Rev Saúde Pública 2013;47(1) Original Articles Public Health Practice

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Received: 12/13/2011 Approved: 7/8/2012

Article available from: www.scielo.br/rsp

Assessment of outpatient services for AIDS patients, Brazil: comparative study 2001/2007

ABSTRACT

OBJECTIVE: To assess Brazilian Unified Health System outpatient services delivering care to adults living with AIDS in 2007 and to compare with the assessment conducted in 2001.

METHODS: The 636 health services registered in the Ministry of Health in 2007 were invited to respond to a previously validated questionnaire (*Qualiaids* Questionnaire) with 107 multiple-choice questions about the organization of care delivery. It analyzed the frequencies of responses to the 2007 questionnaire compared with those found in that of 2001 through percent variation (PV).

RESULTS: 504 (79.2%) of the services responded to the questionnaire. Almost 100.0% of the respondents reported having essential resources for outpatient care: having at least one doctor, sufficient supplies of antiretroviral drugs, CD4 and viral load tests. Many aspects displayed improvement in 2007 compared to 2001: registry of missed medical appointments (from 18.3 to 27.0%, PV: 47.5%), follow-up appointment within 15 days of starting antiretroviral treatment (from 55.3 to 66.2%, PV: 19.7%) and user's organized participation (from 5.9 to 16.7%, PV: 183.1%). However, some difficulties remained: little change in the availability of specialized exams, such as endoscopy, within 15 days, (31.9 to 34.5%, PV: 8.1%) and decreases in indicators such as optimal time access to specialized appointments (55.9 to 34.5% in cardiology, negative PV: 38.3%). Mean time spent in follow-up medical appointments remained low: about 15 minutes (52.5 to 49.5%, negative PV: 5.8%).

CONCLUSIONS: The 2007 assessment revealed that services have essential resources for ambulatory assistance. There was some improvement in many aspects compared to 2001, although some challenges still remain. Little time dedicated to medical appointments may be linked to insufficient number of doctors and/or due to reduced capacity of listening and dialogue. Impaired access to specialized appointments reveals the difficulty local Brazilian Unified Health System facilities have regarding infrastructure.

DESCRIPTORS: Acquired Immunodeficiency Syndrome, therapy. HIV Infections. Ambulatory Care. Brazilian Unified Health System. Health Services Research.

INTRODUCTION

Outpatient care for those living with HIV in Brazil takes place in different health care sites of the SUS (Brazilian Unified Health System): primary care units, specialized outpatient clinics, hospital outpatient services and sites dedicated to sexually transmitted diseases (STD) and AIDS. The Ministry of Health, through the Department of STD/AIDS and Viral Hepatitis produces general guidelines for the services and is responsible for providing antiretroviral drugs and specific laboratory tests (viral load, CD4, genotyping). Apart from these resources, the implementation and organization of services depends on regional and local characteristics of the SUS.

Local-regional distribution and organizational characteristics are diverse, although all are subject to the same set of general directives. Between 1996, when universal access to highly active antiretroviral therapy (HAART) was established, and 2007, the number of sites delivering special care to HIV patients increased from 33 to 636, according to outpatient sites registered by the Ministry of Health's Department of STD/AIDS and Viral Hepatitis.

Between 2001 and 2002, sites in seven Brazilian states were evaluated, based on evaluative research that developed and validated the *Qualiaids* Questionnaire. The instrument was completed by local managers. Questions included availability of resources, organization of the care process and management.⁷

The purpose of the questionnaire in supporting local management and defining policies encouraging quality, along with its potential as an instrument for monitoring and evaluating services, motivated the interest of the Ministry of Health in using it with all the sites in the country. The original questionnaire was adapted to be used electronically in 2005, accompanied by an online good practice recommendations guide referring to the dimensions of care assessed in the questionnaire.^a

From 2007, the *Qualiaids* Questionnaire was adopted as the official quality evaluation instrument of SUS outpatient HIV services. The Ministry of Health conducted the evaluation requesting all sites in the country to answer the questionnaire. The survey report and database, developed in partnership with the Ministry of Health, were forwarded to the state level managers of the STD/AIDS program and disseminated in workshops conducted by national level managers.^b This article aimed to assess outpatient care services for adults living with HIV in 2007 and compare it with the 2001 results.

METHODS

The *Qualiaids* Questionnaire was validated in 27 sites with different care organizational characteristics and the results of its first application in 2001 were analyzed and disseminated among site managers, decision makers and specialized publications in the field.^{7,9,10} For the 2007 evaluation, the electronic questionnaire was made available to the sites.

The universe of sites which participated in the 2007 evaluation was defined by a list of 636 outpatient care services provided by the 27 Brazilian federal STD/AIDS coordinators. The sites were invited to complete the questionnaire online, consisting of 107 multiple choice questions: nine questions concerning institutional characteristics, location and site size; 24 on availability of resources; 42 on organization of care and 32 on local care management.

Descriptive analysis was carried out for 464 sites evaluated in 2007 and comparative analysis was carried out for 204 of these sites which had also been assessed in 2001. Percentages of sites were calculated according to their responses regarding three evaluative dimensions: Resources, Care and Management. Sites missing out ten or more questions were excluded from the analysis. Geographical location and site size were not considered in this analysis. No statistical estimates were included in the comparison of percentages obtained in 2001 and in 2007 as they referred to all respondents sites. Percentage variation between the two applications was calculated (*P2007* (% 2007)- *P2001* (% 2001)/ *P2001* *100).

Being able to schedule tests and appointments with specialists in under 15 days was deemed "promptness" This article used administrative data from the database produced by the application of *Qualiaids* carried out by the Ministry of Health Department of STD/AIDS and Viral Hepatitis, given to the authors of this article as part of a technical cooperation agreement. The health care sites' managers voluntarily agreed to participate.

RESULTS

Of the 636 sites existent in 2007, 504 (79.2%) answered the questionnaire, of which 464 (73.0%) answered at least 97 of the 107 questions in the instrument and constituted the universe analyzed (Table 1).

^a Nemes MIB, Basso CR, Castanheira ERL, Melchior R, Alencar TMD, Caraciolo JMM, Alves MTSSB. Qualiaids: assessing and monitoring the quality of SUS outpatients care for AIDS patients. Brasília (DF): Ministério da Saúde; 2008. v.1. (Série A. Normas e Manuais Técnicos) [cited 2013 Mar 13]. Available from: http://sistemas.aids.gov.br/qualiaids/guia_qualiaids.pdf

b Nemes MIB, Alencar TMD. Qualidaids: avaliação da assistência ambulatorial aos adultos vivendo com HIV/Aids: relatório 2007/2008. Ministério da Saúde; 2008 [cited 2013 Mar 13]. Available from: http://sistemas.aids.gov.br/qualiaids/Relat%F3rio_Qualiaids_2008_PDF.pdf

Table 1. Outpatient care sites for adults living with HIV/AIDS according to geographical location and number of questions answered. Brazil, 2007.

Region	Existing sites	Sites which responded to at least one question	% of responses	Sites considered in the analysis	% final response
North	30	13	43.3	11	36.7
Northeast	66	55	83.3	53	80.3
Midwest	36	31	86.1	28	77.8
South	145	135	93.1	131	90.3
Southeasta	63	40	63.5	33	52.4
Rio de Janeiro (state)	103	87	84.5	80	77.7
São Paulo (state)	193	143	74.1	128	66.3
Total	636	504	79.2	464	73.0

^a Except the states of Rio de Janeiro and São Paulo

Of the 464 sites analyzed, 67.2% were located in municipalities with fewer than 400,000 inhabitants.

Of the sites, 26.7% treated more than 500 patients on antiretroviral therapy (HAART); 36.0% between 101 and 500, 11.6% between 51 and 100 and 24.1% with up to 50 patients. It was in the south and southeast regions where 80.2% of the sites were located, of which 68.6% units were non-exclusive to STD and AIDS care. (Table 1).

There were 91.4% of sites easily accessible by public transport; 82.8% were open to the public five days or more per week, and 78.1% were open eight hours a day or more.

All sites reported the presence of at least one infectious diseases specialist or general physician responsible for HIV/AIDS care; 44.2% had one physician; 46.1% reported that the doctor(s) had five or more years' experience treating HIV/AIDS.

There was at least one infectious diseases specialist in 68.5% sites and the availability of other professionals in the health care team was high, with the exception of dentists (Table 2).

Promptness in scheduling appointments was high for gynecologists (75.0%). Waiting time for other specialist appointments, taking > 45 days or unavailability, was 24.5% for cardiology and 31.9% for psychiatry.

Approximately 75.7% of sites provided, on average, three or more CD4 count tests per patient/year and 71.8% Viral Load. The promptness of the test results was lower: 28.5% and 19.2% respectively.

In 47.2% of the sites the results of HIV diagnosis using Anti-HIV (Elisa) were available promptly, and this was the case in 20.3% care units for the Western-Blot test.

Laboratory tests used to monitor the toxicity of the medications requiring more promptness (blood count, blood urea nitrogen, transaminases) were available in 74.8% of the sites. Simple imaging tests, such as x-ray (chest, sinuses, abdomen), had high availability (76.7%), while the more complex ones (such as endoscopy and CT) were less available.

There was high availability for all of the antiretroviral drugs. There were one week gaps in supply for 6.9% of care units for zidovudine+lamivudine, and 0.9% for amprenavir. Trimethoprim-sulfamethoxazole, the most widely used drug for prophylaxis and treating opportunistic infections, was reported unavailable in 3.2% of the sites; 7.5% reported gaps in supply of more than 15 days.

First time patients were seen by a university-level professional on the same day in 72.0% of the sites.

Appointments were scheduled at the beginning of the period for all patients in 45.7%; 14.7% of the sites reported booking appointments in groups of patients and 27.4% made appointments for a specific time for each patient. Up to ten patients were scheduled for four hours/doctor in 65.7% of the sites; 14.4% scheduled 16 or more appointments per doctor for a 4 hours period. The average time for a follow-up consultation was 15 minutes in 49.4% of the sites.

In the event of patients without appointments, 59.3% of the sites would see the patient on the same day (regardless of whether there was space in the diary); 35.1% of the care units kept "free appointments" for this kind of eventuality.

Clinical complications are the main reason behind demand for unscheduled appointments in 77.8% of sites, followed by requests for testimonials for the purposes of claiming social benefits (43.1%).

^c Instituto Brasileiro de Geografia e Estatística. Censos demográficos. Rio de Janeiro; [cited 2011 Oct 6]. Available from: http://www.ibge.gov.br/home/estatistica/populacao/default_censo_2000.shtm

Table 2. Outpatient care sites for adults living with HIV/AIDS according to indicators of availability of resources, care organization and technical management. Brazil, 2007.

Availability of resources		Sites					
Composition of the local team At least one infectious diseases specialist 318 68.5 At least one nurse 410 88.4 At least one psychologist 368 79.3 At least one social worker 367 79.1 At least one pharmacist 373 80.4 At least one dentist 268 57.8 Schedule appointment with specialist within 15 days Gynecologist 348 75.0 Psychiatrist 184 39.7 Neurologist 118 25.4 Proctologist 92 19.8 25.4 Proctologist 175 37.7 Ophthalmologist 160 34.5 34.7 37.7 Ophthalmologist 160 34.5 34.8 75.0 Proctologist 175 37.7 Ophthalmologist 160 34.5 34.8 75.0 Proctologist 175 37.7 Ophthalmologist 160 34.5 34.8 25.4 Proctologist 175 37.7 Aph.8 19.2 28.5 Exam results available within 15 days 175	Dimension	n	%				
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At least one pharmacist 373 80.4 At least one dentist 268 57.8 Schedule appointment with specialist within 15 days 75.0 Gynecologist 348 75.0 Psychiatrist 184 39.7 Neurologist 118 25.4 Proctologist 92 19.8 Cardiologist 175 37.7 Ophthalmologist 160 34.5 General surgeon 129 27.8 Exam results available within 15 days 28.5 CD4 T lymphocytes counts 132 28.5 HIV RNA (viral load) 89 19.2 Complete blood count (CBC) 374 80.6 Blood urea nitrogen (BUN) 364 78.5 Transaminases (AST / ALT) 357 76.9 Upper gastrointestinal endoscopy 158 34.1 CT scan 92 19.8 Organization of care Scheduling up to 10 appointments 305 65.7 Average length of new case appointments > 45 min 208 44.8 Average length of follow up appointments > 30 min <	At least one psychologist	368	79.3				
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Cardiologist 175 37.7 Ophthalmologist 160 34.5 General surgeon 129 27.8 Exam results available within 15 days CD4 T lymphocytes counts 132 28.5 HIV RNA (viral load) 89 19.2 Complete blood count (CBC) 374 80.6 Blood urea nitrogen (BUN) 364 78.5 Transaminases (AST / ALT) 357 76.9 Upper gastrointestinal endoscopy 158 34.1 CT scan 92 19.8 Organization of care Scheduling up to 10 appointments per 4 hours Average length of new case appointments > 45 min Average length of follow up appointments > 30 min Routine scheduling of gynecologist appointment Following up missed appointments Following up missed appointments Management Planning for local team 268 57.8 Recording total missed appointments Technical-administrative support for the health care professionals Regular team meetings 167 36.0	Neurologist	118	25.4				
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HIV RNA (viral load) 89 19.2 Complete blood count (CBC) 374 80.6 Blood urea nitrogen (BUN) 364 78.5 Transaminases (AST / ALT) 357 76.9 Upper gastrointestinal endoscopy 158 34.1 CT scan 92 19.8 Organization of care Scheduling up to 10 appointments per 4 hours Average length of new case appointments > 45 min Average length of follow up appointments > 30 min Routine scheduling of gynecologist appointment Following up missed appointments Management Planning for local team 268 57.8 Recording total missed appointments Technical-administrative support for the health care professionals Regular team meetings 167 36.0	Exam results available within 15 days						
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CT scan 92 19.8 Organization of care Scheduling up to 10 appointments per 4 hours Average length of new case appointments > 45 min Average length of follow up appointments > 30 min Routine scheduling of gynecologist appointment Following up missed appointments Management Planning for local team Recording total missed appointments Technical-administrative support for the health care professionals Regular team meetings 192 19.8 19.8 105.7 44.8 44.8 49.8	Transaminases (AST / ALT)	357	76.9				
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Scheduling up to 10 appointments per 4 hours Average length of new case appointments > 45 min Average length of follow up appointments > 30 min Routine scheduling of gynecologist appointment Following up missed appointment Planning for local team Recording total missed appointments Technical-administrative support for the health care professionals Regular team meetings 208 44.8 49.8 33.4 74.8 33.4 74.8 347 74.8 57.8 65.2 65.2	CT scan	92	19.8				
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gynecologist appointment Following up missed appointments Management Planning for local team Recording total missed appointments Technical-administrative support for the health care professionals Regular team meetings 347 74.8 348 74.8 349 347 349 350 360		231	49.8				
appointments Management Planning for local team Recording total missed appointments Technical-administrative support for the health care professionals Regular team meetings 74.8		155	33.4				
Planning for local team 268 57.8 Recording total missed appointments 176 37.9 Technical-administrative support for the health care professionals Regular team meetings 167 36.0	· .	347	74.8				
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appointments Technical-administrative support for the health care professionals Regular team meetings 176 37.9 261 56.2 86.0	Planning for local team	268	57.8				
for the health care professionals Regular team meetings 167 36.0		176	37.9				
	• • • • • • • • • • • • • • • • • • • •	261	56.2				
Integration with NGO 209 45.0	Regular team meetings	167	36.0				
	Integration with NGO	209	45.0				

The use of some kind of care guideline form or appointment protocol was reported by 51.5% of the sites for first appointments and 56.3% for tuberculosis/HIV co-infection, pregnant women or occupational accidents.

Of the sites analyzed, 80.2% reported that the patients' adherence to treatment was verified in individual appointments through questioning them about correct medication use. Adherence groups were conducted by 28.9% of sites, 21.3% stated they applied detailed records on medication use and 34.3% used pill counts. In 63.8% of sites the first appointment was scheduled within 15 days of starting HAART.

Asked about usual approach when faced with patients expressing the desire to have children, 80.6% of the sites reported providing guidance on the risks and discussing the best time for conception. Routine referral to a gynecologist (even in the absence of complaints) was related by 33.4%.

Approximately 91.2% of the sites had a technical coordinator and in 45.7% of the sites the technical coordination was a fulltime task; 33.0% of managers had been working in management for more than six years and 53.0% had management training.

The most commonly registered data were: number of patients using antiretroviral drugs (92.7%), number of appointments/procedures (89.0%) and appointments per doctor (88.1%). Lower frequencies were observed for systematically recording number of missed appointments per patient (27.0%) and recording the first appointment of the year (38.7%).

Technical or administrative supervision was reported in 56.2% of the sites, and regular staff meetings in 36.0%; 34.1% reported some type of activity aimed at minimizing professionals' suffering.

Meetings in which patients participated were reported by 16.4% of the sites; 40.5% stated that there was some kind of organized patient participation in finding solutions to problems.

Among the most commonly mentioned managerial difficulties were: specialist referrals (58.0%), hiring university level (56.0%) and medium level (42.0%) human resources, finding referral beds for hospitalizations (42.0%), acquiring consumable (36.6%) and permanent (36.9%) resources and the supply of drugs against opportunistic infections (32.1%).

The responses of the 204 sites which completed the Qualiaids Questionnaire in 2001 and 2007 were compared.

Three or more viral load tests per patient/year were more widely available, with a percentage variation (PV) of 90.5%. On the other hand, promptness of referrals to all of the specialists investigated worsened, with

Table 3. Outpatient care sites for adults living with HIV/AIDS according to indicators of resource availability. Brazil, 2001 and 2007. (n = 204)

Availability of resources	20	001	20	2007		
Availability of resources	n	%	n	%	Variation	
Team with a psychologist, nurse, social worker	129	63.2	135	66.0	4.4	
Availability of 3 or more T-Lymphocyte CD4 count tests per patient / year	116	56.9	152	74.5	30.9	
Availability of 3 or more Viral Load tests per patient / year	75	36.8	143	70.1	90.5	
Availability of upper endoscopy scans within 15 days	65	31.9	70	34.5	8.2	
Availability of tomography and colonoscopy within 15 days	46	22.5	45	22.2	-1.3	
Scheduling appointments with specialists within 15	days					
Gynecology	161	78.9	145	70.9	-10.1	
Psychiatry	127	62.3	76	37.4	-40.0	
Neurology	83	40.7	57	25.1	-38.3	
Proctology	56	27.5	40	19.7	-28.4	
Cardiology	114	55.9	70	34.5	-38.3	
Ophthalmology	87	42.6	68	33.5	-21.4	
General surgery	86	42.2	51	25.1	-40.5	
Referrals to other specialties within 15 days						
Odontology	125	61.3	128	62.6	2.1	
Psychology	156	76.5	154	75.4	-1.4	
Social services	184	90.2	176	86.2	-4.4	

Table 4. Outpatient care sites for adults living with HIV/AIDS according to organization of care indicators. Brazil, 2001 and 2007. (n = 204)

Organization of care	20	2001		007	%
Organization of care		%	n	%	Variation
Appointment scheduled for specific time	44	21.6	57	27.9	29.2
Routine interval between starting ARVs and returning to the service					
7 days	36	17.6	56	27.5	56.3
15 days	77	37.7	79	38.7	2.7
30 days	62	30.4	52	25.5	-16.1
60 days	3	1.5	5	2.5	66.7
Same day appointment by university level professional for 1st time patient	119	58.3	181	88.8	52.3
Availability of adherence group	41	20.1	68	33.3	65.7
Detailed records kept of the patients' activities and medication use	34	16.7	48	23.5	40.7
Routine scheduling of gynecologist appointment	76	37.3	74	36.3	-2.7
Principal reasons for requesting consultation without a scheduled appointment	ent				
Clinical complications	193	94.6	155	76.0	-19.7
Running out of medication	118	57.8	79	38.7	-33.0
Missed previous appointment	115	56.4	83	40.7	-27.8
Lost to follow-up	72	35.3	58	28.4	-19.5
Requested to attend	81	39.7	58	28.4	-28.5
Seeking testimonial for claiming benefits	120	58.8	90	44.1	-25.0
Referrals within the team					
Doctor makes the referral	143	70.1	146	71.6	2.1
All professionals make referrals	114	55.9	132	64.7	15.7
All patients are seen. at least once. by all health professionals on the team	55	27.0	58	28.4	5.2

PV between 38% and 40% for psychiatry, neurology, cardiology and general surgery (Table 3).

Indicators of care organization showed an increase in the number of sites which booked appointments setting specific time (PV of 29.2%); in the percentage of sites which reported conducting adherence groups (PV 65.7%) and in the percentage of those which scheduled appointments within 15 days of starting antiretroviral therapy (PV of 59.0%). Routine gynecology appointments (regardless of complaints) remained practically unchanged, with a percentage of 37.3% in 2001 and 36.3% in 2007 (Table 4).

Clinical complications, the need to apply for social benefits, running out of medication and missing the previous appointment were the main reasons patients sought unscheduled appointments in 2001. In 2007, all of these percentages were lower, with negative PV between 19.5% and 33.0%. Clinical complications and applying for social benefits remained the first and second most common reasons, respectively (Table 4).

The referral flow remained centralized around the doctors. There was a 15.7% variation in the number of sites whose professionals carried out the referrals for the entire team (Table 4).

The proportion of meetings to discuss cases remained low, with a small, positive variation. Regular staff meetings maintained similar proportions between 2001 and 2007 (Table 5).

A marked increase in patient participation was observed in 110 sites in 2007, especially through using a management council or similar (PV of 183.1%).

There was a significant decrease in the proportion of sites that reported challenges in accessing viral load and CD4 count tests (negative PV of 80.4%). Difficulties

Table 5. Outpatient care sites for adults living with HIV/AIDS according to indicators of management. Brazil, 2001 and 2007. (n = 204)

Managamant	2001		2007		%	
Management	n	%	n	%	Variation	
Regular meetings to discuss cases	<u> </u>					
Weekly	27	13.2	29	14.2	7.6	
Fortnightly	9	4.4	9	4.4	0.0	
Monthly	15	7.4	16	7.8	5.4	
Work meetings						
Weekly	26	12.7	29	14.2	11.8	
Fortnightly	15	7.4	15	7.4	0.0	
Monthly	32	15.7	30	14.7	-6.4	
Recording data						
Number of missed appointments per patient	37	18.3	55	27.0	47.5	
First appointment of the year for each patient	66	32.4	79	38.7	19.4	
Organized patient participation						
Yes, through an NGO	42	20.6	43	21.1	2.4	
Yes, through a management council	12	5.9	34	16.7	183.1	
Yes, other	31	15.2	33	16.2	6.6	
Most commonly reported managerial difficulties						
Access to laboratory tests in general	43	21.1	37	18.1	-14.2	
Access to CD4 / viral load tests	118	57.8	23	11.3	-80.4	
Antiretroviral drugs	26	12.7	35	17.2	35.4	
Drugs against opportunistic infections	95	46.6	69	33.8	-27.5	
Referrals to specialists	118	57.8	125	61.3	6.1	
Beds for hospitalizations	104	51.0	85	41.7	-18.2	
Spaces in hospital during the day	30	14.7	19	9.3	-36.7	
Beds in maternity wards	12	5.9	10	4.9	-16.9	
Slots for home care	36	17.6	31	15.2	-13.6	
Contracting higher level human resources	129	63.2	121	59.3	-6.2	
Contracting mid-level human resources	96	47.1	80	39.2	-16.8	
Acquiring consumable resources	68	33.3	76	37.3	12.0	
Acquiring permanent resources	70	34.3	73	35.8	4.4	

in hospital referrals and with supplies of opportunistic infections medication have also decreased.

Referral to specialists and hiring higher level staff remained the most commonly reported difficulties, with little variation between the two assessments.

DISCUSSION

The 2007 evaluation demonstrated that the care unit network had the resources essential to outpatient care: doctors, antiretroviral drugs supplies, availability of the most important tests for monitoring cases. The majority also reported having a multidisciplinary teams and access to simple imaging tests.

There are, however, significant shortcomings, such as the low availability of dentists, present in just over half the sites.

Viral load and CD4 tests are widely available and provided by the Federal Government, in contrast to other kinds of tests, which depend on the local public health network (state or municipality responsibilities). Access to specialists also depends on regional and local networks, and is difficult or non-existent in many sites.

Although the majority of sites are open all day long, functional access is undermined in those units that schedule all patients (or group of patients) at the beginning of the shift. This frequently means long waiting times, typically associated with lower levels of patient satisfaction.

It is also worrying that follow-up appointments are expected to take less than 15 minutes in many sites. A similar study carried out with 21 American sites showed an average appointment time of 20 minutes, varying between 15 and 40, for this type of appointment.¹⁶

It is probable that, for some sites, the main problem is a lack of doctors, given the shortages and poor distribution of this professional, especially in public health services. Moreover, "squeezing in" patients who do not have appointments may contribute to doctors being over worked: 35.1% of sites reported having some kind of system (such as keeping slots free), although 59.3% stated that all patients without an appointment were seen.

Even with an appropriate number of hours/doctor, some sites may have professionals who work fewer hours than those officially contracted. This is a problem frequently experienced by health care managers, although no empirical studies on this topic exist. It is possible that, faced with the impossibility of changing this situation, some managers reach an informal agreement with

doctors on the maximum number of hours within their actual time spent at the site. Thus, they guarantee to meet care demands, although the length of appointments are reduced and may compromise the quality of care. Doctors with shorter shifts may be the reason for scheduling all patients or group of patients at the beginning of the shift.

There is no available evidence to support guidelines for length of consultation on HIV/AIDS. In general clinical practice, the time varies between countries and site types. It is, however, considered at least a proxy measure of quality.^{2,14} Short consultations suggest insufficient technical quality and little capacity for listening and dialogue. This is a similar profile to what Campos describes as "debased practice",¹ and typically observed in unscheduled appointments.

Dealing with unscheduled cases, far from being a fast and "simple" health care alternative, is a technologically complex and prioritized moment, both from the point of view of diagnosing significant clinical complications and dealing with patients who have missed appointments, a group at greater risk of non-adherence.

Even seen as a proxy indicator of quality, studies emphasize the importance of the professionals' experience and specialization in obtaining good clinical outcomes, 4.5.13 something which has been highlighted since the beginning of the epidemic.³ Our study observed that almost half of the doctors has five or more years' experience, which could be considered as adequate experience of dealing with HIV patients. On the other hand, around a third of sites did not have an infectious disease specialist, whose original training in HIV/AIDS is more specialized.

Qualified and flexible support systems (mentoring) contribute to the improvement of the quality of medical care in de-centralized systems. However, establishing such systems appropriately is not observed in most outpatient units of the SUS. In this study, the majority of HIV/AIDS sites reported that they had no systematic way of supervising or supporting professionals.

The opportunity to exchange opinions and discuss cases in day-to-day professional interaction, a traditional way of learning, is not viable in almost 40% of sites, in which there was one doctor responsible for monitoring HIV patients. Sites with only one doctor are associated with lower quality of care.¹¹

As important as the qualification of the professionals who care for the patients, effective technical – and not just bureaucratic – management enhances the effectiveness of health care: establishing and monitoring care routines, assessing and monitoring work, integrating

d Ministério da Saúde, Secretaria de Vigilância em Saúde, Programa Nacional de DST e Aids. Orientações para abordagem consentida, alerta de má adesão aos antirretrovirais e critério de abandono ao tratamento. Brasília (DF); 2009. (Technical Note 208/09 AIDS/SVS/MS).

the team and enhancing communication with patients and third parties.12

It is the responsibility of management to ensure minimum structures of care for all patients and, simultaneously, for those who are more vulnerable to falling ill. Among those are the groups most at risk of non-adherence to treatment. It is positive that most of the sites routinely schedule appointments at shorter intervals at the beginning or HAART, a period crucial to adherence.8,e

A large number of sites show negative characteristics for typical management activities. In terms of assessment and monitoring, a high percentage of sites do not calculate traditional performance indicators, such as coverage and concentration of activities, due to a lack of recorded data. In terms of team integration, there are insufficient formal internal communication mechanisms and a lack of support and supervision activities for the professionals. Regarding social control and participation, there are not enough mechanisms for patient participation and communication with civil society organizations.

Comparison of the 204 sites, which completed both evaluations, showed improvements but also significant persistent deficiencies.

The improvement in the availability of resources under federal management stands out among the characteristics evaluated: there was a significant improvement in the availability of CD4 count and viral load tests. Antiretroviral supply became more timely: running out of medication is no longer a factor for patients seeking unscheduled appointments.

The comparison showed some negative characteristics that persisted in managing health care, at a local level. Routine referral to a gynecologist is still not adequate, in spite of the importance of the women's health issue in the program guidelines.f Multi-professional team integration is flawed, indicated by the large proportions of doctor-centered referrals and the lack of regular staff meetings. Moreover, there are few sites which seek to improve accessibility by scheduling appointments at a specific time.

The consolidation of broader access to essential resources, such as new medication and tests, reiterates the Brazilian AIDS program's justified reputation for good performance, compared to other middle income countries at that time.15

HIV patient care in Brazil brought up ethical commitments and technological propositions that serve as examples to the Brazilian Health System. It is, however, in health care professionals' and local managers' day-to-day work that these proposals are realized. Standardizing, encouraging and monitoring the quality of this work is the challenge faced by these surveyed sites, and the health care system as a whole.

This study has some limitations: it does not include indicators of results and is based on local managers' responses. The sample was determined by voluntary participation and 27% of the sites did not answer the questionnaire or did not fulfill all of the requisites, and could not be included in the analysis. The only known characteristics of the non-respondents were the states and municipalities in which they were located. These aspects are not sufficient to understand possible differences in relation to the universe of the study, given the heterogeneity of sites within the same geographical area. On the other hand, the sites analyzed include the diversity of locations and types of delivery of care to HIV patients in Brazil.

As it examines process indicators, this assessment values the necessary conditions for the long-term care of a chronic condition, such as AIDS currently is. Assessing and monitoring essential characteristics of structure and process is the first step in a broader initiative to improve health care quality. The possibility, albeit limited, of assessing the evolution of these characteristics over a six-year-period is unprecedented in SUS outpatient care.

The monitoring and evaluation initiative led by the Ministry of Health Department of STD/AIDS and Viral Hepatitis involved the participation of states and municipalities (capitals and larger cities) AIDS program coordinators in two rounds of analysis. This process was repeated in some states and municipalities with local health teams. The analysis resulting from this evaluation promoted conditions for changes in the management and organization process, thus completing the "assessment cycle".

e Ministério da Saúde, Secretaria de Vigilância em Saúde, Programa Nacional de DST e Aids. Manual de adesão ao tratamento para pessoas vivendo com HIV e Aids. Brasília (DF); 2008. (Series A. Standards and Technical Manuals, 84). Normas e Manuais Técnicos, 84). ¹ Ministério da Saúde, Secretaria de Vigilância em Saúde, Programa Nacional de DST e Aids. Plano Integrado de Enfrentamento da Feminização da Epidemia de Aids e outras DST. Brasília (DF); 2007.

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The authors declare that there are no conflicts of interest.

EDITOR'S COMMENT

The *Qualiaids* research, from which this article originated, was the first comprehensive assessment of the quality of the SUS (Brazilian Unified Health System) health services for patients living with HIV/AIDS. This evaluative research aims to: describe the work processes conducted in the health care sites, contribute to the immediate application of results, disseminate the "evaluation culture", and encourage improvements in the services' quality.

Qualiaids assessment evaluation was decisively supported and used by the Ministry of Health and by many regional and local AIDS Program managers. The Ministry of Health, through the Department of STD/AIDS and Viral Hepatitis, made the results available to local and state level managers and encouraged local data analysis workshops for services' local planning. The *Qualiaids* Questionnaire, developed and validated in previous research, is today used as an assessment and monitoring tool for AIDS services all over the country. Adapted to be used online and accompanied by a Good Practice Guide, it has been used nationally twice, in 2007 and 2010.