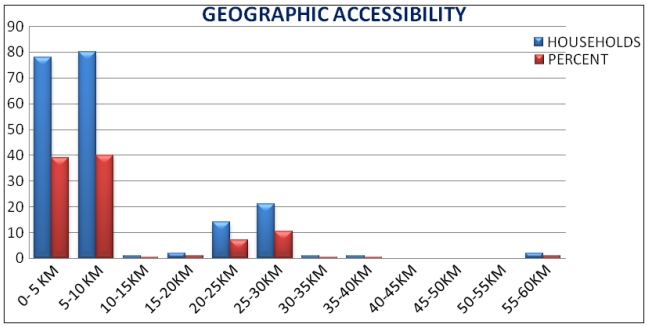

Figure 2: Accessibility to Health Center
Source: My field research

Rural population not only lack enough health centers but also they have to walk long distance for many hours to reach and come back from a health center. Since the households in this hill area have to walk to reach health facilities, we have asked them to estimate how much time they need to reach health center. The table and figure below show that 84% households need 0 to 5 hours to go and come back from a health centers. However, of the 168 households, 36.90% have to walk for about 4 hours while 4.76% walk 5 hours. The majority of these populations (41.66%) neeed 4 to 5 hours to go and come back from a health center; 10.71% walk 3 hours ; 6.54% walk for about 2.5 hours; 8.92%) walk for about 2 hours while 9.52% can walk for about 1.5 hours to reach a health center. And while 15.5% walk between 5 to 10 hours only 0.5% walks between 15 to 20 hours.

Talbe 3: Time to Reach a Health Center

Time	Households	Percent
0-5HRS	168	84
5-10HRS	31	15.5
10-15HRS	0	0
15-20HRS	1	0.5
20-25HRS	0	0
25-30HRS	0	0
30-35HRS	0	0
35-40HRS	0	0
40-45HRS	0	0
45-50HRS	0	0
50-55HRS	0	0
55-60HRS	0	0

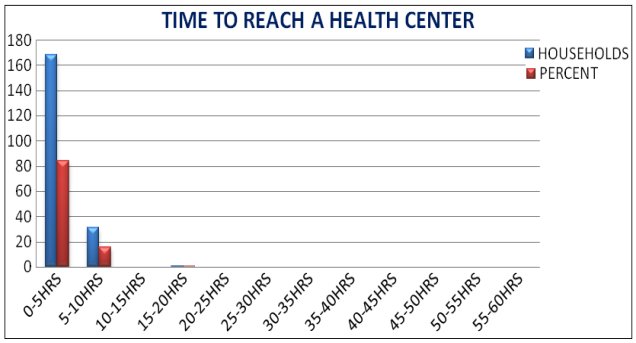

Figure 3: Time To Reach a Health Center
Source: My field research

4.1.2. Accessibility to Pharmacies

4.1.2.1 Number of Pharmacies

For the 4 government health centers that counts the commune of Muhuta, only the health centers of Gitaza and Muhuta have pharmacies. However, there is a regious dispensary which has a pharmacy and frequently used by these popultions and is located at Mutumba in the neighboring commune of Kabezi. The table and figure below indicates that these rural populations have choice from public and private pharmacies. Thus, we have found that 36.5% rural households surveyed have access to 1 nearby pharmacy; 13% have access to 2 pharmacies; 3.5% have access to 3 pharmacies; 25.5% have access to 4 pharmacies; 11% have access to 5 pharmacies; 14 7% have access to 6 pharmacies and 3% have access to 7 pharmacies while 0.5% have access to 8 pharmacies where they can buy prescribed medicines.

Table 4: Number of Pharmacies

Pharmacy	*Households*	*Percent*
1	73	36.5
2	26	13
3	7	3.5
4	51	25.5
5	22	11
6	14	7
7	6	3
8	1	0.5

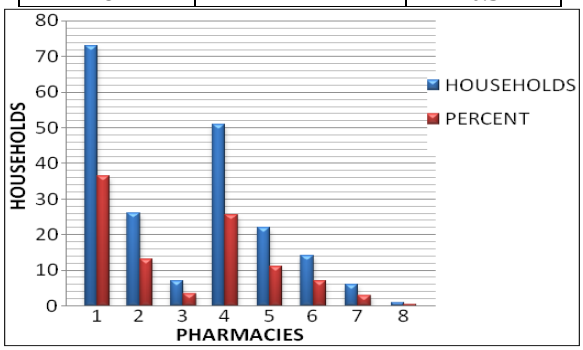

Figure 3: Number of Pharmacies
Source: My field research

4.1.2.2 Distance to Reach a Pharmacy

In our survey, we also wanted to know the distance rural patients have cover in order to reach a pharmacy. The figure below indicates that 69 (34.5%) households walk a distance between 0 to 5km; 72 (36%) walk between 5 to 10km; 8 (4%) walk between 10 to 15km; 12 (6%) walk between 15 to 20km; 14 (7%) walk between 20 to 25km; 23 (11.5%) walk between 25 to 30km; 1(0.5%) walks between 30 to 35km while 1 (0.5%) walk about 40 to 45km to reach a pharmacy. In reality, 131 (65.5%) rural households have to walk some times more than 5 km to reach a pharmacy.

Table 5: Distance to Reach a Pharmacies

Distance	Households	Percent
0-5KM	69	34.5
5-10KM	72	36
10-15KM	8	4
15-20KM	12	6
20-25KM	14	7
25-30KM	23	11.5
30-35KM	1	0.5
35-40KM	0	0
40-45KM	1	0.5
45-50KM	0	0
50-55KM	0	0
55-60KM	0	0

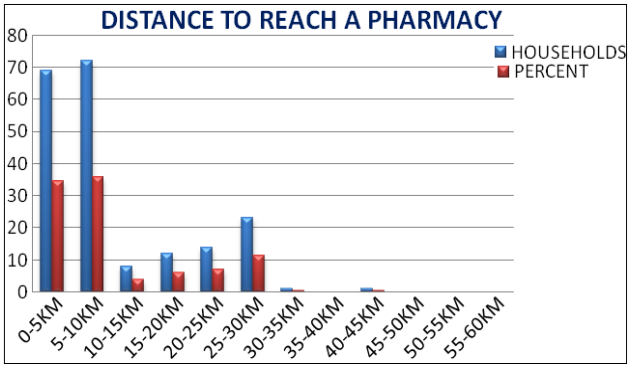

Figure 5: Distance to Reach a Pharmacy
Source: My field research

4.1.2.3 Time to Reach a Pharmacy

We have asked the households we surveyed to estimate the time they have have walk to reach a pharmacy. The figure below indicates that 172 (86%) rural households walk between 0 to 5 hours to reach a pharmacy whereby 72 (78.26%) walk 4 hours and 20 (21.73%) walk 5 hours. This means that 92 (53.48) walk 4 to 5 hours to reach a pharmacy. The figure also indicates that 26 (13%) walk between 5 to 10 hours and 2 (1%) rural households walk between 10 to 15 hours to reach a pharmacy.

Table 6: Time to Reach a Pharmacy

Time	Households	Percent
0-5HRS	172	86
5-10HRS	26	13
10-15HRS	2	1
15-20HRS	0	0
20-25HRS	0	0
25-30HRS	0	0
30-35HRS	0	0
35-40HRS	0	0
40-45HRS	0	0
45-50HRS	0	0
50-55HRS	0	0
55-60HRS	0	0

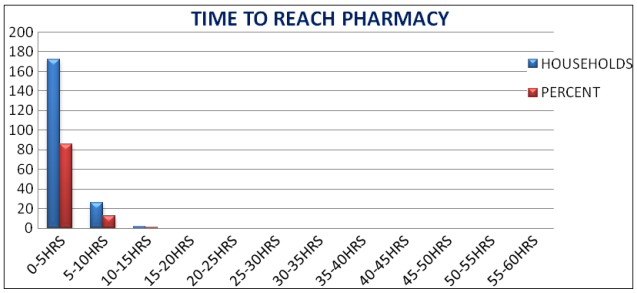

Figure 6: Time to Reach a Pharmacy
Source: My field research

4.2 Quality of Health Care

4.2.1 Curative Consultations and Availability of Medicines

During our study, we wanted to know where rural populations go for medical consultations. The figure below indicates that the majority of patients (74%) go at least to government health centers for their curative consultations. And 68.5% buy their prescribed medicines from private health providers. The results show that of the 200 households surveyed, only 50% trust the quality of curative consultations while others have to consult at least a private health provider; and 20% households buy their prescribed medicines only at government pharmacies. In cases where the medicines is not enough, the household seeks the other portion else where. The poor quality of curative consultations and shortages of drugs in government facilities were common to all our respondents.

Table 7: Curative Consultations And Medicines at Government Health Facilities

Health Center	Households	Percent	Pharmacy	Households	Percent
PUBL HC	100	50	PUB PHARMA	40	20
PRIV HC	31	15.5	PRIV PHARMA	96	48
PRAY RM	2	1	BLACK MARK	1	0.5
CARIT HC	0	0	ASK NEIGHBOR	1	0.5
TRAD DOC	1	0.5	PUB AND PRIV	32	16
ADV NEIG	0	0	PUB AND NEIGH	2	1
PUB AND PRIV	27	13.5	PRIV AND NEIGH	1	0.5
PUB AND PR RM	16	8	BLACK M AND NEIGH	1	0.5
PUB, PRIV, CAR AND PR RM	1	0.5	PRIV AND BLACK M	3	1.5
PUB, PRIV AND TRAD	1	0.5	NOT BUY	23	11.5
PUB, PRAY RM AND TRAD	1	0.5	0	0	0
BUB AND TRAD	2	1	0	0	0
NOT CONSULTED	18	9	0	0	0

PUBL HC=Public health center; PRIV HC= Private health center; PRAY RM= Prayer room; CARIT HC=Caritative health center; TRAD DC= Traditional doctor; ADV NEIG= Advises from neighbor; PUB AND PRIV=Public and private; PUB AND PR RM= Public and prayer room; PUB,PRIV,CAR, AND PR RM= Public, private, caritative and prayer room; PUB, PRAY RM AND TRAD=Public, prayer room and traditional doctor; PUB AND TRAD= Public health center and traditional doctor.

4.2.2 Quality of Diagnosis Services at Local Rural Health Centers

Of the 200 households surveyed, 82% patients were in need of diagnosis services at local rural health centers and 134 of them received these services whereas 30 others could not receive them. We wanted the understand the quality of diagnosis services provided by local health centers from the point of view of uneducated rural patients as users of this health care services. Their views differ as shown in the table 6 below. The results show that 21.95% think that a medical diagnosis is good when the patient is fully healed; 14.63%

patients had no idea about the quality of medical diagnosis they have received; 5.48% say the quality of diagnosis at their local health centers is bad while 39.63% affirmed that the quality of diagnosis is good. However 18.29% patients affirmed that they were not diagnosed due to lack of adequate medical equipments at their local government health centers.

Table 8: Quality of Diagnosis at Government Health Centers

Quality	Patients	Percent
Good	65	39.63
Good When Healed	36	21.95
Bad	9	5.48
No Idea	24	14.63
Not Done	30	18.29

Source: My field research

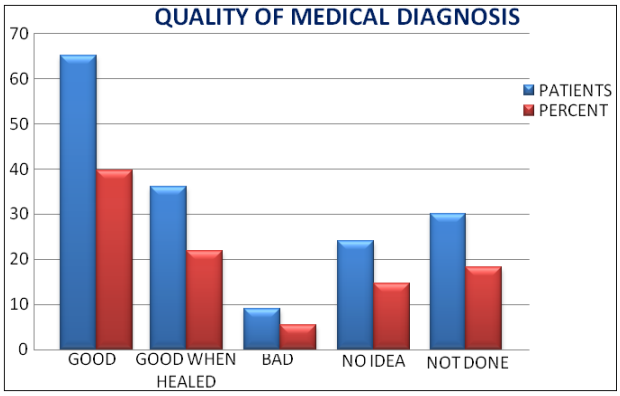

Figure 7: Quality of Medical Diagnosis
Source: My field research

4.2.3 Quality of Medical Prescription

Of the 200 households surveyed and who visited government health centers, 90.5% patients were given medical prescription after curative consultations. And we wanted to know what a good medical prescription looks like in the eyes of uneducated rural populations. The table and figure below indicate that 54,14% have no idea about what a good medical prescription is; 21.54% think that a medical prescription is good when the patient is completely healed while 4.97% think that a good medical prescription is the one which is easily readable by pharmacists; 16.57% patients think that the medical prescriptions they received were bad because they were provided based on common sens of nurses and 2.76% said that the medical prescriptions they received were bad.

Table 9: Quality of Medical Prescription

Quality	Patients	Percent
Good When Healed	39	21.54
Good When Readable	9	4.97
Bad	35	19.33
No Idea	98	54.14

Source: My field research

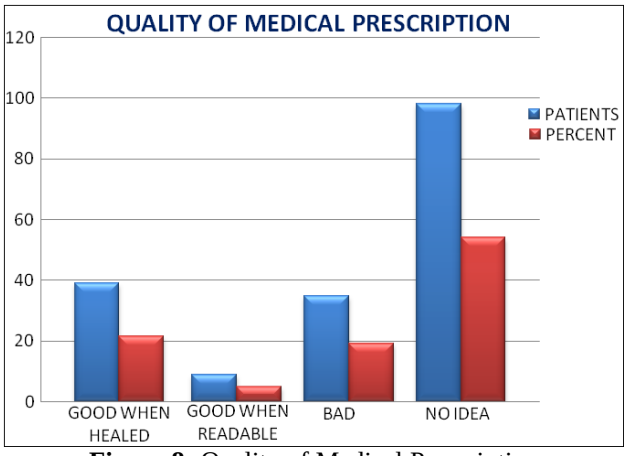

Figure 8: Quality of Medical Prescription
Source: My field research

4.3 User Fees Exemption and Shortages of Drugs

4.3.1 Pharmacy Market Share in Rural Area

All our respondent confirm that medicines are cheaper at public pharmacy than at private pharmacies. However, public pharmacies rarely have all medicines required by patients. And in this case they take different decions on where to buy this medicines from. The figure below indicates that private local pharmacies get the big share of this market whereby 48% of rural patients buy their medicines at private pharmacies and 20% buy at government pharmacies. The results show that only 0.5% patients buys drugs at local black market and 0.5% of rural patients asks the neighbor if he has some remaining medicines in the house for same or similar sickness. However, because medicines are not avaiable on regular basis at public pharmacies, rural households decide to buy from different pharmacies to complete prescribe medicines. Thus, the results of our study show that 16% households buy medicines at both public and private pharmacies ; 1% at public pharmacy and ask the remaining from his neighbor ; 0.5% of patients at private pharmacy and ask the remaining from his neighbor ; 0.5% of patients buy at black market and the reste from his neighbor ; 1.5% buy at private pharmacy and ask the remaing from his neighbor. However, 11.5% households of our respondents prefered not to reveal where they buy their medines which led to question the source of drugs sold by nongovernment pharmacies.

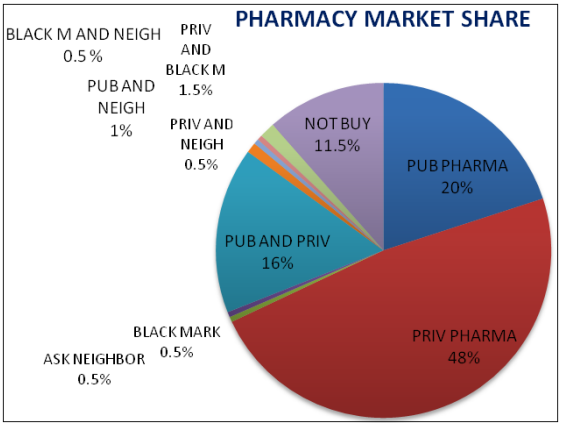

Figure 9: Market Share For Drugs
Source: My field research

4.3.2 Source of Drugs Sold at Local Private Pharmacies

As mentioned in the previous paragraph, 11.5% households of our respondents preferred not to reveal where they buy their medicines. We have asked households we surveyed if they have any idea about the source of drugs sold by local private pharmacies and their responses varied. The government is implementing two health polcies. One is in favor of pregnant women and under-five years children. The government pays subsidies to public and assimulated health facilities that has signed agrements to implement them. However, rural populations think that the recurrent shortages of drugs at rural public pharmacies and the availability of medicines on regular basis at local private pharmacies are closely linked. The table and figure below indicate that 64.5% of households had doubt about where local pharmacists buy the medicines they sell; 15.5% of households think that local rural pharmacists sell medicines sold by local government nurses; 4% households think that they buy their medicines from wholesalers in Bujumbura the capital city. The results also show that 16% of households prefered no to say anything about the source of drugs sold in private pharmacies. In fact, for those who think that local pharmcists buy these medicines from local public health centers and those who say that they have no idea, refer to the fact that after medical consultation and prescription, government nurses indicate the patients which specific pharmacies have the drugs they need and which are not available in government health center's pharmacies.

Table 10: Source of Drugs Sold by Local Private Pharmacies

Source	Households	Percent
Bujumbura	8	4
No Idea	129	64.5
Public H. Centers	31	15.5
Non Response	32	16

Source: My field research

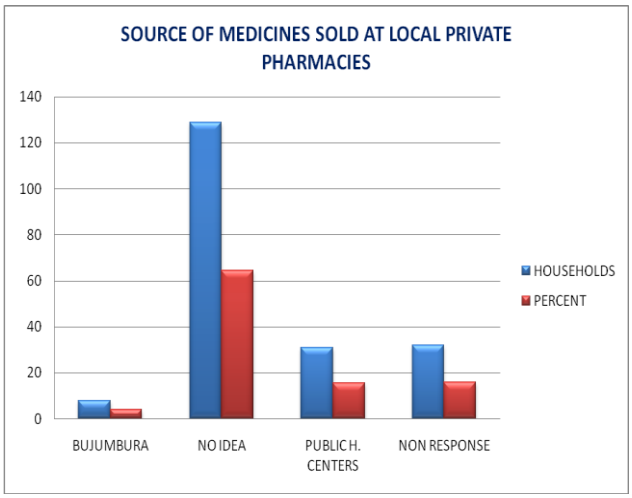

Figure 10: Source of Medicines Sold at Local Private Pharmacies

Source: My field research

PUBLIC H. CENTERS= Public health centers

5. Conclusion

Rural populations have difficulties to access health care mainly due to lack of enough health care facilities and which are unequally distributed. Financial barriers make it difficult to afford the high cost of drugs in the private sector while geographical barriers make patients walk long distances and for many hours in order to reach and come back from health facilities. The poor quality of health care services make these population go seek health care services in the neighboring communes. The behavior of government nurses make rural populations link the recurrent shortages of drugs in government health centers and the possible deals of drugs between the private and public sector. It is difficult to evaluate the quality of curative consultations and medical prescription from the point of view of beneficiaries due to lack of information and lower education levels. In effect, when rural patients are healed they forget about the difficulties they experienced while seeking health care services and the money they have spend. The results show that populations living in hill rural areas have many difficulties to access health care services. These difficulties include geographic and financial barriers due to lack of equity in the distribution of health facilities and poverty; poor quality of health care services at government health centers and higher prices of drugs at private health pharmacies.

6. The Scope for Further Study

1) Geographic barriers make patients walk long distances and for a many hours in order to reach and come back from health facilities. Further studies are needed to explore their negative effects on the health of sick people. It can also help to know the exact distance and time that are needed to reach nearby health centers and pharmacies.
2) Further study is also needed to determine the whether the shortages of drugs in government pharmacies are closely linked to the availability of drugs in nearby local private pharmacies because the results our study show that 64.5% of our respondent doubted the source of these drugs in the private sector.
3) Some nurses purposely make medical prescription unreadable. And some health centers lack the basic medical equipment. Thurs, since uneducated rural population have difficulties to appreciate the quality of medical diagnosis and prescription, further studies are needed to determine their negative effects on the health of rural patients.

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