Financial barriers to HIV treatment in Yaoundé, Cameroon: first results of a national cross-sectional survey

Sylvie Boyer,[a] Fabienne Marcellin,[b] Pierre Ongolo-Zogo,[c] Séverin-Cécile Abega,[d] Robert Nantchouang,[e] Bruno Spire[a] & Jean-Paul Moatti[a]

Objective To assess the extent to which user fees for antiretroviral therapy (ART) represent a financial barrier to access to ART among HIV-positive patients in Yaoundé, Cameroon.

Methods Sociodemographic, economic and clinical data were collected from a random sample of 707 HIV-positive patients followed up in six public hospitals of the capital city (Yaoundé) and its surroundings through face-to-face interviews carried out by trained interviewers independently from medical staff and medical questionnaires filled out by prescribing physicians. Logistic regression models were used to identify factors associated with self-reported financial difficulties in purchasing ART during the previous 3 months.

Findings Of the 532 patients treated with ART at the time of the survey, 20% reported financial difficulty in purchasing their antiretroviral drugs during the previous 3 months. After adjustment for socioeconomic and clinical factors, reports of financial difficulties were significantly associated with lower adherence to ART (odds ratio, OR: 0.24; 95% confidence interval, CI: 0.15–0.40; $P < 0.0001$) and with lower CD4+ lymphocyte (CD4) counts after 6 months of treatment (OR: 2.14; 95% CI: 1.15–3.96 for CD4 counts < 200 cells/µl; $P = 0.04$).

Conclusion Removing a financial barrier to treatment with ART by eliminating user fees at the point of care delivery, as recommended by WHO, could lead to increased adherence to ART and to improved clinical results. New health financing mechanisms based on the public resources of national governments and international donors are needed to attain universal access to drugs and treatment for HIV infection.

Une traduction en français de ce résumé figure à la fin de l'article. Al final del artículo se facilita una traducción al español. الترجمة العربية لهذه الخلاصة في نهاية النص الكامل لهذه المقالة.

Introduction

After the Bamako Initiative, which was launched at a meeting of African ministers of health in Mali in 1987, many developing countries introduced or expanded cost recovery policies by charging patients new or higher user fees at the point of care delivery, since this was recommended as a way to increase health-care funding and improve access to primary health care and public health services.[1] In all sub-Saharan African countries, which pay the highest toll to the AIDS pandemic, more than half of total health expenditures are borne by households in the form of direct out-of-pocket payments at the point of service delivery.[2,3] Increasing empirical evidence suggests, however, that the persistence of user fees for antiretroviral therapy (ART) and HIV/AIDS care decreases adherence[4–8] and treatment effectiveness.[9] Other evidence also highlights that user fees undermine both access for the poor and the equity of ART programmes, even when associated with subsidizing schemes and exemption mechanisms targeted at the poorest sectors of the population.[10] WHO's public health approach for scaling up access to treatment for HIV/AIDS in developing countries has explicitly endorsed the provision of "free-of-charge ART at the point of delivery" as a key component for reaching the goal of universal access to HIV/AIDS care and treatment by 2010.[11]

Cameroon has initiated one of the most dynamic ART programmes in Africa, with more than 55 000 HIV-positive patients benefiting from ART in June 2008. This figure represented about 58% of the estimated number of patients in the country requiring ART.[12] Until May 2007, treated patients had to pay user fees for ART as well as for laboratory tests and physicians' consultations, even though 40% of the population lived under the poverty line.[13,14]

Data from the first phase of the national survey EVAL (ANRS 12–116) allowed us to assess the extent to which user fees created a financial barrier for access to care among ART-treated HIV-positive patients in Yaoundé, the capital of Cameroon.

Methods

Setting

The Cameroonian health-care sector includes the public and private (lucrative and non-lucrative) sectors and a traditional sector. Following the recommendations of the Conference of Harare on strengthening district health systems based on

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a INSERM / IRD U912 (SE4S), Université Aix Marseille, 23 rue Stanislas Torrents, 13006, Marseille, France.
b ORS-PACA, Observatoire Régional de la Santé Provence Alpes Côte d'Azur, Marseille, France.
c Ministry of Public Health, Division of Health Operations Research, Yaoundé, Cameroon.
d Socio-anthropological Research Institute, Catholic University of Central African States, Yaoundé, Cameroon.
e Social Integration Research and Study Group, Catholic University of Central African States, Yaoundé, Cameroon.
Correspondence to Sylvie Boyer (e-mail: sylvie.boyer@inserm.fr).

primary care (1987), the government adopted a three-level pyramidal healthcare model with health districts as the cornerstone. Cameroon also agreed to the above-mentioned Bamako Initiative in 1987 and by the beginning of the 1990s, fees for inpatient and outpatient services, drugs and biological tests were being charged in all health-care facilities.[15]

Monthly ART prices were established for all HIV treatment centres until May 2007 at 3000 *francs de la communauté financière africaine* (FCFA), or about 6 United States dollars (US$), for Triomune®, and 7000 FCFA, or about 14 US$, for other treatments (at 1 US$ = 492.6 FCFA). The price for an initial biological check-up and bi-annual biological monitoring, including CD4 count, was established at 3000 FCFA.[16] Amounts for other services, such as medical consultations, drugs for opportunistic infections and hospitalization, were fixed by each health-care provider irrespective of a patients' socioeconomic status.

In addition, patients who were identified as "indigent" could be exempted from user fees for ART, up to a maximum of 10% of patients in each HIV-treatment centre. In practice, however, assessment of indigence, which social workers carried out on the basis of occupation, marital status, number of dependants and availability of financial support from a family member, was not completely standardized between health-care facilities.

Study design

EVAL (ANRS 12–116) is a national cross-sectional multicentre survey funded by the French National Agency for Research on AIDS and Viral Hepatitis and approved by the Ministry of Public Health in Cameroon and the Cameroonian National Ethics Committee. The first phase of the survey was undertaken between the 7 September and 20 October 2006 in six public hospitals (five national reference and one district hospital) which deliver HIV/AIDS care and ART in Yaoundé and its surroundings. Eligibility criteria included being over 21 years of age and having been diagnosed as HIV-positive at least 3 months earlier. In each hospital, survey participants were randomly selected among eligible patients, and refusals to participate were recorded.

Patients who agreed to participate had to complete a written informed consent form and were referred to a trained interviewer after their clinic visit. At the end of a 45-minute interview, a blood sample was collected for a CD4 count.

Data collection

Clinical data, including type of ART regimens prescribed and immunological status (CD4 counts) at ART initiation, were obtained from medical files by care providers. During face-to-face interviews, information was obtained from patients on sociodemographic and economic characteristics, disease history, treatments and medical follow-up, adherence to ART, detailed health care expenditures over the previous month and occupational status.

Financial difficulties in purchasing ART were assessed with the question: "During the last 3 months, were you ever unable to buy your HIV medicines because of lack of money?" Adherence to ART was measured through a validated list of questions[17,18] about the doses taken and compliance with the dosing schedule during the prior 4 days. This allowed us to compute scores for "high", "moderate" and "low" adherence to ARV drugs; for the multivariate analysis, adherence scores were dichotomized into two categories: high and moderate/low.

Statistical analysis

The present analysis was focused only on the subsample of patients who were on ART at the time of the survey (study population). However, we applied the χ^2 or Fisher test to compare their sociodemographic characteristics with those of patients eligible for ART who did not effectively have access to the treatment.

Logistic regression was used to identify the sociodemographic, economic and clinical factors associated with self-reported financial difficulties in purchasing ART. All variables that yielded a *P*-value lower than 0.25 in the univariate analysis were tested in the multivariate model. A forward selection procedure was used to identify statistically significant factors in the multivariate model ($\alpha = 0.05$). The model obtained was re-run after introducing the CD4 count at the last assessment and adherence to ART to test for an association between these two outcomes and patients' self-

reported financial difficulties, after adjustment for potential confounding factors. SPSS software, version 14.0 for Windows (SPSS Inc., Chicago, IL, United States of America) was used for all analyses.

Results

Characteristics of the study population

A total of 843 HIV-positive patients were randomly selected among eligible patients who attended the six public hospitals during the survey period, and 707 of them agreed to participate in the survey (response rate, 83.9%). No significant differences were found between participants and non-participants except for median CD4 counts (participants: 315 cells/µl; non-participants: 212 cells/µl: Mann-Whitney test, $P < 0.0001$) and transportation time to the hospital (< 1 hour for 72.6% of participants versus 22.9% for non-participants; χ^2 test, $P < 0.0001$).

Among the 707 participants, 532 (75.2%) were on ART at the time of the survey. Of the non-treated patients, 73 (41.7%) fulfilled the clinical and immunological criteria for ART according to existing guidelines in Cameroon. ART-treated patients had significantly higher sociocultural status than patients who were not treated even though they were eligible for treatment at the time of the survey, both in terms of education and living conditions: 77.2% had a high school or university education versus 67.1% of non-ART-treated eligible patients ($P = 0.05$), and 41.9% had tap water at home versus only 26.0% of non-ART-treated patients ($P = 0.009$).

As shown in Table 1, the average age of ART-treated patients was 38 years, and 90.8% of them lived in urban or semi-urban areas. More than two-thirds were women, half reported living in a stable relationship, and nearly two-thirds reported being economically active. The median household monthly income was 63 000 FCFA (128 US$) (interquartile range, IQR: 40 000–116 600 FCFA or 81–237 US$); thus, 54.0% of study patients lived under the poverty line.[13,14,19] The average time since ART initiation was 19 months, and half the patients received the generic antiretroviral combination Triomune®.[20]

Research
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Table 1. **Factors associated with self-reported financial difficulty in purchasing ART over the past 3 months among ART-treated HIV-positive patients in Yaoundé, Cameroon, 2006**

Variable	All patients (*n* = 532)	Financial difficulties in purchasing ART		Univariate models		Multivariate model	
		Yes (*n* = 107)	No (*n* = 425)				
		Patients		OR (95% CI)	*P*-value	OR (95% CI)	*P*-value
Sociodemographic and economic characteristics							
Gender							
Female[a] (%)	70.9	72.0	70.6	1	0.78	NA	NA
Male (%)	29.1	28.0	29.4	0.93 (0.58–1.50)			
Age[b] (years)							
Mean (SD)	38 (9)	36 (8)	39 (9)	0.68 (0.53–0.88)	0.003	0.63 (0.48–0.83)	0.001
Place of residence							
Urban or semi-urban[a] (%)	90.8	90.7	90.8	1	0.96	NA	NA
Rural (%)	9.2	9.3	9.2	1.02 (0.49–2.12)			
Water supply							
Tap or mineral water[a] (%)	42.7	30.8	45.7	1	0.04	NS	NS
Public tap, fitted well, bored well with pump (%)	26.3	29.0	25.6	1.67 (0.97–2.88)			
Purchase (%)	25.2	32.7	23.3	2.08 (1.22–3.54)			
Unfitted well or spring (%)	5.8	7.5	5.4	2.04 (0.84–4.95)			
Educational level							
Primary school[a] (%)	22.7	29.9	20.9	1	0.12	NS	NS
High school (%)	63.0	58.0	64.3	0.63 (0.39–1.03)			
University (%)	14.3	12.1	14.8	0.57 (0.28–1.18)			
Stable relationship							
No[a] (%)	46.4	43.0	47.3	1	0.42	NA	NA
Yes (%)	53.6	57.0	52.7	1.19 (0.78–1.82)			
Relationship with head of household							
Patient is head or head's spouse or sibling[a] (%)	84.0	90.0	82.6	1	0.07	1	0.006
Patient is head's child (%)	16.0	10.0	17.4	0.54 (0.28–1.06)		0.37 (0.18–0.74)	
Employment status							
Inactive[a] (%)	37.8	36.4	38.1	1	0.75	NA	NA
Active (%)	62.2	63.6	61.9	1.07 (0.69–1.67)			
Adults in the household							
Median (IQR)	3 (2–4)	3 (2–4)	3 (2–4)	1.02 (0.95–1.10)	0.54	NA	NA
Children in the household							
Median (IQR)	2 (1–4)	2 (1–4)	2 (1–4)	1.03 (0.94–1.12)	0.52	NA	NA
Persons contributing to the household income							
Median (IQR)	1 (1–2)	1 (1–2)	1 (1–2)	0.85 (0.53–1.37)	0.51	NA	NA
Monthly household income[c] (US$)							
Median (IQR)	128 (81–237)	102 (61–162)	142 (87–305)	0.35 (0.20–0.60)	< 0.0001	0.34 (0.19–0.60)	< 0.0001
Previous month's health expenditures[c] (US$)							
Median (IQR)	20 (13–39)	18 (14–37)	20 (12–39)	0.92 (0.55–1.53)	0.74	NA	NA
Loans or help from family to pay for previous month's health expenditures							
No[a] (%)	60.2	57.9	60.7	1	0.60	NA	NA
Yes (%)	39.8	42.1	39.3	1.12 (0.73–1.72)			

(Table 1, cont.)

Variable	All patients (n = 532)	Financial difficulties in purchasing ART		Univariate models		Multivariate model	
		Yes (n = 107)	No (n = 425)				
		Patients		OR (95% CI)	P-value	OR (95% CI)	P-value
Regular help to pay ART							
None[a] (%)	53.0	60.8	51.1	1	0.17	NS	NS
Some (%)	42.5	36.4	44.0	0.70 (0.45–1.08)			
Free HIV treatment (%)	4.5	2.8	4.9	0.48 (0.14–1.65)			
Clinical and HIV-related characteristics							
Type of ART							
Triomune® [a] (%)	48.7	43.0	50.1	1	0.19	NS	NS
Others (%)	51.3	57.0	49.9	1.33 (0.87–2.04)			
Time since HIV diagnosis (months)							
Mean (SD)	28 (23)	30 (21)	28 (23)	1.00 (1.00–1.01)	0.27	NA	NA
Time since ART initiation (months)							
Mean (SD)	19 (18)	21 (17)	19 (18)	1.01 (1.00–1.02)	0.17	NS	NS
Hospitalizations during the previous 6 months							
None[a] (%)	88.7	84.1	89.9	1	0.09	NS	NS
At least one (%)	11.3	15.9	10.1	1.68 (0.91–3.08)			
CD4 count at ART initiation (cells/μl)							
≥ 200 (%)	15.8	15.0	16.0	1			
< 200 (%)	84.2	85.0	84.0	1.08 (0.60–1.96)	0.79	NA	NA
History of AIDS-defining events							
No[a] (%)	70.3	74.8	69.2	1	0.26	NA	NA
Yes (%)	29.7	25.2	30.8	0.76 (0.47–1.23)			
Use of sulfamethoxazole and trimethoprim							
No[a] (%)	62.0	60.7	62.4	1	0.76	NA	NA
Yes (%)	38.0	39.3	37.6	1.07 (0.69–1.65)			
Use of anti-TB drugs							
No[a] (%)	95.1	93.5	95.5	1	0.37	NA	NA
Yes (%)	4.9	6.5	4.5	1.50 (0.61–3.66)			

ART, antiretroviral therapy; CD4, CD4+ lymphocyte; CI, confidence interval; IQR, interquartile range; NA, not applicable; variable not introduced in the initial multivariate model; NS, not significant in multivariate analysis; OR, odds ratio; SD, standard deviation; TB, tuberculosis.

[a] Reference category for logistic regression models.

[b] OR for a 10-year increment.

[c] OR for an increase of 1 $\log_{10}$.

Patients' health-care expenditures

The median monthly direct out-of-pocket health expenditure of ART-treated patients was 9800 FCFA (IQR: 6300–18 600), or 20 US$ (IQR: 13–38). Of this amount, 3000 FCFA (IQR: 3000–7000), or 6 US$ (IQR: 6–14), went mainly to the purchase of ART; 1000 FCFA (IQR: 600–2,000), or 2 US$ (IQR: 1–4), went to transportation costs to the hospitals, and 1600 FCFA (IQR: 0–3,000), or 3 US$ (IQR: 0–6), went to health-care professionals' consulting fees. These amounts comprised 47.0%, 12.0% and 6.0% of the total expenditure, respectively. Other expenditures went to medication other than ART, biological tests, hospitalization and traditional medicine.

Of all households, 40.4% faced monthly catastrophic health expenditures, defined as expenditures representing at least 20% of the household's total monthly income.[21] Dependence on loans or financial help from sources outside the household to pay for the previous month's health expenditures was also reported by 39.8%.

Financial difficulty in purchasing ART

Financial difficulty in purchasing ART during the previous 3 months was reported by 20.1% (107) of ART-treated patients. For all these patients, irrespective of follow-up hospital, the largest

proportion of health-care expenditures went to the purchase of ART (median range: 37.2–71.4%).

Patients who faced financial difficulty in purchasing ART were significantly younger than other ART-treated patients (Table 1, univariate models). They also had a significantly lower average household income, and health expenditures comprised a larger proportion of their income (19.1% versus 13.1%, $P < 0.0001$). Univariate analyses also showed that sons or daughters of the head of the household faced less financial difficulty in purchasing ART than the head of the household, his/her spouse or his/her sibling.

These results were confirmed in the multivariate model (Table 1).

Adherence to ART and immunological response

Good adherence to ART during the 4 days before the interview was found in 56.6% of ART-treated patients. Patients who reported financial difficulties in purchasing ART were significantly less likely to have good adherence than those who did not (29.9% versus 63.4%; $P < 0.0001$). They were also significantly more likely to have a CD4 count < 200 cells/μl at the time of the survey (29.0% of patients versus 18.8% of patients without financial difficulties: $P = 0.02$). No significant difference was found in CD4 count at ART initiation. A multivariate analysis adjusted for patients' socioeconomic characteristics confirmed these two relationships (Table 2).

Discussion

Clinical outcomes

Even though antiretroviral drugs are commonly subsidized within the public sector in African countries to make them affordable for patients, user fees for ART are still charged in many of these countries. Increasing evidence from HIV/AIDS treatment programmes in Africa shows that user fees and cost recovery policies put HIV/AIDS treatment beyond the reach of an overwhelming majority of affected households.[10,11] In addition, literature reviews on empirical evidence gathered since the 1980s clearly show that problems of sustainability, efficiency and equity faced by public health systems in developing countries have persisted and often worsened after the introduction of user fees.[22,23]

Table 2. **Association between self-reported financial difficulty in buying ART during the previous 3 months and (i) adherence to ART and (ii) last CD4 count among ART-treated HIV-positive patients ($n = 532$) in Yaoundé, Cameroon, 2006**

Variable	OR	95% CI	P-value
Age[a]	0.63	0.47–0.85	0.002
Relationship with head of household			
Patient is head or head's spouse or sibling[b]	1		0.03
Patient is head's child	0.45	0.21–0.95	
Monthly household income[c]	0.30	0.17–0.55	< 0.0001
Adherence to ART			
Moderate/low[b]	1		< 0.0001
High	0.24	0.15–0.40	
CD4 count at last assessment			
≥ 200 cells/μl[b]	1		0.04
< 200 cells/μl and < 6 months on ART	0.89	0.36–2.23	
< 200 cells/μl and > 6 months on ART	2.14	1.15–3.96	

ART, antiretroviral therapy; CD4, CD4+ lymphocyte; CI, confidence interval; OR, odds ratio (multivariate logistic regression model).
[a] OR for a 10-year increment.
[b] Reference category.
[c] OR for an increase of 1 $\log_{10}$.

The HIV/AIDS care subsidizing policy developed by the Cameroonian government and sustained financially by the Global Fund has allowed an increasing number of HIV-positive patients to receive ART. However, the results of our survey confirm that user fees for ART remained a major barrier to delivery of appropriate HIV treatment for significant segments of the population.[24,25] Indeed, one out of five ART-treated patients reported not having purchased antiretrovirals at least once during the previous 3 months because of lack of money. Moreover, multivariate analysis, while not intended to demonstrate any causal relationship, showed a correlation between non-adherence to ART, reduced immunological response to treatment and financial difficulties in purchasing ART, even after adjustment for confounders. These findings from a representative sample of patients confirm the results of pilot programmes.[5,7,8,26]

Survey limitations

Evidence from our survey remains limited to Yaoundé, one of the two most prosperous areas of Cameroon, and its immediate surroundings. The effect of user fees on ART is probably greater elsewhere, although this requires confirmation through studies at the national level. ART-treated patients in our sample tended to have higher sociocultural and economic status than members of the general population of the same age and gender living in Yaoundé (data not shown).[27] Caution should be exercised, however, when drawing conclusions from this in terms of equity in access to care, since epidemiological evidence suggests that more educated groups in Cameroon have a higher prevalence of HIV infection.[27] Nonetheless, in this sample of patients living with HIV/AIDS who knew of their positive serostatus and had sought HIV/AIDS care, the few who were eligible for ART (circa 10.3%) but did not have effective access to it had a significantly lower socioeconomic status than those who received ART.

Another limitation of our survey is that the use of a single question and self-report to assess patients' financial difficulties may have introduced a social desirability bias. However, observed correlation between declarations and lower income levels and detailed documentation of health-care expenditures suggest that real difficulties faced by patients were captured at least to some extent.

Barriers to accessing ART

In our sample, the comparison of patients who received ART with those who did not receive it despite being eligible for it showed that the latter face greater financial barriers. Qualitative

interviews conducted in parallel with this survey have also revealed mechanisms through which financial barriers may limit access to ART among medically eligible patients. One such barrier involves the out-of-pocket payments required for biological tests to determine eligibility for ART. Once patients overcome this, effective initiation of ART is then decided by a "therapeutic committee", composed of caregivers and social workers, who take into account a set of clinical and biological eligibility criteria as well as the "socio-economic capacity" of patients to comply with prescribed regimens. At the time of the survey, when Global Fund money for providing ART free of charge had been exhausted, a patient clinically and biologically eligible for ART could be denied it because of insufficient financial resources to sustain it in the long term.

Free access to HIV/AIDS care

Following the examples of Brazil and Senegal, other countries, including the Congo, Ethiopia, Kenya, Nigeria and the United Republic of Tanzania, have recently adopted universal free access to ART in the public sector.[10] Research in Benin,[28] Malawi[29] and the United Republic of Tanzania[30] has highlighted that a free HIV/AIDS care package has led to a dramatic increase in HIV testing and treatment uptake.

In April 2007, following these experiments and the preliminary results of the ongoing evaluation of its national AIDS programme, the Government of Cameroon adopted a policy of free access to ART at the point of delivery. Although this is an important step towards the goal of universal access to HIV/AIDS care and treatment, it is not enough to resolve all financial difficulties for ART-treated patients. In our sample, ART-treated patients still devoted a median of 4000 FCFA (8 US$) per month to non-antiretroviral drugs. This means that even with free antiretrovirals, about one-quarter of ART-treated patients in Yaoundé will still face catastrophic health-care expenditures. By repeating this cross-sectional survey in the near future, we will be able to measure the effect of the free

ART policy in Cameroon on treatment adherence and effectiveness.

Our results strongly support WHO's recommended policy of free access to HIV/AIDS care and treatment at the point of delivery[11]; they have, in fact, already contributed to a major change in pricing policy in Cameroon. However, governments and policy-makers may harbour legitimate concerns about free treatment and care policies for patients with HIV. One such concern has to do with the loss of resources for health care and the uncertain sustainability of funding for ART programmes. Abolishing user fees would certainly lead to some loss of resources for HIV programmes. In Senegal, for instance, the average monthly direct contribution per capita in 2006 ranged from US$ 7 to 11.30. Yet the total of such contributions comprised less than 10% of the entire budget of the national ART programme.[31] Furthermore, these resource losses will be partly offset by the decrease of administrative costs previously devoted to cost recovery and by savings due to improved adherence and treatment outcomes.

One should note, however, that abolishing user fees may mean higher "opportunity costs" for national and local decision-makers. In most sub-Saharan countries, more than half of total expenditures for HIV/AIDS care and 70% of the cost of ART programmes come from foreign sources.[32] National authorities may not favour free care policies that could lead to long-term dependence on external donors. Because more than 80% of HIV-positive persons in sub-Saharan Africa are estimated to be unaware of their own serostatus, there are pressing calls to scale up HIV testing and counselling to increase treatment uptake.[33–35] In this context, governments may see user fees as a means for dealing with increased demand, since the available infrastructure and human resources are often far less than those needed to deliver appropriate treatment.

The policy of abolishing user fees also calls for a revision of existing health financing models. One interesting experimental scheme to implement free HIV/AIDS care would be to create a

"purchase fund", financed by donors and national governments, that would reimburse HIV/AIDS care providers based on invoices for their care. According to a study conducted for the Senegalese government, this would be technically feasible and financially sustainable.[36]

Another concern surrounds the potential effect of providing free HIV/AIDS care on access to all essential health services for the whole population, especially for the poor. Eventually, free HIV/AIDS care policy and new models of financing could be extended to priority care or prevention activities for other diseases.

Conclusion

Attainment of the goal of universal access to HIV/AIDS care appears to depend, among other factors, on successful implementation of a free care policy at the point of service delivery. The epidemic of HIV infection creates an opportunity to implement new financing mechanisms for health care with the public resources of national governments and funds from international donors,[37] a step that is necessary to bring effective ART and appropriate care to HIV-positive individuals in low-resource countries. ■

Résumé

Obstacles financiers au traitement contre le VIH à Yaoundé, au Cameroun : premiers résultats d'une enquête transversale à l'échelle nationale

Objectif Evaluer dans quelle mesure la participation financière réglée par les usagers pour bénéficier du traitement antirétroviral (ART) représente un obstacle financier à l'accès à ce traitement pour les personnes positives pour le VIH à Yaoundé, au Cameroun.

Méthodes Des données sociodémographiques, économiques et cliniques ont été recueillies parmi un échantillon aléatoire de 707 individus séropositifs pour le VIH, suivis dans six hôpitaux publics de la capitale du Cameroun (Yaoundé) ou de ses environs, à travers des entretiens face-à-face menés par des enquêteurs formés et indépendants du personnel médical et à travers des questionnaires médicaux remplis par les médecins prescripteurs. Des modèles de régression logistique ont été utilisés pour identifier les facteurs associés au signalement spontané par les sujets de difficultés financières pour se procurer les médicaments ART au cours des 3 derniers mois.

Résultats Parmi les 532 patients prenant un traitement ART au moment de l'enquête, 20 % ont signalé des difficultés financières pour se procurer les médicaments antirétroviraux au cours des 3 derniers mois. Après ajustement pour les facteurs socioéconomiques et cliniques, on a constaté une association significative entre le signalement de difficultés financières et une faible observance du traitement ART (odds ratio, OR : 0,24 ; intervalle de confiance à 95 %, IC : 0,15-0,40 ; p < 0,0001) et entre ce signalement et une numération plus basse des lymphocytes CD4+ (CD4) après 6 mois de traitement (OR : 2;14 , IC à 95 % : 1,15-3,96 pour les numérations des CD4 < 200 cellules/µl ; p = 0,04).

Conclusion L'élimination de l'obstacle financier au traitement antirétroval que constitue la participation financière des usagers au point de délivrance des soins, comme le recommande l'OMS, pourrait apporter une amélioration de l'observance du traitement et des résultats cliniques. De nouveaux mécanismes financiers reposant sur les ressources publiques des gouvernements nationaux et sur les apports de donateurs internationaux sont nécessaires pour obtenir un accès universel aux médicaments et au traitement contre l'infection par le VIH.

Resumen

Barreras financieras al tratamiento de la infección por VIH en Yaundé, Camerún: primeros resultados de una encuesta transversal nacional

Objetivo Evaluar en qué medida los honorarios cobrados a los usuarios por el tratamiento antirretroviral (TAR) representan una barrera financiera para acceder a dicha terapia entre los pacientes VIH-positivos en Yaundé, Camerún.

Métodos Se reunieron datos sociodemográficos, económicos y clínicos a partir de una muestra aleatoria de 707 pacientes VIH-positivos sometidos a seguimiento en seis hospitales públicos de la capital (Yaundé) y sus alrededores mediante entrevistas personales llevadas a cabo por encuestadores debidamente preparados independientes del personal médico y cuestionarios médicos rellenados por los facultativos que recetaban los medicamentos. Se utilizaron modelos de regresión logística para determinar los factores asociados a las dificultades financieras declaradas por los propios pacientes para adquirir TAR durante los 3 meses anteriores.

Resultados De los 532 pacientes que recibían TAR en el momento de la encuesta, un 20% declararon haber tenido problemas económicos para adquirir la medicación antirretroviral en los 3 meses anteriores. Tras los ajustes pertinentes en función de factores socioeconómicos y clínicos, las referencias a problemas económicos se asociaron de forma significativa a un menor seguimiento del TAR (razón de posibilidades, OR: 0,24; intervalo de confianza [IC] del 95%: 0,15-0,40; p < 0,0001) y a recuentos más bajos de los linfocitos CD4+ (CD4) a los 6 meses de tratamiento (OR: 2,14; IC95%: 1,15–3,96 para los recuentos de CD4 < 200 células/µl; p = 0,04).

Conclusión La supresión de las trabas financieras al tratamiento con antirretrovirales mediante la eliminación de los honorarios cobrados a los usuarios en los puntos de atención sanitaria, de acuerdo con las recomendaciones de la OMS, podría traducirse en un mayor cumplimiento del TAR y unos resultados clínicos mejores. Se necesitan nuevos mecanismos de financiación sanitaria basados en los recursos públicos de los gobiernos nacionales y los donantes internacionales para garantizar el acceso universal a los medicamentos y el tratamiento que requiere la infección por VIH.

ملخص

العوائق المالية أمام معالجة الإيدز في ياوندي، الكاميرون النتائج الأولى لمسح وطني مستعرض للقطاعات

الهدف: تقييم مدى ما تمثّله الرسوم التي يدفعها من يستخدم المعالجة بالأدوية المضادة للفيروسات القهقرية من عوائق مالية أمام إتاحة تلك المعالجة للمرضى الإيجابيين لفيروس العوز المناعي البشري في ياوندي، الكاميرون.

الطريقة: جمعت المعطيات السريرية والاقتصادية والاجتماعية والديمغرافية من نموذج عشوائي يتألف من 707 مريضاً إيجابياً لفيروس العوز المناعي البشري من ستة مستشفيات تتبع القطاع العام في العاصمة ياوندي وما يحيط بها، وذلك من خلال مقابلات شخصية نفّذها أطباء مستقلون مدربون على المقابلات، مع استخدام استبيانات طبية استكملها الأطباء الذين وصفوا المعالجات الدوائية. واستخدم نموذج التحوّف اللوجستي للتعرف على العوامل التي رافقت الصعوبات المالية والإبلاغ الذاتي عنها في شراء المعالجة بالأدوية المضادة للفيروسات القهقرية أثناء الأشهر الثلاثة المنصرمة.

الموجودات: من بين 532 مريضاً عولجوا بالأدوية المضادة للفيروسات القهقرية وقت إجراء المسح أبلغ 20% منهم عن الصعوبة المالية في شراء تلك الأدوية خلال الأشهر الثلاثة المنصرمة. وبعد تعديل العوامل السريرية والاجتماعية والاقتصادية لوحظ أن البلاغات عن الصعوبات المالية ترافقت إلى حدٍ يُعتدُّ به

للفيروسات القهقرية بالتخلُّص من الرسوم التي يدفعها المستخدمون لها في منافذ إيتاء الرعاية، وفقاً لتوصيَّات منظمة الصحة العالمية، قد تؤدي إلى زيادة الامتثال للمعالجة بالأدوية المضادة للفيروسات القهقرية، وإلى تحسُّن النتائج السريرية. وتمس الحاجة إلى آليات جديدة للتمويل الصحي الذي يرتكز على الموارد العامة للحكومات الوطنية والوكالات الدولية المانحة للوصول إلى إتاحة شاملة للأدوية ولمعالجة العدوى بفيروس العوز المناعي البشري.

إحصائياً مع امتثال ضعيف للمعالجة بالأدوية المضادة للفيروسات القهقرية (معدَّل الأرجحية 0.24، وفاصلة الثقة 95%، 0.40-0.15، وقيمة الاحتمال P يقلّ عن 0.0001)، كما ترافقت مع تعداد منخفض للمفاويات CD4$^+$ بعد مضي ستة شهور على المعالجة (معدَّل الأرجحية: 2.14، وفاصلة الثقة 95%: 3.96-1.15 لتعداد اللمفاويات الذي يقل عن 200 لمفاوية لكل مكرولتر، وبقيمة احتمال P = 0.04).

الاستنتاج: إن التخلص من العوائق المالية أمام المعالجة بالأدوية المضادة

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