Brazilian Ministry of Health Secretariat of Health Surveillance Department of STD, AIDS and Viral Hepatitis



Global AIDS Response Progress Reporting

Narrative Report

Brazil

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I) Introduction

Every global epidemic poses many challenges. However, throughout its three-decade history, the AIDS epidemic has brought about unique challenges. In response to these challenges, Brazil, within its cultural diversity and significant social and geographical differences, has helped to design a distinctive response to HIV/AIDS. The Brazilian experience has also stood as a hub for dialogue with other countries and with this perspective that Brazil participates once again in the process of drafting the Global AIDS Response Report - GARPR.

Brazilian GARPR assessment was carried out between February and March 2014 and has demostrated that new challenges have been overcome. However, the overall highlight of the Brazilian response, which is confirmed in this report, takes into account the permanent struggle of all countries to "get down to zero".

The HIV/AIDS epidemic is known as a condition of great impact in developing countries. In 2001, the global commitment "*Political Declaration on HIV/AIDS: Intensifying our Efforts to Eliminate HIV/AIDS*" was established to halt the spread of HIV, with the engagement of leaders, for the development of an integrated health responses at communities and local levels, by national and regional governments. This document represented the materialization of a continuous process of commitments reviews and led to a series of high level meetings, as well as in-depth analysis of a decade of global efforts to reduce new HIV infections and AIDS-related deaths.

Within this context, ten global targets were established to be achieved by 2015. Brazil became intensively involved with the preparation of the Mid Term Review document - the Ten Targets for 2015. Representing the Ministry of Health, together with UNAIDS Brazil, the Brazilian Department of STD/AIDS and Viral Hepatitis (DDAHV) and a group of experts took the lead in this process.

Considered one of the most inclusive public policies in the world, the Brazilian health policy has as its foremost initiative the Unified Health Care System (Sistema Único de Saúde, SUS). The SUS provides health care to more than 190 million Brazilians and qualifies health "as a right of all and a duty of the State, guaranteed through social and economic policies aimed at reducing the risk of illness and other hazards and at universal and equal access to actions and services for its promotion, protection and recovery" (Brazilian Federal Constitution, 1988). The Health Law No. 8.080/90 created the Unified Health Care System in 1990 and was regulated in 2011 by Presidential Decree No. 7508. The coordination and surveillance of SUS, as well as of health policies are under the responsibility of the Ministry of Health.

For the preparation of *GARPR* 2014, the Brazilian Department of STD/AIDS and Viral Hepatitis again adopted the Working Group strategy as a reference for data gathering and subsequent response of the indicators. The Department also coordinated the completion of the National Commitment Policy Instrument (NCPI) using the same methodology and data collection instruments suggested by UNAIDS. Since February 2014, when the guidelines were released by UNAIDS, the Department worked through three different sources of information gathering:

- Information system for the UNAIDS GARPR 2014 In which data on the country epidemic were recorded (DDAHV, March/2014) and consolidated into indicators related to the ten goals of the 2011 Declaration;
- (2) NCPI Standard Form (Part A) open and closed questions for each section answered by appointed Department's representatives in accordance with UNAIDS: managers at the national, state and local levels. The "Part B" of the NCPI was answered with the crucial collaboration of representatives of social movements, civil society organizations and academic institutions;
- (3) National Public Consultation held on March 26th, 2014 With 53 people in attendance, including representatives of government administration (federal, state and local levels) civil society organizations; academic institutions; and the UN system agencies. Besides the audience 119 representatives of different

key levels and sectors also responded the NCPI questionnaires. The consultation was organized in two phases: in the morning, presentation of data, followed by the main conclusions; and the afternoon session when group activities took place in order to collect further data from discussions.

Although much has been achieved, national challenges remain, requiring new actions to fight the epidemic. In the period between the first notification in Brazil, in 1983, and June 2013, 686,478 cumulative AIDS were recorded, with an average of 37,000 new cases per year from 2002 to 2012. In the same period, the country had a total of 265,698 deaths due to AIDS, with a mortality rate in 2012 of 5.5/100,000 inhabitants. Given this scenario, major changes have been implemented in the AIDS response, with the support and participation of all key stakeholders, especially since the second half of 2013.

The new phase of the AIDS response in Brazil

Brazil has today an HIV/AIDS epidemic that is stable at the national level and concentrated in key populations. In 2011, the HIV prevalence rate in the general population was 0.4%. However, the country has a high HIV prevalence among gay men and other men who have sex with men (MSM) of 10.5% (RDS 2009/10); 5.0% among people who use drugs (PWUD) (data from? 2013); and of 4.9% among female commercial sex workers(Fonte/data?). In the last decade, there has been an increase of AIDS cases among gay men and other MSM aged 15-24 years with a prevalence of 4% in the age group of 18-24 years. In São Paulo, for example, the prevalence rate in this group reached 15% in 2012.

From 2008 to 2012, 33,577 HIV exposed children under 12 months of age were followed-up in the health system, with an average of 6,715 (6,357-6,993) children per year. Of these, 1680 children under 12 months turned out to be HIV-positive, an average of 336 (307-354) cases/year. Only in 2012, 307 HIV cases in children

under 12 months were diagnosed, and the national rate remained at 0.11/1,000 live births.

Thus, in the second half of 2013, the DDAHV started focusing its efforts on innovative strategies based on scientific evidence; on intensifying the dialogue with all actors involved in the Brazilian response; and on expanding its international mind-setting proactive role. Consequently the national AIDS response changed its course leading to an update of its policy and a redirection of the everyday management, care and interventions related to the epidemic.

Treatment as Prevention (TasP): Brazil, as the first developing country to adopt it

Brazil has taken the leadership position as the first developing country in the world to provide Treatment as Prevention (TasP), since December 2013. With this measure, treatment can be initiated immediately after the confirmation of the HIV diagnosis regardless the CD4 count. The implementation of this new approach will improve the quality of life of people living with HIV and reduce the likelihood of transmission, hence promoting a public health impact.

The DDAHV is currently strengthening the strategies of expansion to foster the capillarity of testing, through increasing the use of rapid tests (finger-prick) in primary care services throughout the country. In addition, Brazil is also preparing the health services for the use of fixed-dose combination in order to improve both treatment adherence and retention to services. Goals for 2014 include increasing antiretroviral treatment coverage with the inclusion of at least 100,000 new patients; and the expansion of HIV management for primary care.

The country has solid information systems for monitoring data related to the epidemic, namely: Information System for Notifiable Diseases (SINAN), Mortality Information System (SIM), Laboratory Tests Control System (SISCEL) and Medication Logistics Control System (SICLOM). Considering that the country only reported aids cases since the beginning the epidemic, it is important to highlight that the country recently established a mandatory system of HIV notification which

will provide qualified data around the epidemic from 2014 and, consequently, drive new prevention, care and treatment actions.

Regarding the control of sexually transmitted diseases, the DDAHV highlights the development and launching of management protocols for children/adolescents; mother to child transmission of HIV, syphilis and hepatitis B; and adults, in addition to the "Management Protocol of Sexually Transmitted Infections". Moreover, the Brazilian Government launched the HPV immunization strategy targeting girls between 11 to 13 years old, and a set of innovative strategies for the treatment of syphilis, including campaigns and educational activities aimed at fighting congenital syphilis.

Public consultations: policies with the participation of the civil society

The Brazilian government has invested in permanent institutional forums for dialogue between the Government and the general society, which resulted in public consultations. Between October 2013 and January 2014, four regional public consultations were held, of a total of six to be completed by April 2014.

The audience of these consultations included representatives from academia, researchers, civil society organizations, health surveillance boards, state and local coordination of HIV/AIDS and viral hepatitis, people living with AIDS, health councils, among other key actors. The Brazilian Ministry of Health ensured complete cooperation from society through real time virtual access to these meetings, enabling questions and suggestions to be sent remotely and answered live by representatives of the Brazilian government. On the Ministry's webpage, textual and audiovisual educational materials were also made available to support the consultations (documents on the current situation of the HIV/AIDS epidemic and of viral hepatitis, reference materials and an instrument with the main points for discussion). Each consultation was attended by approximately 200 key strategic actors. The participation of different actors and organizations again proved essential

in the construction of the Brazilian response to HIV/AIDS and viral hepatitis. Another important action of the Brazilian government has been the focus of the Brazilian response in populations at most risk, as well as in hotspots of the epidemic (places were the epidemic has higher prevalence), such as the ones seen in the states of Rio Grande do Sul and Amazonas.

One advantage of regionalized consultations was the customization of understanding different regional epidemics in a country of vast territorial size and, as such, the development of appropriate responses to different contexts.

With this in mind, a document was produced with recommendations for developing inter-state actions. These recommendations highlight the direct engagement of governmental and nongovernmental organizations, as well as researchers and other actors; specific actions for key populations; test and treat; Hepatitis B vaccine expansion, among other actions.

Inter-state Cooperation: local realities, local action

The HIV/AIDS epidemic shows contrasting rates between different regions of Brazil. Therefore, new strategies to enhance the response to the epidemic include, in addition to national initiatives, measures focused on places where the epidemic is still very explosive (hotspots). The actions of inter-state cooperation, a strategy adopted as an approach to hotspots, seek to unite efforts of the managers of the three national levels and key stakeholders to respond more intensively to HIV. The first states to try out the strategy were Rio Grande do Sul (highest notification rate of AIDS cases in the country) and Amazonas (highest AIDS mortality rate in the country). In these actions, managers articulate with the different stakeholders to enhance the actions in testing, prevention, and treatment; and to improve the quality of epidemiological information.

Financial sustainability: new forms and rules

Brazil has financial self-sufficiency for the national response to the HIV/AIDS epidemic. The investment needs are estimated annually when preparing the Annual Budget Law (LOA)¹ in the context of the total federal budget for the implementation of the actions of the Unified Health System. The resources allocated to the Ministry of Health are automatically transferred directly from the National Health Fund to the state, district and municipal funds². In terms of the financial contribution by the states, the Federal District and municipalities, Constitutional Amendment 29 (EC 29), enacted in January 2012, establishes an application ceiling of a minimum amount required of income resulting from state taxes (15%), Federal District revenue (12% to 15%) and municipal revenue (12%) for the maintenance and development of actions and public health services. On average, the allocation of resources in the national budget is equivalent to the economic growth achieved over the previous three years.

Until 2013, the "Health Surveillance Actions and Services" (ASVS) were financed through three incentives, which limited the application of resources by states and municipalities. In order to strengthen the decentralization of the ASVS, the Ministry of Health changed its financing, establishing a single incentive: "STD/AIDS and Viral Hepatitis Surveillance, Prevention and Control" (AVPC). With this, the funding rules were simplified, ensuring greater flexibility.

In addition to the health professionals and actors involved in SUS management at the federal, state and municipal levels, it is worth highlighting the importance of intersectoral partnerships with different sectors of the federal government in the construction of the Brazilian response to HIV/AIDS: Ministry of Women's

¹ The Annual Budget Law estimates Government revenue and authorizes expenditures in accordance with the revenue forecast. The annual budget is aimed at implementing the goals and objectives proposed in the Multiyear Plan, which is a medium-term plan to establish the guidelines, goals and objectives to be followed by federal, state and local governments over a period of four years (Article 165 of the Federal Constitution).

² The municipalities were selected taking into account epidemiological criteria and qualification was determined through adherence.

Policies; Ministry of Human Rights; Ministry of Youth and the Ministry for Promotion of Racial Equality, Ministry of Social Welfare, among others.

Improved management

In 2011, with the new Minister of Health, measures were taken to implement the guiding principles of the National Health Policy, i.e. universality, equality and integrity of health care offered to the population, as well as to ensure better organizational resolution in the process of SUS decentralization based on federal entities: Union, States, Federal District and Municipalities; regionalization and hierarchical aspects of health services networks. To this end, the Ministry of Health developed a strategic plan, establishing sixteen strategic objectives to be achieved from 2011 to 2015 (Figure 1).



Figure 1 - Strategic Objectives - 2011 to 2015

The Department of STD/AIDS and Viral Hepatitis, linked to the Department of Health Surveillance, is responsible for the implementation of three parts of the Strategic Objective 2 - related to health promotion and surveillance: Reducing HIV transmission (Strategy 08); Improving the quality of life of patients with viral hepatitis (Strategy 09); and Strategy 10 - eliminating congenital syphilis as a public health problem (Figure 2).

Since the second half of 2013, the Department of STD/AIDS and Viral Hepatitis started to work with the following organizational chart: directly linked to the DDAHV board are the Legal Consultancies (ASJUR), International Cooperation (ACI), Communication (ASCOM), Monitoring and Evaluation (AMA) and Strategic Action (AAE). The program coordinators are distributed based on the guidelines that support the national response to diseases for which the Department of STD/AIDS and Viral Hepatitis is responsible: General Coordination of Care and Treatment (CAT), General Coordination of Prevention and Social Articulation (CPAS), General Coordination of Strategic Information (CIE), General Coordination of Management and Governance

(CGC), General Coordination of Viral Hepatitis (CHV), and General Coordination of Laboratories (CLAB).



Figure 2 - Organizational Chart of the Brazilian Ministry of Health

Figure 3 - New Organizational Chart of the Department of STD/AIDS and Viral Hepatitis



Tackling inequalities, fighting AIDS

Brazil has shown significant progress in tackling socioeconomic inequalities that interfere with ensuring universal access to health. Among these advances, we highlight those involving the improvement of quality of life and minimization of the impact of the global economic crisis on the Brazilian population. These are advances that provide a direct and indirect benefit to people living with HIV/AIDS and their families.

In 2011, the Federal Government launched the Brazil Without Poverty Plan (*Brasil Sem Miséria*, BSM), with the aim of overcoming extreme poverty by the end of 2014. The BSM is organized into three pillars: income guarantee, for immediate relief of extreme poverty; access to public services to improve the education, health and citizenship of families; and productive inclusion, to increase the capabilities and work opportunities for income generation among poor families.

In 2013 an important milestone was reached by the BSM Plan, when 22 million Brazilian citizens benefited by the *Bolsa Família* Program (a family allowance welfare program) managed to cross the line of extreme poverty. It is important to highlight the creation of the *Ação Brasil Carinhoso, a* program that offers prevention and treatment of health conditions that hamper development in early childhood. This is done by expanding the distribution of vitamin A and ferrous sulfate, as well as free distribution of medicines for asthma and expansion of the School Health Program in kindergartens and preschools.

With regard to the pillar Access to Services, there was a growth of the network and primary care services in areas with higher poverty rates. In this sense, the role of community health agents and family health teams has been critical.

Measures to extend the *Bolsa Família* Program benefits, taken from 2012 onwards, have already brought health impacts, namely: the decrease of 46% in infant mortality from diarrhea and reduction of 58% in malnutrition; increased coverage of family health teams in priority municipalities, which benefited over 3.3 million families.

Table 1 - Summary - Indicators for Goal 1: Reducing sexual transmission of HIV by 50 percent by 2015

Indicator #	Sub-indicator	% Tot	% Male	% Female
	Percentage (%) of respondents between 15 and 24 years old who responded correctly to all five questions.	49	48.4	49.6
	Percentage (%) of respondents between 15 and 24 years old who responded correctly to question 1: "Can the risk of HIV transmission be reduced by having sex with only one uninfected partner who has no other partners?"		80.4	72
	Percentage (%) of respondents between 15 and 24 years old who responded correctly to question 2: "Can a person reduce the risk of getting HIV by using a condom every time he/she has sex?"		95.9	96.4
1.1	Percentage (%) of respondents between 15 and 24 years old who responded correctly to question 3: "Can a healthy-looking person have HIV?"		87.3	73.3
	Percentage (%) of respondents between 15 and 24 years old who responded correctly to question 4: " Can a person be infected by sharing tools for drug use, such as syringes, needles, pipes, tins, straws, etc. with others? "(Or specific question for the country).		84.3	85.4
	Percentage (%) of respondents between 15 and 24 years old who responded correctly to question 5: "Can a person get HIV by sharing food with someone who is infected?" (Or specific question for the country).		69.9	77.9
1.2	Percentage (%) of young men and women aged 15-24 who had sexual intercourse before the age of 15.	35	42.4	26
1.3	Percentage of women and men aged 15-49 who have had sexual intercourse with more than one partner in the past 12 months.	29.1	39.7	18.3
1.4	Percentage of women and men aged 15-49 who had more than one partner in the past 12 months who used a condom during their last sexual intercourse.	63.8	68.6	53.1
1.5	Percentage (%) of men and women aged 15-49 who were tested for HIV in the last 12 months and who know their results.	12.6	9.7	15.4
1.6	Percentage (%) of young women between 15 and 24 years of age infected with HIV.	0.31	-	-
1.7	Percentage (%) of sex workers who answered "Yes" to both questions.	-	-	46.81

		Percentage of sex workers who answered "Yes" to question 1: "Do you know where to go if you wish to have an HIV test done?		-	56.76
		Percentage (%) of sex workers who answered "Yes" to Question 2: "In the last 12 months, have you received condoms?"	-	-	77.09
1.8		Percentage (%) of sex workers (men and women) who reported using a condom with their most recent client.	-	-	90.09
1.9	· · · ·		-	-	17.52
1.10		Percentage (%) of sex workers infected with HIV.	-	-	4.91
		Percentage (%) of MSM who answered "Yes" to both questions.	-	38.74	-
1.11		Percentage (%) of MSM who answered "Yes" to Question 1: "Do you know where to go if you wish to have an HIV test done?	-	40.47	-
		Percentage (%) of MSM who answered "Yes" to Question 2: "In the last 12 months, have you received condoms?"	-	70.2	-
1.12	12 Percentage (%) of men who reported using condom the last time they had anal sex with a male partner.		-	59.73	-
1.13		Percentage (%) of MSM who were tested for HIV in the last 12 months and know their results.	-	19.11	-
1.14		Percentage (%) of MSM who are HIV-positive.	-	10.51	-
Indica #	ator	Sub-indicator	% tot	% Male	% Female
1.16		HIV testing and counseling in women and men aged 15 and older	-	-	-
1.16.1		Percentage of health facilities dispensing HIV rapid test kits that experienced a stock-out in the last 12 months	-	-	-
	1	Percentage (%) of women in antenatal care tested for syphilis at the first antenatal care visit.	-	-	89.5
1.17	2 Percentage (%) of women receiving antenatal of who tested positive for syphilis.		-	-	0.7
1.1/	3	Percentage (%) of women receiving antenatal care who tested positive for syphilis and received treatment.	-	-	83.4
	4	Percentage (%) of sex workers with active syphilis.	-	-	2.5
	5	Percentage of men who have sex with men with active syphilis		8.27	-
	10	Number of adults reported with genital ulcer disease in the past 12 months	81	19	63

Table 2 – Summary – Indicators for Goal	2: Reduce	HIV	transmission	among
injecting drug users by 50 percent by 2015				

Indicator #	Sub-indicator	Total #	% Total
2.2	Percentage (%) of injection drug users who reported using a condom the last time they had sexual intercourse.		40.8
2.3	Percentage (%) of injection drug users who reported using sterile equipment the last time they injected drugs.	227	54.31
2.4	Percentage (%) of injection drug users who were tested for HIV in the last 12 months and know the results.	512	15.0
2.5	Percentage (%) of injection drug users who are HIV- positive.	202	5.92
2.6	Estimated number of opiate users (injection and non-injection).	-	-

Table 3 – Summary – Indicators for Goal 3: Eliminate mother-to-child transmission of HIV by 2012 and significantly reduce maternal deaths by AIDS

Indicator #	Sub-indicator	Total #	% Total
3.1	Percentage (%) of HIV-positive pregnant women	7,776	63.86
	who received antiretrovirals to reduce the risk of		
	mother-to-child transmission.		
3.2	Percentage of infants born to HIV-positive women	4,095	36.99
	receiving a virological test for HIV within 2		
	months of birth		
3.3	Percentage (%) of infections in children of HIV-	399	3.6
	positive pregnant women who gave birth in the		
	past 12 months.		
3.6	Percentage (%) of HIV-infected pregnant women	4,484	36.82
	assessed for ART eligibility through either clinical		
	staging or CD4 testing		
3.7	Percentage (%) of infants of HIV-positive women	7,752	68.2
	(HIV-exposed children) who received antiretroviral		
	prophylaxis to reduce the risk of early mother-to-		
	child transmission in the first 6 weeks (i.e. early		
	postpartum transmission around 6 weeks of age).		

3.11	Number of pregnant women who had at least one antenatal visit during the reporting period.	2,808,0 96	-
	Number of infants born to HIV positive mothers ("HIV-exposed infants") born in 2012 (or latest data available)	· ·	-
3.12	Number of infants, born in 2012 (or latest data available) to HIV positive mothers, classified as indeterminate (i.e.: all lost to follow up, death before definitive diagnosis, indeterminate lab results)	102	-
	Number of infants born in 2012 (or latest data available) to HIV positive mothers that are diagnosed as positive for HIV	307	-
	Number of infants born to HIV positive mothers in 2012 (or latest data available) that are diagnosed as negative for HIV	6,467	-

Table 4 – Summary - Indicators for Goal 4: Reach 15 million people living with HIV on antiretroviral treatment by 2015

Indicator #	Sub-indicator	Total #	% Total
4.1	Percentage (%) of eligible adults and children currently receiving antiretroviral therapy*	352,617	74,6
4.2.a	Percentage (%) of HIV-positive adults and children who remain in treatment 12 months after starting antiretroviral therapy (among those who initiated therapy in 2010).	43,198	86.4
4.2.b	Percentage (%) of HIV-positive adults and children who are still alive and in treatment 24 months after starting antiretroviral therapy (among those who initiated therapy in 2009).	34,804	79.1
4.2.c	Percentage of HIV-positive adults and children who are still alive and in treatment 60 months after starting antiretroviral therapy (among those who initiated therapy in 2006).	61,813	75.2
4.3.a	Health facilities that offer antiretroviral therapy	734	-
4.3.b	Health facilities that offer pediatric antiretroviral therapy	470	
4.5	Percentage of HIV-positive persons with first CD4 cell count < 200 cells/ μ L in 2013	13,606	28,5

4.6. a	Number of adults and children enrolled in HIV	467,780	-	
	care at the end of the reporting period			
4.6.b	Number of adults and children newly enrolled in	64,806 -		
	HIV care during the reporting period			
4.7. a	Percentage of people on ART tested for viral load	189,890	86.9	
	who have a suppressed viral load in the reporting			
	period			
4.7.b	Percentage of people on ART tested for viral load	9,435	86.7	
	(VL) with VL level \leq 1000 copies/ml after 12			
	months of therapy			

Table 5 – Summary - Indicators for Goal 5: Reducing deaths due to tuberculosis in people living with HIV by 50 percent by 2015

Indicator #	Sub-indicator	Total #	% Total
5.1	Co-management of tuberculosis and HIV treatment	5,611	35.1
5.2	Percentage of adults and children living with HIV newly enrolled in care who are detected having active TB disease	7,480	13.5
5.4	Percentage of adults and children enrolled in HIV care who had TB status assessed and recorded during their last visit	28,997	89.6

Category	2009	%	2010	%	2013	%
Prevention	265,170,632	20.2	264,700,268	19.9	446,848, 241,00	27,25
Care and treatment	871,399,850	66.3	933,417,719	70.2	895,153,762,06	54,60
Strengthenin g the management and administrati on of programs	104,205,312	7.9	72,202,450	5.4	214,230,212,47	13,07

Table 6 – Summary - Distribution of spending by category, Brazil (Real)

It is worth noting that the data presented in this table refers to expenses related to the DDAHV. As such, they do not include states and municipalities.

II) Overview

According to the estimates of the Department of STD, AIDS and Viral Hepatitis, there are approximately 718,000 people living with HIV/AIDS in Brazil. In the young population, the prevalence rate of HIV infection has started to rise. Considering studies conducted on Brazilian army conscripts (17-21 years old) the HIV prevalence increased from 0.09% in 2002 to 0.12% in 2007, with the most significant increase having occurred in the gay men population and other young MSM, whose prevalence increased from 0.56% in 2002 to 1.2% in 2007³

With respect to key populations, studies of individuals over 18 years of age, conducted in 10 municipalities between 2008 and 2009 estimated HIV prevalence rates of 5.9% among people who use drugs4, 10.5% among MSM5 and 4.9% between female commercial sex workers6.

Regarding AIDS cases in Brazil, and taking the cumulative data (1980 to June 2013) into account, a total of 686,478 cases of AIDS were identified, of which 445,197 (64.9%) are male and 241,223 (35.1%) female. Of the total cases reported between 1980 and June 2013, 379,045 (55.2%) are from the Southeast; 137,126 (20.0%) from the South; 95,516 (13.9%) from the Northeast; 39,691 (5.8%) from the Midwest; and 35,100 (5.1%) from the North regions of the country (Graph 1).

³ SZWARCWALD, C. L. et al. HIV-related risky practices among Brazilian Young men, 2007. *Cad. Saúde Pública*, Rio de Janeiro, v. 27, Supl 1:S19-S26, 2011.

⁴ BASTOS, F. I. *Taxas de infecção de HIV e sífilis e inventário de conhecimento, atitudes e práticas de risco relacionadas às infecções sexualmente transmissíveis entre usuários de drogas em 10 municípios brasileiros.* Technical report submitted to the Department of STD, AIDS and Viral Hepatitis, 2009.

 ⁵ KERR, L. Comportamento, attitudes, práticas e prevalência de HIV e sífilis entre homens que fazem sexo com homens (HSH) em 10 cidades brasileiras. Technical report submitted to the Department of STD, AIDS and Viral Hepatitis, 2009.
⁶ SZWARCWALD, C. L. Taxas de prevalência de HIV e sífilis e conhecimento, attitudes e práticas de risco relacionadas às

^o SZWARCWALD, C. L. *Taxas de prevalência de HIV e sífilis e conhecimento, atitudes e práticas de risco relacionadas às infecções sexualmente transmissíveis nos grupos das mulheres profissionais do sexo, no Brasil.* Technical report submitted to the Department of STD, AIDS and Viral Hepatitis, 2009.



Graph 1 - Percentage distribution of AIDS cases by region of residence. Brazil. 1980 - 2013(1).



In 2012, 39,185 AIDS cases were reported in SINAN, stated on SIM and reported in Siscel/Siclom, of which 16,398 (41.8%) in the Southeast, 8,571 (21.9%) in the South, 7,971 (20,3%) in the Northeast, 3,427 (8.7%) in the North and 2,818 (7.2%) in the Midwest.

As for the detection of AIDS cases reported in the SINAN, stated on SIM and reported in Siscel/Siclom, in 2012 Brazil showed a detection rate of 20.2/100,000. The highest detection rate was observed in the South (30.9/100,000 inhabitants), followed by the Southeast (20.1), North (21.0), Midwest (19.5), and Northeast (14.8), as shown in Graph 2.

Graph 2 - Detection rate of AIDS cases by region of residence and year of diagnosis. Brazil, 2003 - 2012.



Source: Brazilian Ministry of Health/Health Surveillance Department/Department of STDs, AIDS and Viral Hepatitis.

Note: (1) Cases reported through SINAN and Siscel/Siclom as of 30/June/2013 and SIM from 2000 through 2012.

Although national data indicate an increase of about 2% in the detection rate of AIDS cases in the last 10 years in Brazil as a whole, there are significant differences in trends among the geographical regions of the country. In the period between 2003 and 2012, there was a decrease of 18.6% in the detection rate in the Southeast Region and 0.3% in the South, while in other regions there was an increase, with 92.7% in the North, 62.6% in the Northeast and 6.0% in the Midwest.

In 2012, the AIDS detection rate in men was 26.1/100,000 inhabitants and 14.5 in women, with a gender ratio of 1.7 cases in men for each case in women. The gender ratio has shown gradual changes over time; in 2005 it reached its lowest value (1.4), and since then it has shown an increase. (Graph 3).



Graph 3 - Detection rate of AIDS by sex and gender ratio. Brazil, 2003-2012



Considering the last 10 years, the age profile of AIDS cases has shifted to younger individuals, among both, men and women. Over the past 10 years (2003-2012) the highest rates of AIDS detection were observed among people aged 30 to 49 years old. However, there is a downward trend in the rate of 30 to 39 year-olds and a slight stabilization among 40 to 49 year-olds. Furthermore, there is an increasing trend in detection rates among young people aged 15 to 24 years and adults aged 50 years or more (Graph 4).

Graph 4 - Detection rate of AIDS in individuals aged 15 years or older, by age group and year of diagnosis. Brazil, 2003-2012





In 2012, the detection rate of AIDS among men and women was higher among those aged 35 to 39, 56.1 and 30.3 per 100,000 inhabitants, respectively. That same year, 475 AIDS cases were notified - in SINAN, stated in SIM and reported in Siscel/Siclom - in children under the age of 5, most of whom in the Southeast (32.8%), followed by the Northeast (25,7%), South (21.7%), North (14.9%) and Midwest (4.8%). The detection rate of AIDS cases in children under five years old is an indicator used in Brazil as a proxy to monitor the reduction of mother-to-child transmission of HIV^7 , and it was 3.4 per 100,000 inhabitants in 2012, with substantial differences between regions: 5.8 in the South; 4.4 in the North; 3.0 in the Southeast; 2.8 in the Northeast; and 2.1 in the Midwest.

⁷ PEREIRA, G. F. M.; CUNHA, A. R. C. da; MOREIRA, M. B. R. et al. Perspectivas para o controle da transmissão vertical do HIV no Brasil. In: *Saúde Brasil 2010. Uma análise da situação de saúde e de evidências selecionadas de impacto de ações de vigilância em saúde*. Brasília, 2011.

Over the past 10 years, Brazil observed a 35.8% decline in the detection rate of AIDS cases in children under five years old; however, among the Brazilian regions, the Southeast, Midwest and South regions exhibited decreases (respectively, about 55.2%, 51.2% and 41.4%), and the North and Northeast regions showed increases (respectively, approximately 41.9% and 3.7%) of that rate (Graph 5).

Graph 5 - Detection rate of AIDS cases in children under 5 years old by region of residence and year of diagnosis. Brazil, 2003-2012.



Source: Brazilian Ministry of Health/Health Surveillance Department/Department of STDs, AIDS and Viral Hepatitis. Note: (1) Cases reported through Sinan and Siscel/Siclom as of 30/June/2013 and SIM from 2000 through 2012.

Also in 2012, 4,118 AIDS cases were notified - in SINAN, stated in SIM and reported in Siscel/Siclom - in young people aged 15-24: Southeast Region (39.8%), followed by Northeast (20.3%); South (19.0%); North (12.4%) and Midwest (8.5%). The detection rate of AIDS cases in Brazil in this age group was 11.8 per 100,000 inhabitants, in 2012, with significant differences between regions: 16.5 in the South; 15.4 in the North; 13.3 in the Midwest; 8.1 in the Southeast; and 7 in the Northeast.

Brazil showed a decrease in the AIDS detection rate in young people, from 9.8 to 7.7 per 100,000 inhabitants from 2003 to 2006. From 2007 onwards this rate increased up to 11.8 per 100,000 inhabitants in 2012. In the last ten years, there was

a trend of increase in the detection rate among young people in Brazil in almost all regions - except in the South, which showed a 12% reduction approximately. The North and Northeast regions stand out, with increases of 120.0% and 72.3% respectively, in comparison between 2003 and 2012 (Graph 6).

Graph 6 - Detection rate of AIDS cases in young people aged 15-24 years by region of residence and year of diagnosis. Brazil, 2003-2012.





Note: (1) Cases reported through SINAN and Siscel/Siclom as of 30/June/2013 and SIM from 2000 through 2012.

The detection rate of AIDS cases in men (15-24 years of age) was 15.1/100,000 inhabitants and 8.6 in women (2012). The gender ratio in this age group decreased from the beginning of the epidemic until 2005, and even reversed its trend between 2000 and 2005 (0.9 cases in men for each case in women). Since 2008, the number of AIDS cases in young men has increased at a faster rate than among women, affecting the gender ratio. The gender ratio resumed its previous trend, reaching 1.9 cases in men for each case in women in 2012. It is worth noting that in the last 10 years, Brazil has shown an increase of 67.8% in the detection rate of AIDS cases in young males and a decrease of 12.2% among young females (Graph 7).

Graph 7 - Detection rate of AIDS cases in young people aged 15-24 years by gender and gender ratio. Brazil 2003 to 2012.



Source: Brazilian Ministry of Health/Health Surveillance Department/Department of STDs, AIDS and Viral Hepatitis. Note: (1) Cases reported through Sinan and Siscel/Siclom as of 30/June/2013 and SIM from 2000 through 2012.

Of the total of 16,464 AIDS cases reported in SINAN in 2012 in males aged 13 years or older, 18.3% do not have information on exposure category. Among those with that information (13,447), 32.0% were homosexual, 9.4% bisexual, 52.7% heterosexual, 5.2% people who inject drugs (IDU) and 0.7% were infected by mother-to-child transmission. Over the past 10 years, there was an increase of about 20% in the proportion of cases among gay men and other men who have sex with men (MSM) and a reduction of 3% in heterosexuals (Graph 8).

Of the total of 8,622 cases of AIDS in women reported in SINAN in 2012, 91.2% have information on exposure category. Of these, 96.6% are heterosexual; 2.5% IDU; 0.8% occurred through mother-to-child transmission; and 0.1% by transfusion. In both sexes, in the last 10 years, there has been a decrease in the proportion of AIDS cases in IDU of about 65% in men and 48% in women.



Graph 8 - Proportion of AIDS cases in men aged 13 or older reported in Sinan by exposure category and year of diagnosis. Brazil, 2003-2012.

Source: Brazilian Ministry of Health/Health Surveillance Department/Department of STDs, AIDS and Viral Hepatitis.

Note: (1) Cases reported through Sinan as of 30/June/2013.

Among the AIDS cases reported in SINAN whose exposure category was motherto-child transmission, in 2012, 41.8% of cases were identified in children under 5 years old. There has been a downward trend in the proportion of cases of motherto-child transmission observed in this age group over the past 10 years; in 2003, this same age group accounted for 63.8% of such cases. In contrast, during the same period, there was an increasing trend in the proportion of mother-to-child transmission cases in 14 year old or older people. Concerning race/color, excluding 6.5% of cases with unknown information, 46.3% of cases in SINAN, in 2012, were reported in white persons; 42.5% mixed race; 10.3% black; 0.5% yellow; and 0.4% indigenous people. According to gender, excluding 6.5% of cases with unknown information, in 2012, 48.4% of reported cases occurred in white men; 41.3% in mixed race men; 9.6% black; 0.5% yellow; and 0.3% indigenous men. Among women, excluding the 6.5% for whom there was no racial information, 45.6% of the cases occurred in white women; 41.4% in mixed race; 12.0% black; 0.5% yellow; and 0.5% in indigenous women. Thus, no difference between the profiles by race/color according to gender was observed.

Notwithstanding the concentration of cases among white people, a higher detection rate was found among black people in the last 10 years, for both genders. However, in the same period, there was a downward trend between this group and an increase among whites and those of mixed race (Graph 9).

Graph 9 - Detection rate of AIDS cases by race/color and year of diagnosis. Brazil, 2003-2012.



Source: Brazilian Ministry of Health/Health Surveillance Department/Department of STDs, AIDS and Viral Hepatitis.

Note: (1) Cases reported through Sinan as of 30/June/2013.

Regarding education, in 2012, 76.8% of individuals that reported through SINAN informed their education level. Of these, the majority had incomplete secondary school level (23.2%) and complete secondary school (21.3%). The same profile is observed when stratification by gender is done.

AIDS mortality in Brazil

The context of AIDS mortality in Brazil shows that, since the discovery of the first cases of AIDS (1980) until the year 2012, 265,698 deaths classified as having "disease caused by the HIV virus" as the underlying cause of death (ICD 10: B20-

B24). Of those deaths, more than half occurred in the Southeast (62.6%), a percentage that is explained by the high volume of cases in the region. The percentages for the South Region were 17.1%; in the Northeast 11.6%; in the Midwest 4.9%; and in the North 3.8%.

Considering the causes of deaths related to HIV/AIDS, there was an increase of 8,353 deaths. These deaths are distributed in different chapters of the International Classification of Diseases (ICD 10), though mainly concentrated in chapters related to neoplasms (Chapter II), circulatory diseases and digestive diseases, representing 25.7%; 20.1% and 15.5%, respectively.

The death rate of AIDS decreased in Brazil in the last 10 years. However, this trend is not observed in all regions, as the North and Northeast regions have showed increases over this period. In 2012, the standardized mortality rate in Brazil was 5.5 deaths/100,000 inhabitants, while between regions it was 5.6 for the North; 4.0 for the Northeast; 5.6 for the Southeast; 7.7 for the South; and 4.7 for the Midwest (Graph 10).

Graph 10 - Mortality rate (standardized ⁽¹⁾) due to AIDS by region of residence and year of death. Brazil, 2003-2012.



Source: MS/SVS/DASIS/Sistema de Informação de Mortalidade (Mortality Information System, SIM). Note: (1) Standardized coefficient by the direct method, based on the Brazilian population census of 2000.

Of the total AIDS deaths which occurred in Brazil as of 2012, 190,215 (71.6%) occurred among men and 75,371 (28.4%) among women. The gender ratio of AIDS deaths remained constant since 2008, at 1.9 deaths among men for each death among women. The mortality rate by gender has not shown great variations in the last 10 years. In 2012 this rate among men was 8.1/100,000 inhabitants and 4.2 among women (Graph 11).

Graph 11 - AIDS mortality rate by gender, gender ratio and year of death. Brazil, 2003-2012.



Source: MS/SVS/DASIS/Sistema de Informação de Mortalidade (Mortality Information System, SIM).

A review of the AIDS mortality profile by age group shows that the mortality rate in the last 10 years has been decreasing in several age groups, especially among younger people. The mortality rate among children under the age of 9 is the lowest among all other age groups, and from 2003 to 2012 it showed a decrease of approximately 50%, regardless of gender. Among men there was a reduction in the age groups up to 44 years, except the 10-14 and 15-19 years age groups. Among the groups showing an increase, the 55-59 years and 60 years old or more increased by 22.7% and 33.3%, respectively. Among women, there was a reduction in mortality in age groups up to 9 years old and 20-34 years old. The other groups showed an increase from 2003 to 2012 with emphasis on the group of 60 years old or more, which increased by 81.3%.

Regarding the race/color of individuals who died because of AIDS, it appears that the majority are still of white race/color in both sexes. However, there was a reduction in the percentage of deaths in this category and consequently an increase in the participation of black and mixed race individuals, also in both sexes. Moreover, it is noted that although the concentration of cases of death is among white people, black people of both sexes have the highest mortality rates for the entire period. In 2012, the rate among blacks was 25.6/100,000 inhabitants for males and 17.5/100,000 inhabitants for females, while among whites it was 16.0 and 7.4/100,000 for the respective genders.

HIV in pregnant women

With regard to HIV infection in pregnant women in the last sentinel study in pregnant women in 2010, the HIV prevalence was 0.38%. Applying this prevalence to the estimated number of pregnant women in 2012, there was a total of 12,177 HIV-positive pregnant women. Comparing the estimated data with the number of cases reported in 2012 (7,097 HIV+ pregnant women), it is estimated that HIV surveillance among pregnant women reached 58.3% of expected cases.

Between 2000 and June 2013 a total of 77,066 cases of HIV in pregnant women were notified in SINAN, most in the Southeast Region (41.7%), followed by the South (31.3%); Northeast (14.9%); North (6.3%) and Midwest (5.7%). In 2012, the number of cases was 7,097 in Brazil: 2,478 (34.9%) in the Southeast; 2,200 (31.0%) in the South, 1,244 (17.5%) in the Northeast; 750 (10.6%) in the North; and 425 (6.0%) in the Midwest.

The detection rate of HIV in pregnant women in Brazil, in 2012, amounted to 2.4 cases per 1,000 live births. The only region with a detection rate above the national average was the South Region, with 5.8 cases per 1,000 live births. In the 2003-2012 period, Brazil showed a 25.4% increase in the detection rate of HIV in pregnant women. For the regions, there was a reduction of 4.3% in the Southeast and an increase in other regions, namely 380.0% for the North, 66.7% for the Northeast, 26.7% for the Midwest and 23.4% for the South (Graph 12).

Graph 12 - Detection rate of HIV in pregnant women (per 1,000 live births) by region of residence and year of birth. Brazil, 2003-2012.



Source: Brazilian Ministry of Health/Health Surveillance Department/Department of STDs, AIDS and Viral Hepatitis.

Overall, the highest proportion of pregnant women infected with HIV in 2012 was concentrated in the ages between 20-29 (50.7%) in two distinct ranges of schooling - incomplete 6th to 9th grade (32.7%) and completed high school (19.1%) - and races/colors whites (41.6%) and mixed race (42.0%). The completeness of these fields was 99.2%, 80.6% and 94.3%, respectively.

Knowledge, attitudes and practices related to HIV / AIDS

In general terms, we can say that the Brazilian population is well informed about how the HIV transmission occurs. In 2013, approximately 97% of the population aged 15 to 64 years old agreed with the statement that condom use is the best way to avoid HIV infection, similar to the proportion observed in 2004 and 2008. However, considering the overall indicator of knowledge⁸, which measures knowledge related to major misconceptions about HIV transmission was about 50% in 2013.

⁸ When all of the following questions are answered correctly: a healthy-looking person can be infected with HIV; condom use is the best way to prevent HIV infection; if a person has sex with only faithful and uninfected partner this reduces the risk of transmission of the AIDS virus; a person can be infected by sharing tools for drug use, such as syringes, needles, pipes, tin cans and straws with others; a person cannot be infected with the AIDS virus by sharing cutlery, glasses, or meals.

In 2013, a quarter of the Brazilian population initiated sexual activity before the age of 15, 35% among young people 15-19 years. Moreover, almost 30% of the population aged 15 to 49 years old reported having multiple partners(having more than one sexual partner in the last 12 months): 47% of men and 18% of women.

The percentages of individuals who reported using condoms regularly are not yet satisfactory. Condom use in the last sexual intercourse in the last 12 months was 39% among people between 15-64 years of age. However, considering the use of condoms in all sexual relations in the last 12 months, this proportion drops to 20% with a steady partner and reaches 55% with a casual partner. Considering condom use during the last sexual relation of those individuals who had more than one sexual partner in the last 12 months, this proportion reached 64% in the population aged 15 to 49 years old. It's important to highlight the gender differences in this indicator: while almost 83% of males from 15-19 years old who had more than one sexual partner in the last year declared condom use at their last sexual intercourse, the comparable proportion among women was 66%.

Condom use observed in key populations is higher than that observed in the general population. About 60% of gay men and other MSM reported having used condom during their last sexual intercourse in the last 12 months. Among IDUs this proportion was almost 41%. Among female commercial sex workers, condom use at last sexual encounter with client reaches more than 90%.

HIV testing

The coverage of at least one HIV test in the Brazilian sexually active population aged 15 to 64 years old increased from approximately 28% in 2004 to almost 37% in 2013: an increase of 32%. However, testing coverage drops to 13% (9.7% among men and 15.4% among women) when considering individuals from 15 to 49 years old who have had at least one HIV test in the past 12 months and know the result.
Graph 13 - Coverage of HIV testing at least once at any time in the general population and key populations in Brazil.



Source: Brazilian Ministry of Health/Health Surveillance Department/Department of STDs, AIDS and Viral Hepatitis.

Respondents in key populations are referred to HIV testing at least once in life more often than the general Brazilian population (Graph 1). However, when considering an HIV test in the last 12 months with knowledge of the results, the proportions are similar, except among gay men and other MSM whose HIV test coverage (19%) was twice that found among men in general. Among female commercial sex workers, HIV testing coverage in the past 12 months was 18% and among the IDU it was 15%.

Access to prevention programs

One third of the population received condoms free of charge in the public health services, non-governmental organizations (NGOs) or other institutions, and this proportion reaches 70% among gay men and other MSM and 77% among female commercial sex workers.

Regarding testing services, 51% of individuals aged 15 to 64 know some place where HIV testing is done free of charge. A similar proportion was found among gay men and other MSM (50%). Among female commercial sex workers, the observed proportion was 57%.

The knowledge of a place to get tested for HIV and accessibility to free condoms was considered to be an indicator of access to prevention programs. Therefore, 16% of individuals aged 15 to 64 reported having accessed preventive programs - 20% among men and 8% among women. Access to condoms by female commercial sex workers (47%) was five times higher than among women in the general population. Among gay men and other MSM this proportion was 39%, more than twice the one found among heterosexual men.

III) National Response

III.1) Prevention

The recent changes in the policy and management of the HIV/AIDS epidemic in Brazil are significantly transforming the prospects in the field of prevention. Male and female condoms and lubricant gel continue to be distributed, as well as supplies for people who use drugs; however, the expansion of rapid testing, especially among key populations, is increasingly seen as a priority, combined with the provision of pre and post-exposure prophylaxis.

One of these recent approaches is the treatment as prevention (TasP), which impacts the way of understanding the concept and practice of prevention. Efforts include the diversification of methods, contexts of testing in the community, as well as expanding the coverage of health services in primary care. The historic partnership between civil society and the government, characteristic in the Brazilian response, is once again shown to be crucial. Representatives of civil society are being trained in direct intervention to scale up HIV testing, explore new forms of leadership with which they always acted with the federal government.

While there is a political willingness in the Brazilian government to support civil society organizations actions, the Department of STD, AIDS and Viral Hepatitis has been working on the creation of a Fund for Supporting Civil Society Organizations working in the fight against the AIDS epidemic and viral hepatitis, entitled: "FUNDO POSITHIVO" (POSITIVE FUND). This Fund aims at contributing to the financial sustainability of these organizations. The intention is that it will be established through initial allocation of financial resources from the federal government and supplemented later by donations from multiple sources, including the private sector.

The Brazilian AIDS response in the field of Human Rights has been promoting the visibility of health as a right and address stigma and discrimination, particularly related to key populations and people living with HIV and AIDS. The violence that translates into stigma and discrimination is still present in the Brazilian reality, despite many legal and cultural achievements that have made the fight against the epidemic a great example to the world. With this in mind, the DDAHV supports community projects with civil society, and strengthens dialogue with the Human Rights Office of the Presidency Cabinet, the Ministry of Justice and the National Congress. Several initiatives are being supported in this line of work.

Strengthening dialogue with different actors of civil society

- To support the activities conducted by civil society organizations, the Department of STD/AIDS and Viral Hepatitis is continuing the project "Quero Fazer" (I want to be tested) (testing gays and transvestites with the use of a mobile unit), already deployed in five cities, as a result of the partnership with the United States Agency for International Development USAID and the NGO EPAH, from São Paulo. This support has been consolidated through the investment of technical and financial resources of the cities of Recife, Rio de Janeiro, Brasília, São Paulo and Fortaleza, which are already part of the Project.
- With regard to decentralized actions, the DDAHV offers continued technical and political support to states and municipalities to implement plans for fighting the epidemic in specific populations, namely: National plan do fight the AIDS epidemic and STI among gays, MSM and transvestitis; and the Comprehensive Plan to Combat the Feminization of the STDs and the AIDS Epidemic. These plans establish guidelines, and a set of intersectoral actions geared towards prevention of STDs, AIDS and Viral Hepatitis. During 2012-2013, 144,4 million male condoms and 1,08 million female condoms and 5,7 million units of lubricant were distributed to these populations.

 At the end of the second half of 2012, the IX Brazilian Congress of STD and AIDS Prevention, the most important event in the area in Brazil, gathered approximately 5,000 people. During three days the audience debated the topic of the Health System and Community Networks. In parallel, the event also hosted the II Brazilian Congress of Prevention of Viral Hepatitis, the IV Latin American and Caribbean Forum on HIV/AIDS and STDs; and the V Community Forum which put together key actors from Latin America and Caribbean regions.

Expansion of testing, focusing on key populations

- In total, 1,123 health professionals were trained in rapid HIV testing and counseling. Thirty-three non-governmental organizations were trained to develop strategic projects for oral fluid rapid testing. This strategy covers 21 states and 30 municipalities. The documents HIV Rapid Testing Manual and Guidelines for Syphilis Rapid Testing in Primary Care were also designed.
- The joint efforts towards the elimination of HIV mother-to-child transmission and congenital syphilis has as its core, the actions of the "Medical Offices in the Street" a mobile team that seeks to meet the needs and demands of homeless populations and the "Rede Cegonha Program" obstetric and neonatal care. For the feasibility of these actions, the Department of STD/AIDS and Viral Hepatitis works together with the Department of Primary Care and the Department of Strategic and Programmatic Actions within the Brazilian Ministry of Health.
- The expansion of testing and care to the native Indian population is becoming possible through integrated actions with the Special Indigenous Health Districts, and the joint actions between the Department of STD/AIDS and Viral Hepatitis and the Indigenous Population Office within the Brazilian Ministry of Health.

- In 2012-2013, 7,040,487 rapid tests for syphilis and 8,479,885 for HIV to the Rede Cegonha Program (2,827,790) and to services targeting native Indian populations (120,937) were distributed.
- It is also worth highlighting the partnership with the Federal University of Bahia and the São Paulo city government for the implementation of the Oral Fluid Rapid Testing Strategic Plan for reduction of mother-to-child transmission of HIV, syphilis and hepatitis B in people who smoke crack.
- The Department of STD/AIDS and Viral Hepatitis is implementing joint actions with the National Tuberculosis Control Programme, with regard to the strengthening the comprehensive care services for TB/HIV co-infection, including expansion of HIV testing, TB prevention and organization of care networks for early diagnosis.

Strengthening the prevention policy

- The Department of STD/AIDS and Viral Hepatitis is supporting the implementation of community prevention projects in partnership with civil society, in the following areas: strengthening the organization and policy for people living with HIV and priority segments; strengthening the prevention of STD/AIDS among gay men and fighting homophobia; legal counseling projects to strengthen promotion of and advocate for human rights related to the HIV, AIDS and viral hepatitis; prevention network projects in STD/AIDS and viral hepatitis with people in situations of greater vulnerability; promotion and prevention actions for STDs, AIDS and viral hepatitis.
- The implementation of the ongoing National Policy on Comprehensive Health Care for Prison Populations, launched in January 2014, aims to ensure access to the Unified Health System for this population. Within the

National Healthcare Policy for the Homeless Population, regional management workshops were carried out, targeting information on HIV testing and provision of supplies to prevent STDs, AIDS and viral hepatitis, in order to support the implementation of its Operational Plan for 2012-2015.. The National Policy on Comprehensive Health for Lesbian, Gay, Bisexual and Transgender People was drafted in partnership with the Office of Strategic and Participative Management, of the Ministry of Health.

• The DDAHV has led mobilization of national syphilis testing services, with 103,000 rapid tests made available in all 27 Brazilian state capitals. As an example, there is the mobilization for Hepatitis B and C testing in the Belo Monte Dam site in the state of Pará, where 6,111 workers uptake testing. In addition, health teams were trained for implementing HIV diagnosis, as well as for syphilis, hepatitis B and C in the routine of prison units. The Department of STD/AIDS and Viral Hepatitis has been working closely with the Department of Strategic and Programmatic Actions within the Brazilian Ministry of Health.

III.2) Care and Treatment

Recommendations for antiretroviral therapy (ART) have undergone constant revisions in recent years. Beginning in 2012, Maraviroc was incorporated into the Health System antiretroviral list and the recommendation to start treatment was extended to patients with CD4 counts between 350 and 500 cells/mm³. Furthermore, patients in serodiscordant relationships could initiate ART to reduce transmissibility.

But it was in December 2013 that the concept of treatment as a prevention tool was, in fact, embedded into national treatment recommendations, to the extent that treatment for all people living with HIV, regardless of CD4 cell levels is recommended. Brazil is the first developing country to adopt treatment for all.

Implementation of early diagnosis

Earlier treatment initiation is essential to reduce impacts on clinical morbidity and mortality related to HIV infection and co-infections such as tuberculosis, in addition to providing a reduction in collective viral load, and consequently in sexual and mother-to-child transmissions. The new recommendations were included in the Clinical Protocol and Therapeutic Guidelines for HIV Infection Management in Adults. This protocol – so called PCDT in Portuguese - was launched on December 1, 2013 and published as a government decree, which must be followed by managers and professionals within the Brazilian SUS.

For the first time, this document brought a clear definition of first and second-line treatment, so that the system used for dispensing antiretroviral started to prevent the supply of regimens not provided for in the PCDT if they are not clearly justified in situations of contraindication to recommended preferential regimens.

Before the release of the final version, the PCDT was placed for public consultation on the Ministry of Health website, over 30 days. Many suggestions from various sectors of the Brazilian society were made, and even some from foreign countries, and were considered in the final review of the document.

An online version of the PCDT was created, so that future revisions may generate real time changes in the document. Moreover, PCDT apps for smartphones and tablets were developed (for iOS and Android platforms), which will be available as of April 2014 to any healthcare professional responsible for antiretroviral drug management.

Expansion of antiretroviral coverage

For the satisfactory implementation of the new treatment recommendations, it is necessary to expand the coverage of antiretroviral treatment in Brazil. Thus, using information systems, in 2013 a listing of patients followed in health services was compiled, showing those with less than 500 CD4 cells/mm³ who had not yet started treatment. A meeting with state and municipal administrators was conducted, to present this listing of patients and request that they be placed on treatment as soon as possible in 2014. The inclusion of these patients to treatment will be monitored by the federal government every 3 months.

With the new recommendations and the treatment of patients being followed-up in the health services and who already have CD4 counts below 500 cells/mm³, it is expected that at least 100,000 patients will initiate antiretroviral therapy in 2014, representing an enlargement of expansion of people on treatment never seen since the publication of the law of universal access to antiretroviral drugs in Brazil, in 1996, 18 years ago.

New structure for the management of HIV in primary care

A comprehensive dialogue was undertaken in 2013 with various sectors of society on improving access to and quality of HIV management in primary care. In February 2014, a working group for the development of implementation strategies for the management of HIV in primary care was established from successful experiences in some Brazilian cities. These strategies should be implemented in the Brazilian state capitals until the end of 2014.

In Brazil, a network of specialized services in the management of HIV infection was structured: the Specialized Care Services (SAE). Currently, there are 724 SAEs, located in all Brazilian states. Despite providing quality care to people living with HIV, many specialized services, especially those located in state capitals, are overburdened and are not able to absorb the demand for new patients or even patients who are already being followed up.

Moreover, the evolution of HIV infection treatment, particularly the establishment of highly active triple therapy for all patients, significantly modified the natural history of HIV infection and the complexity of its management, in such a way that only few specific situations, such as co-infections, presence of opportunistic infections, viral resistance, etc., require truly specialized attention.

New generations protected from AIDS

Various measures and actions have been implemented with a focus on HIV prevention and AIDS treatment for children and adolescents. In 2012, Brazil adopted the recommendation B+, in which pregnant women should start treatment regardless of CD4 levels, and should not discontinue therapy after childbirth.

In 2013 an updated version of the Guidelines of Comprehensive Care to Adolescents and Young People Living with HIV and AIDS – so called PCDT for Children and Adolescents was published. The PCDT for Children and Adolescents also underwent a public consultation period of 30 days and is in final review for publication by May 2014. The main updates are: a clear definition of first and second line treatment regimens; the recommendation to start treatment in children older than 5 years old with CD4 below 500 cells/mm³; and indication to associate nevirapine and zidovudine in specific prophylaxis situations of children exposure to HIV.

The PCDT for Management of HIV in Children and Adolescents will have an online version and an app for tablets and smartphones.

Mother-to-child transmission of HIV has undergone major reduction in recent years; the AIDS detection rate in children under 5 years old, which was 1,083 cases in 2002 decreased to 475 cases in 2012. Currently, the rate of HIV mother-to-child transmission is around 4,4% in children followed up by the Unified Health System with significant regional differences. Major challenges such as poor access to health services in regions like the Amazon, and low adherence to prophylactic measures in particular situations, such as crack and other drugs use, hinder the elimination of HIV mother-to-child transmission cases at a national level.

Brazil has the overall goal of eliminating mother-to-child transmission of HIV and syphilis by 2015. Several strategies are being implemented to achieve this goal:

- Project for improving strategies on mother-to-child transmission of HIV, syphilis and hepatitis B in the Amazon and Brazilian semiarid regions. In this project, a partnership with UNICEF, health services management aspects in the prevention of mother-to-child transmission are presented to state managers, as well as the historical difficulties of access to existing services in these locations. Based on this articulation, state managers seek to organize actions to prevent mother-to-child transmission in their health services networks.
- Advisory Committee on Mother-to-Child Transmission Formed in 2013, the Committee of experts began the process of reviewing national recommendations. For the first time, the recommendations regarding mother-to-child transmission of HIV, syphilis and hepatitis B will be published in a single document, in June 2014.
- Significant expansion of services in the states From 2011 to 2013, some states have significantly expanded the number of services that offer actions to prevent mother-to-child transmission for pregnant women and children, such as the states of Ceará, Pará and Tocantins. For 2014, the implementation of this project is expected to reach other states that have serious problems of access to health services, such as Amazonas. Resulting from that work in partnership with UNICEF, is the publication of the document "Guidelines for Qualification of Care Lines of Mother-to-Child Transmission of HIV, Hepatitis B and Syphilis) in February 2014, a guide for managers and health professionals to better qualify health services as more effective in reducing mother-to-child transmission of HIV, syphilis and Hepatitis B.

Municipal Committees in the Fight Against HIV and Syphilis Mother-to-Child Transmission

In recent years, a few major Brazilian cities like São Paulo and Porto Alegre instituted the so-called Mother-to-child Transmission Committees, which are composed of experts from municipal health departments in the areas of epidemiology, surveillance and care. The Committees are responsible for investigating new infections through mother-to-child transmission, on a case by case basis, and also for promoting discussion on the possible failures in the prevention of mother-to-child transmission with all the services involved in the antenatal/labor/postpartum care of women and exposed children. At the end of 2013, it was determined that the federal government will mobilize the Brazilian state capitals, which comprise the majority of cases of HIV and syphilis mother-tochild transmission , so that by the end of 2014 at least 10 capitals will have functional committees.

The Challenge of TB-HIV Co-infection

Historically, tuberculosis and HIV infections are managed at distinct health services in Brazil. For some time, however, strategies developed in conjunction with the National TB Control Programme have sought to establish the management of TB-HIV coinfection in the same service.

An important step in this direction occurred in 2011 when the units that distribute ARVs started to also dispense TB medicines. In addition, the same information system which supports the ARV logistics also register TB drugs supply data. Currently, eleven priority municipalities have organized their service networks so that patients with TB-HIV co-infection are treated for both infections at the same service. The goal for 2014 is to implement this process in all remaining country capitals.

Living with AIDS and Quality of Life

The Guidelines of Mental Health Care in STD/AIDS Services was published by the Ministry of Health, in 2012. This is the first document concerning to mental health

of people living with HIV, dedicated to health professionals. The The Handbook for health professionals on HIV lipodystrophy syndrome published in 2011, sought to present in a simplified manner the main aspects related to lipodystrophy syndrome for professionals in the public health services.

Physical educators in four Brazilian state capitals were trained in physical exercise for people living with HIV using the Recommendations of Physical Activity for People Living with HIV and AIDS, published in 2012.

III.3) Sustainability of the Brazilian Response

The information generated to account for the expense of the Brazilian response to the HIV epidemic in the country was obtained from budget of the Health Surveillance Office of the Ministry of Health, which consists of a fixed and a variable minimum levels. The minimum fixed level is responsible for financing all health surveillance actions and has universal coverage, i.e. each state and municipality can access these resources based on population criteria.

The minimum variable is intended to finance specific and selective actions of interest to public health, so its scope is restricted and subjected to epidemiological criteria. The budget of the DDAHV follows this rational, and is organized into three components: a) component of health surveillance, promotion and prevention: aiming to provide the resources for epidemiological surveillance and prevention, acquisition of prevention supplies, diagnostic tests and clinical monitoring of patients, maintenance of technical and managerial structure of the central core of the Department; b) component of incentive for decentralized funding actions taken by states and municipalities and c) component of funding for ARV drugs.

The Brazilian Unified Health System carries out health policy in an integrated, regionalized and decentralized manner. Its budget is shared between the federal entities that mobilize around 159.2 billion, of which 39.9% are funds derived from Union funding sources and 60.1% originate from states and municipalities.

Year	Incentive	Prevention and Promotion	ARV	
2003	68,000,000.00	70,000,000.00	551,000,000.00	
2004	116,000,000.00	139,730,800.00	624,547,958.88	
2005	124,265,000.00	132,792,000.00	684,479,443.55	
2006	135,500,000.00	209,857,000.00	960,000,000.00	
2007	141,500,000.00	236,892,500.00	984,000,000.00	
2008	145,750,000.00	181,705,867.00	1,013,300,000.00	
2009	155,952,500.00	197,259,095.00	1,084,100,000.00	
2010	155,952,500.00	196,918,412.00	784,100,000.00	
2011	160,000,000.00	197,140,000.00	846,720,000.00	
2012	168,000,000.00	227,500,000.00	788,000,000.00	
2013	168,000,000.00	232,000,000.00	770,200,000.00	

Table 7 - Budget of the Departament of STD/Aids - 2003-2013

To answer the "Global AIDS Response Progress Reporting" (GARPR) request, the budget of the Department of STD/AIDS and Viral Hepatitis was broken down, as far as possible, to meet the reporting requirements in large groups and subgroups of actions. The information was obtained from the currently available management information systems databases, notably the Project Monitoring System (SIMOP), Information System on AIDS (SIAIDS) and Actions and Goals Program (PAM), to

obtain decentralized information and spreadsheets tracking budget execution at the central level.

Spending on the response to HIV/AIDS accounts for 1.2% of the total expenditure in the health sector. Total expenditure on the epidemic, involving all forms of funding, is equivalent to 1.6% of the budget of the Ministry of Health. Between 2010 and 2013, there was an increase in spending on the HIV/AIDS response, from 1.3 billion to 1.7 billion reais. This increase is associated with the expansion of sector policies in the social area, such as funding initiatives to combat crack use, affirmative action in the area of human rights and investments made in the incorporation of new technologies for diagnosis and treatment

GARPR: Consolidated by component					
Prevention	R\$ 446,848,241.00				
Care and Treatment	R\$ 960,950,857.22				
Programme Management	R\$ 214,230,212.47				
Enabling Environment	R\$ 63,604,227.95				
Research	R\$ 19,764,198.95				
Total	R\$ 1,705,397,737.59				

Table 8 - Total expenditure by GARPR component

Concerning the prevention component, the option was to select sources and organize data from three references: a) the departmental budget itself; b) expenditure on advertising and campaigns, with funds derived from the budget share of the Health Surveillance Department of the Brazilian Ministry of Health c) expenses of programs for quality of blood and health of schoolchildren, obtained from the coordination of the programs of the different areas within the Ministry of Health. The breakdown of the information for these two last cases was not possible, in part because the programs did not have the values classified by condition. Resources to maintain the quality of the blood are transferred to the entire network of blood centers in the country and to health services that use such blood products. The amount was not disaggregated for HIV because the quality system is carried out from a panel that includes other blood borne diseases. In this case, we chose to

include in the GARPR item "blood quality" the total amount of resources devoted to maintaining the quality of the blood in transfusion services.

In addition, the resources allocated to school health programs are transferred to states and municipalities and include two components. The first component consists of assistance actions and the second is focused on the financing of sexual and reproductive health promotion and violence prevention. There is no consolidated spending data on the specific population of young people who are out of school. This population is included in the financing of actions that make up the policy of comprehensive health care to children, adolescents and young people and programmatic actions of the national youth policy.

On the other hand, spending on key populations has significantly increased, both from federal and decentralized resources. The year 2013 allocated and paid approximately 8.7 million reaisfrom the federal budget and 8.4 million reais from decentralized sources. Considering that only 10 states presented the declaration, it can be assumed that the decentralized value is likely to be much higher. Importantly, the total federal expenditure with preventive actions implemented by non-governmental organizations also increased compared with previous years; in 2013 it was 22.4 million reais for preventive actions carried out by NGOs. Much of the support and funding of non-governmental organizations comes from the public sector.

Table 9 - GARPR -	- prevention	component
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		Public/Sub-	
Prevention	Public/Central	National	Subtotal
I.01 Communication	12,500,000.00		12,500,000.00
I.04 Risk Reduction	1,850,000.00		1,850,000.00
I.05 Youth out of school			
I.06 Youth attending school		23,787,258.15	23,787,258.15
I.07 People living with HIV/AIDS	2,332,103.28		2,332,103.28
I.08 Sex workers	591,316.00		591,316.00
I.09 MSM	3,074,637.92		3,074,637.92
I.10 Drugs	859,756.00	36,198,869.39	37,058,625.39
I.11 Workplace			
I.13 Male Condoms	50,756,378.61	3,101,301.88	53,857,680.49
I.14 Female Condoms		1,916,000.00	1,916,000.00
I.16 STIs		39,417,645.05	39,417,645.05
I.17 Mother-to-child Transmission		337,959.14	337,959.14
I.19 Blood Safety		256,381,950.00	256,381,950.00
I.22 PEP			
I.23 PrEP			
I.98 Non-Disaggregated Prevention			
Activity	10,155,178.98		
I.99 Unclassified Prevention Activity	3,587,886.60		
SUBTOTAL	85,707,257.39	361,140,983.61	433,105,175.42

In short, the expenditure in the prevention component grew significantly between 2006 and 2013. In 2006, spending on prevention accounted for 6% of total spending, and today this spendingis four times higher, as it can be seen in the graph 9.



Graph 14 – UNGASS 2006 – 2010 and 2013 – by category

Source: Brazilian Ministry of Health/Health Surveillance Department/Department of STDs, AIDS and Viral Hepatitis.

The Brazilian response also depends on funding by other levels of the health system, whose budget is not incorporated into the amount of the budget for health surveillance. This way, the AIDS care spending data declared in the GARPR, other than with ARV drugs, were obtained from the regulation system, comprised of the Fund for Strategic Actions and Compensation, Medium and High Complexity Financing Actions, and the Primary Care Budget.

This information was obtained through the data source of the Information Technology Department of the Unified Health System (DATASUS), the Hospital Information System database, the Outpatient Information System and the Primary Care Information System. These systems have provided expenditures information on hospitalizations, outpatient care and all current expenditures related to diagnosis and testing for patients clinical monitoring. In general, these expenditures are composed of services that encompass the states and municipalities health care network, but also by the federal departments themselves. The Ministry of Health is responsible for centralized procurement of ARV drugs, and part of laboratory supplies for diagnosis and patients clinical monitoring. States and municipalities are responsible for opportunistic infections and other STD drugs purchase.

The item which deals with management and coordination of the response also included information on expeditures of the U.S. Government technical cooperation through the CDC and USAID local offices, representing 2.53% of total expenditures made by the Brazilian government in the same component.

The data sources for obtaining information related to actions for the protection and promotion of human rights and gender equality are on the "transparency web portal" that provides data on expenditures made directly by the federal government and transfers to states and municipalities. In this item, a search was done for the type of programmatic action, vulnerable population and government agency responsible for implementation.

Spending on human rights included: a) financing of reference centers for human rights; b) spending with actions that promote rights, such as actions directed at the LGBT population; c) promotion of rights for populations in vulnerable situations.

As for spending on gender equality, this covers information obtained from programs conducted by the Department of Human Rights (SDH) and the Office on Women's Policies (SPM) with respect to actions geared towards the promotion of gender equality and combating violence against women. The programs do not disaggregate information for gender inequality among women living with HIV/AIDS.

The information to measure social spending on pensions and sick leaves is not available for 2013, but by observing the variation from the data in the 2010 report, we can estimate that the growth in the number of retirements may reach 40 million, while spending on sick leave tends to decrease when compared to the previous period.

The survey on spending for the category "research" took into account the information from bids for research funding from the Ministry of Health, not

including information from the C&T system (CNPq, CAPES, FINEP, BNDS and State Foundations for Research Support) for HIV/AIDS, so the value of research spending is underestimated.

The Department is preparing a detailed study of all expenses related to the Brazilian response to the HIV/AIDS epidemic in Brazil, and the results are expected to be included in GARPR 2015. That report will present more detailed and accurate information from those presented here.

III.4) Monitoring and Evaluation

Nearly 40% of the sexually active population in Brazil has uptaken at least one HIV testing (Pascom and Szwarcwald, 2010), a similar percentage of developed countries (CDC, 2011). Of the 718,000 individuals living with HIV and AIDS in Brazil, it is estimated that 80% (574,000) have been diagnosed (Graph 15), and almost 30% of them were diagnosed with CD4 counts less than 200 cells per mm³ (Graph 16).



Graph 15 - Stages of continued care for people living with HIV/AIDS in Brazil in 2012 (in thousands).

Source: Brazilian Ministry of Health/Health Surveillance Department/Department of STDs, AIDS and Viral Hepatitis.

Graph 16 - Distribution of PLWHA by value of the first CD4 count in treatmentnaïve patients per year of collection. Brazil, 2006-2013.



Source: Brazilian Ministry of Health/Health Surveillance Department/Department of STDs, AIDS and Viral Hepatitis.

The late diagnosis has presented the worst rates in the North and Northeast regions, in contrast to the South and Southeast, following the pattern of social inequalities in the country. While the CD4 median of those patients that never undergone treatment in the North was 329 cells per mm³, in the Southeast region the observed value was 403 cells per mm³ (22% higher) (Graph 17).

Graph 17 - Evolution of the first CD4 value in treatment-naïve patients by region of residence, per year of collection. Brazil, 2006-2013



Source: Brazilian Ministry of Health/Health Surveillance Department/Department of STDs, AIDS and Viral Hepatitis.

Also according to Graph 1, the analysis of the PLWHA continuum of care shows that approximately 74% (531,000) of HIV-infected individuals have been linked to health care services and have had at least one laboratory examination of CD4 or viral load, or had dispensed ARVs in 2012. Almost 70% of PLWHA linked to public health services in 2012 were concentrated in 130 large municipalities (Figure 4). With regard to retention, about 61% (436,000) of PLWHA were retained in the health system for laboratory monitoring of HIV infection (CD4 or VL) or ARV treatment during the analyzed period.



Figure 4 - Spatial distribution of PLWHA linked to the public health service in 2012

Source: Brazilian Ministry of Health/Health Surveillance Department/Department of STDs, AIDS and Viral Hepatitis.

Among PLWHA, 44% (313,000) were on ART in 2012 (Graph 1), a figure that more than doubled in the last 10 years, from 125,175 in 2002 to 352,617 in 2013.



Graph 18 - Number of PLWHA on ART per year. Brazil, 1999-2013

Source: Brazilian Ministry of Health/Health Surveillance Department/Department of STDs, AIDS and Viral Hepatitis.

Despite the significant increase observed in the number of individuals on ART, a considerable amount of PLWHA with CD4 counts below 500 cells per mm³ are not being treated. Graph 5 shows that in 2012, while 108 thousand individuals had less than 350 CD4 cells per mm³, 70 000 (65%) were in treatment, which indicates a gap of 38,000 individuals. When considering the cutoff for treatment determined in the Brazilian Consensus, launched in September 2012, 500 cells per mm³, the gap increases to 63,000 individuals.



Graph 19 - Evolution of the number of PLWHA with CD4 counts under 350 cells per mm³ and number of PLWHA with the same CD4 on ART. Brazil, 2008-2012

Source: Brazilian Ministry of Health/Health Surveillance Department/Department of STDs, AIDS and Viral Hepatitis.

Out of approximately 50,000 PLWHA who started ART in 2012, 86% remained on treatment a year later. Two years after starting treatment retention was approximately 80%, and after five years of ART initiation it was 75%.

Around 33% (236,000) of the PLWHA had viral load below 50 copies of virus per ml of blood. In 2013, approximately 75% of individuals on ART had undetectable viral load, whereas in 2009 this number was 72% (Graph 20). Note also that in 2013, 87% of individuals on ART had viral load below 1,000 copies per ml and 87% had viral suppression 12 months after starting treatment.

Graph 20 - Evolution of the number of PLWHA with CD4 counts under 350 cells per $\rm mm^3$ and number of PLWHA with the same CD4 on ART. Brazil, 2008-2012



Source: Brazilian Ministry of Health/Health Surveillance Department/Department of STDs, AIDS and Viral Hepatitis.

The responsibilities of the Office of International Cooperation (ACI) of the Department of STD, AIDS and Viral Hepatitis are stipulated in Article 41, item IV of Decree No. 7.530/2011 which defines that its attribution is to "provide technical assistance and establish national and international cooperation". The ACI works in conjunction with the different areas of the DDAHV itself, the Office of International Affairs of the Minister's cabinet (AISA), and other areas of the Ministry of Health. The Ministry of Foreign Affairs, through the Brazilian Cooperation Agency, as well as other ministries, government and non-governmental institutions are the main ACI external partners.

Moreover, the ACI works in collaboration and coordination with national AIDS programs of different countries; the United Nations System(UNAIDS, PAHO/WHO, UNESCO, UNICEF, UNODC, ILO, UNFPA and UNIFEM); formal regional blocks such as Mercosur, the CPLP (Community of Portuguese Language Countries); and bilateral cooperating agencies.

This report was organized by the Office of International Cooperation to record the main activities of the international agenda of 2013 from the Department of STD, AIDS and Viral Hepatitis, in collaboration with various areas of the DDAHV partners within the Ministry and external actors.

A) Brazil-France Cooperation

the Agreement on Scientific and Technical Cooperation Brazil-France is a bilateral cooperation agreement, from 1968, which falls under Brazilian foreign policy on science and technology defined by the Ministry of Foreign Affairs. After 1989, it was included specific parameters for the Brazil-France cooperation in the area of HIV/AIDS epidemic, defining the following topics of interest: personnel training, exchanges of experience through exchange seminars and specialist visits.

Since 1990, when the first event resulting from this cooperation was completed, a total of 20 seminars were held, addressing issues related to common needs and priorities for cooperation by the two countries: Pediatric AIDS (1990); Opportunistic infections and AIDS (1991); AIDS Prevention: from research to action (1992); Diversification of HIV patient care (1993); Development process of HIV vaccines: problems and benefits (1994); Management and care: care services for AIDS (1995); Clinical trials within the context of HIV/AIDS (1996); AIDS and women (1997); Health professionals in the management of HIV infection: Psychosocial and technical aspects (1998); Mother-to-child transmission of HIV (1999); AIDS and harm reduction: paradigm shift in drug policy (2000); New Challenges in the Prevention of the HIV/AIDS Epidemic in Men who have Sex with Men (2001); Access to Antiretroviral Treatment: economic, clinical and behavioral aspects (2002), HIV and Viral Hepatitis Surveillance : Perspectives and Strategies (2003); Surveillance of HIV and Viral Hepatitis Infections: Perspectives and Strategies (2004); Conception, birth and life: challenges in coping with HIV and syphilis (2005); Clinical Management (2006); and Discrimination and Human Rights: 25 years after the emergence of HIV/AIDS (2007).

In 2013, the 20th edition of the Brazil-France Seminar promoted the debate on the use of antiretroviral drugs as a prevention strategy against HIV/AIDS (TASP), bringing together about 60 Brazilian and French participants

During the 2013 Seminar, activists, health professionals, managers and specialists in HIV/AIDS/Viral Hepatitis, ex-trainees of the Technical Cooperation Programme and representatives of civil society were able to share their experiences on preexposure prophylaxis (PREP) for sexual exposures in populations at higher risk; the early start of antiretroviral therapy (ART); and the supplementary role of biomedical interventions vis-a-vis traditional and effective barrier methods.

The closing of the seminar was marked by the launch of the 2013 scholarships selection for Brazilian internships in France with experience in the fields of STD, HIV, AIDS and viral hepatitis. Proposed thematic areas were prevention, social control, human rights promotion, epidemiology, treatment and/or assistance.

Between 1991 and 2011, the Brazil-France Internship Program had a total of 164 participants.

B) ARV Donation

For around ten years Brazil has been making donations of ARVs to different countries. Some of these donations meet emergency needs and other requests within the South-South Cooperation Network formed by countries that receive annual grants from Brazil to complete their AIDS treatment. Since 2003, according to reports from different beneficiary countries, donations from Brazil have supported more than 30,000 treatments.

C) Activities of the Mercosur Intergovernmental HIV Committee

The Intergovernmental Committee on HIV/AIDS Mercosur (CIHIV) is linked to the Meeting of Mercosur Ministers of Health (RMS). It includes representatives of the Ministries of Health of the Member States (Argentina, Brazil, Uruguay and Venezuela) and Associated States (Bolivia, Chile, Colombia, Ecuador, Peru). The CIHIV is a working group with the purpose of building consensus on the basis of the national policies and guidelines. The Coordination of the Mercosur health agenda is the responsibility of the Minister's Office and its technical implementation is responsibility of the Intergovernmental Committee on HIV (CIHIV) through the ACI/DDAHV. The following activitieswere developed during the first half of 2013:

HIV Technical Project Meeting in Border Areas of Mercosur

Meeting on HIV prevention, care and support in border areas of Mercosur countries, Montevideo, 29 to 30 May 2013. - Intergovernmental Committee on HIV in Mercosur

• Epidemiological Bulletin of Mercosur - Year II

D) World Health Assembly Satellite Meeting on Viral Hepatitis

The Ministry of Health of Brazil hosted and sponsored the Satellite Meeting on Viral Hepatitis held in May 2013 - during the World Health Assembly of the WHO, in Geneva. In a partnership with the World Hepatitis Alliance, and with the theme "Viral Hepatitis: addressing a challenge of the 21st century", the meeting aimed to raise awareness among Member States on the need to give priority to fighting hepatitis in global agendas, and to improve the global response to these diseases.

The meeting was leaded by the Brazilian Secretary of Health Surveillance. The discussions included authorities from Indonesia, Mongolia, Egypt, Scotland and Japan, whose experiences in the field serve as examples to draw attention to the urgency of these conditions. Ministers and global advocates shared their best practices in public policy.

The Satellite meeting resulted in the commitment of Member States to conduct a high-level meeting in November 2013 with the objective of coordinating the global effort to address all aspects of viral hepatitis, including awareness and prevention to diagnosis and access to drugs at affordable costs. As a member of the Executive Council next year, Brazil suggested the development of a new resolution, based on the discussions that will take place at the meeting of November 2013.

E) Middle-Income Countries Global Consultation on Access to ARV

Held in Brasilia from 10 to 12 June 2013, the Global consultation on ARV access aimed to: define and better understand the market for ARVs in middle-income countries and the specific challenges they face, especially in relation to access to ARV 2nd and 3rd lines; explore strategies for managing intellectual property rights from the perspective of public health; share experiences between middle-income countries to address challenges related to the sustainability of ART; identify strategies and mechanisms available to middle-income countries to face the increasing prices of ARVs; and explore the role of middle-income countries in pharmaceutical innovation, particularly in the development of new ARV formulations. The topics of discussion were: prices; regulatory framework; intellectual property; research and development.

The partner institutions in planning and conducting the consultation were UNAIDS, UNITAID, WHO and the Brazilian Government. WTO, WIPO and the Patent Pool Foundation also collaborated. Eighty representatives attended the Consultation, from 20 middle-income countries, NGOs and other international organizations (UNDP, Global Fund, World Bank and Clinton-CHAI Foundation).

F) Regional Training of Trainers on HIV Rapid Test: quality control

In April 2012, the Pan American Health Organization (PAHO), together with partners and with the technical participation of the Brazilian Ministry of Health through the Department of STD, AIDS and Viral Hepatitis held regional consultations in Latin America and the Caribbean in the area of counseling and testing for HIV using Rapid Testing technology. Areas in need of effective procedures, such as trust in the efficacy of rapid tests, human resources for the implementation of rapid tests, quality control and confidentiality of diagnostic testing were identified.

Brazil's leadership in this technology transfer process and provision of technical assistance with the support of PAHO is reflected in the proposal to hold a workshop on Rapid Tests in Brazil, in São Paulo in July 2013, at the Adolfo Lutz Laboratory, with the assistance of CRT/SP. The event aimed to: (i) strengthen the capacity of countries in the region to expand the activities of HIV diagnosis using rapid tests; (ii) support the development of validation studies of rapid tests for diagnosis and subsequent definition of algorithms and standards; (iii) support the development of external and internal quality protocols; and introduce practical and simple tools such as DTS (Dried Tube Specimen) to monitor the quality of HIV testing in Latin America.

The Workshop in São Paulo had 20 laboratory experts in attendance, from the following countries: Argentina, Bolivia, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Peru and Uruguay.

G) South-South Cooperation Network - Workshop on elimination of congenital syphilis and prevention of HIV mother-to-child transmission in Santa Cruz de la Sierra, Bolivia 10-12 July, 2013

As planned in the work schedule for 2012/2013 established during the South-South Cooperation Network meeting in Managua in May 2012. The aim was to plan and facilitate the implementation of these activities in January 2013, when priority activities for the Network in 2013 were established, focusing in the areas of treatment, mother-to-child transmission and logistics.

- H) Community of Portuguese Speaking Countries CPLP
- Strategic Health Plan for Cooperation in the CPLP (PECS/CPLP) from 2009 to 2012: Assessment Meeting

The meeting of the Technical Group on Health (GTS/PECS/CPLP) took place in Lisbon, at the Executive Office of the Portuguese Speaking Countries Community, on April 2013, in order to conduct the assessment of the 2009-2012 implementation actions for PECS (). At this meeting, all member states were present, except for Guinea-Bissau. Brazil was represented at the occasion by Dr. Paulo Buss (FIOCRUZ); Dr. Felix Rosenberg (FIOCRUZ); Dr. Augusto Paulo Silva (FIOCRUZ), José Telles (FIOCRUZ); Dr. Joseph Bassani (UNICAMP) and Mrs. Lícia Lemos (Ministry of Health).

The meeting occurred in accordance with the following sessions: I - Evaluation Report of PECS 2009-2012; II - Report of the World Conference on Social Determinants of Health and the Rio +20 Conference - Presentations and discussions on building national capacities: Health in the post-2015 agenda; and session III - Discussion of Proposals for PECS 2013-2016: conclusions and recommendations.

The summarized report of the meeting, forwarded by the Executive Office of the CPLP, refers to the need for greater operability of Thematic Research Networks already founded and recognized within the CPLP: Network for Health Research and Development in Portuguese-Speaking Community on STIs, HIV-AIDS (Rides IST-SIDA CPLP) and Malaria (Rides Malaria CPLP).

In order to develop a proposal for action for both Networks, the Brazilian Ministry of Health (SVS and AISA/MS) agreed to hold a meeting between the thematic areas involved in Praia, Cape Vert, in October 2013.

As a product of the Cape Vert meeting, a 2013-2017 action plan for the elimination of syphilis, HIV and hepatitis B mother-to-child transmission in Portuguese-speaking countries was elaborated. At this meeting, Brazil was elected Executive Secretary of the Network for Research and Development in Health - Rides ITS - Sida CPLP.

IV) Best Practices

The "Best Practice" in this report highlights two priority areas: (HIV testing) and treatment.

HIV TESTING

Inclusion of Civil Society Organizations in the rapid testing expansion strategy focused on key populations.

Its goal is to support civil society projects to encourage the use of rapid testing using oral fluid technology among key populations (MSM - men who have sex with men, gay men, sex workers, transsexuals, drug users).

The project is a partnership initiative with 33 non-governmental organizations working in 21 states and the Federal District. The initiative has the technical support of the Department of STD, AIDS and Viral Hepatitis, states and municipals coordination agencies. Besides testing, supplies for prevention, such as condoms and lubricants, as well as educational materials on HIV/AIDS, STDs and viral hepatitis will be offered.

Brazilian Strategy of Increasing HIV-1 Diagnosis

In 2013, the Ministry of Health published a new ordinance standardization of HIV-1 diagnosis in Brazil, aiming to create alternatives for expanding access to diagnosis. Five algorithms have been proposed. The Fiebig classification (AIDS 2003) was used as a reference. This is a system of laboratory staging for recent infection which classifies the early stages and helps define the most suitable algorithm in different situations presented for diagnosis. Serological diagnosis is performed with at least two tests, one for screening and a second, more specific, to confirm the result. The first two algorithms combine the use of rapid tests using samples from fingertip puncture or oral fluid, expanding access to diagnosis and allowing earlier treatment initiation. The third and fourth algorithms allow earlier diagnosis of infection by combining a third or fourth generation immune as screening with viral load quantification as confirmatory. Although less cost-effective when compared with other proposed algorithms, the fifth algorithm is more commonly used and combines an immune screening assay followed by Western blot as a confirmatory test.

The ordinance innovates by employing algorithms using oral fluid, simplifying testing, and making it more accessible and reducing biological risk. The incorporation of this diagnostic methodology increases the possibility of diagnosis in a timely manner, meeting the strategy recently adopted in Brazil to test and treat (TasP). By not requiring laboratory infrastructure, the methodology using oral fluid enabled the start, in December 2013, of testing projects in partnership with non-governmental organizations, prioritizing key populations.

With the publication of this ordinance, the department expects professionals and services to make the proper choice of algorithm for their local reality so as to enable access for all individuals who wish to know their serostatus. By designing these proposals, the timely response to individuals, their referral to medical care and cost-effectiveness of testing were all taken into consideration.

Case study for reducing the costs of HIV-1 Viral Load Laboratory Network of the State of Rio de Janeiro, maintaining the monitoring coverage

Tests for HIV-1 viral load quantification in the Brazilian network of 80 laboratories are purchased centrally by the Ministry of Health, whereas the states offer the infrastructure for testing. Between 2009 and 2013, this exam was done manually and it was replaced, in 2013, by equipment acquired by lending, in which the equipment cost is built into the price of the test.

Although there has been an increase in the processing capacity of the tests, the National Viral Load Laboratory Network remained with the same 80 laboratories, processing approximately 55,000 tests per month at a unit cost of US\$ 10.00, at a monthly cost of US\$ 550,000.00. This study in the state of Rio de Janeiro tested the hypothesis that it is possible to reduce the network cost through better capacity utilization of equipment, without reducing the monitoring coverage. The state has 159 collecting facilities and 12 laboratories performing 6,800 tests/month at a monthly cost of US\$ 6,800.00.

The analysis included the quantities of samples collected by each unit from January to November 2013, the distances to reference laboratories and capacity used in each laboratory. To analyze the unit cost of tests the following aspects were considered: operational; equipment; technical assistance; logistics; reagents; taxes and consumables. Simulations were carried out considering the optimal capacity of the equipment according to the supplier.

From this survey, it was observed that the reorganization of sample flow and the reduction of the number of laboratories to 5, while maintaining the 6800 tests per month level, generates savings in expenditure by the Ministry of Health with the state network of approximately 20%.

The study showed it was possible to reduce the costs while maintaining the coverage to monitor the infection. This reduction will also reflect on the State in terms of personnel and infrastructure. This is the first in a series of studies that will be conducted to identify the cost benefit of the network in its current configuration or the need of replacement by a purchasing service.

Evaluation of the Quality Program of the National Laboratory Network for HIV-1 in Brazil between the years 2008-2012

The Ministry of Health established the National Program for Quality Assurance of Laboratory Tests in 1996 to evaluate the performance of laboratories regarding the quality of procedures and results. The laboratories are classified as excellent, approved and failed. The external review panels are sent annually to the 90 laboratories of the CD4 network, 80 viral load laboratories and 23 genotyping laboratories. The panels are developed nationally with 50% lower costs compared with panels from other countries.

Since 2009, the viral load panel is shipped in recyclable ice packs, generating savings of 25% with transportation, compared to shipping with dry ice. The current logistics system is able to deliver panels in 97% of laboratories distributed throughout Brazil in a period of 24 hours. The improvement of the program allowed the panels to be sent every 2 months as of 2013.

The comparative analysis of the results obtained between 2008 and 2012 showed a high average of network approval (89% to 95%). The Genotyping Network had the highest average participation (97%). The Viral Load Network showed the greatest variation in the percentage of approvals (42.8% to 82.28%). The CD4/CD8 Network had the highest average approvals (83.37%). After analysis of the results, detailed reports on the performance of each laboratory are generated and technical visits are conducted in laboratories that do not obtain proficiency.

A high adherence to the Program reflects the commitment of the laboratories. The results demonstrate the commitment of the teams to achieve a high level of proficiency. The continuous encouragement of the Program by the Ministry will enable the development of a dry panel with lyophilized samples, generating savings for transportation, in addition to three external quality evaluations for CD4, viral load and genotyping in 2014, ensuring a better quality of monitoring of the networks.

TREATMENT

The Use of Information Systems as a Tool to Expand ART Coverage.

Brazil has a clinical protocol for the use of ART. Initially, it was established that the introduction of ART would start from = or $< 200 \text{ cells/mm}^3 \text{ CD4}$. In 2010, the range was changed to = or $< \text{than 350 cells/mm}^3 \text{ CD4}$. A new change in 2012, set the range as = or $< \text{than 500 cells/mm}^3 \text{ CD4}$. Currently, ART is recommended for all PLWHA.

Although national treatment guidelines have been widely used in services that follow up people living with HIV/AIDS, many patients eligible for ART (= or < 500 cells/mm³ CD4) are not retained in treatment and therefore are not continually followed up by SISCEL and SICLOM.

In order to identify patients eligible for treatment, a list of names of patients who presented at least one count = or < 500 cells/mm³ CD4 in 2013 was generatedfrom the national CD4 and VL database. The crossing of this data with the ARV dispensing system resulted in a new list of patients eligible for treatment which are not yet on ARV, comprising a total of 68,779 names.

Although the CD4 count threshold for treatment in national guidelines has changed over the years, it was observed that there was no influence of these changes in ARV coverage in Brazil. The UNAIDS/GARPR report identified in 2012 a difference of 25% of eligible patients off treatment. Therefore, the practice of intersecting information systems on treatment coverage is crucial for the realization of universal access for people living with HIV/AIDS. The use of systems allows direct and real time access to data related to treatment coverage, at a local level, and they serve as an excellent tool for public health, since the ARV dispensing system is implemented in 90% of SUS health services related to HIV/AIDS.

With the publication and implementation of the new treatment protocol, the Brazilian goal for 2014 is to have at least 100,000 new patients on treatment.

The 69,000 patients name list was sent to health services that follow up people living with HIV/AIDS, with a recommendation to initiate ART in these patients. This list will be monitored at the federal level every three months. It is the beginning of a new era for the clinical assessment of HIV/AIDS in Brazil.

V) Conclusions

The year 2015 will mark the three-decade history of the HIV/AIDS Brazilian response. As every committed national response, many challenges will be continued target and Brazil will need to keep its best experience but constantly innovate towards new technologies and inclusive approaches. There is particular discomfort due to the high mortality rate and low coverage of antiretroviral therapy. In this sense, it will be needed to follow some key points:

- 1) Clear strategies for combined prevention actions focused on key specific populations, as expected in a concentrated epidemic;
- 2) Implementing a new simplified diagnostic algorithm, which enhances the concept of point of care diagnosis and facilitates reaching the estimated 150,000 Brazilians who do not know their HIV positive status;
- 3) Starting early treatment to all HIV-positive patients, regardless of CD4, so as to impact morbidity, mortality and transmission of HIV;
- Involving all stakeholders in the fight against the epidemic, including federal, state and municipal governments; non-governmental organizations; universities and researchers; private enterprises; UN agencies and other bilateral partners, among others;
- 5) Creating sustainability mechanisms for the Brazilian civil society, which is an essential part of the national response;
- 6) Reinforcing the fight against stigma and discrimination against key populations and people living with HIV;
- 7) Contributing, in the country, to a planet with zero new cases, zero deaths due to AIDS and zero discrimination.

If the remarkable cultural diversity of the country and its significant social and geographical differences have helped to design a unique response to HIV/AIDS, it is time to face these challenges and to redesign this portrait, according to the new epidemic features. The Brazilian response, as we said before, is part of a global permanent struggle of all countries to "get down to zero". This document is one further step to reach this goal.