

# AIDS in Latin America: assessing the current status of the epidemic and the ongoing response

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**Background** This article provides a summary of the current status of the HIV/AIDS epidemic in Latin America, as well as an outline of the diverse responses to it.

**Methods** A search of international databases (Pubmed and ISI-Web of Science), regional databases (SciELO and Lilacs), regional and national documents and UNAIDS reports. Data are presented according to subregion.

**Results** In Mexico HIV remains concentrated among urban men who have sex with men (MSM), and has been growing among injecting drug users (IDU) and in rural areas in relation to migration. An increasing proportion of women among those affected is observed in all countries in Central America, the most affected region, as well as increasing the impact on other vulnerable groups, such as indigenous populations. The Andean Countries have urban epidemics concentrated among MSM. In Peru, non-traditional vulnerable populations were identified. In the Southern Cone heterosexual transmission became more relevant, probably in connection with IDU epidemics and is increasingly affecting lower income groups. Incidence rates have been declining since 2002 in Brazil, the first country to guarantee free, universal access to antiretrovirals, where one-third of drug-naïve patients are still initiating treatment at an advanced stage. Generally, access to treatment has improved as a result of support from the Global Fund and other initiatives, but there are concerns regarding coverage, equity and sustainability.

**Conclusions** HIV is still concentrated among MSM in Latin America. Non-traditional vulnerable groups such as migrants and lower income populations, usually considered part of the general population, deserve attention. Programmes confronting sexual exclusion are still needed. Access to treatment has improved over time, but inequalities persist.

**Keywords** HIV, AIDS, Latin America, men who have sex with men (MSM), Injecting drug users (IDU), access to treatment, highly active antiretroviral therapy (HAART), gender inequality, social inequality, vulnerable populations

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## Introduction

According to estimates from the United Nations Joint Programme on HIV/AIDS—UNAIDS,<sup>1</sup> as of December 2007, 33.2 (95% CI: 30.6–36.1) million people were living with HIV worldwide. Among them, ~1.6 (1.4–1.9) million or 5% of this total were living in Latin America. Overall, HIV prevalence among adults was 0.5% (0.4–0.6%) in Latin America.

This article reviews data from peer-reviewed papers and reports from international health agencies (e.g. UNAIDS, the World Health Organization—WHO, and the Pan American Health Organization—PAHO), with the aim of providing a summary of the current status of the pandemic in the region, as well as an outline of the responses to it.

Due to the strong heterogeneity of the epidemic in the region, data will be presented according to the major regional divisions, based on the socio-geographic, demographic and cultural characteristics of the subregions.

Comprehensive reviews have been published on specific countries, such as Brazil,<sup>2,3</sup> Argentina,<sup>4</sup> México<sup>5</sup> and Costa Rica,<sup>6</sup> as well as on specific populations, such as drug users<sup>7</sup> and men who have sex with men (MSM),<sup>8</sup> but no paper has addressed the epidemiology of HIV/AIDS in the region, since the publication of the review by Calleja *et al.* in 2002.<sup>9</sup>

## Methods

The scientific output on HIV/AIDS in Latin America is heterogeneous, reflecting broad social and economic forces, favouring/hampering science in general and research on HIV/AIDS in particular.

According to the ISI-Web of Science,<sup>10</sup> Brazil figures among the top 20 countries in scientific branches as diverse as plant science and neurosciences. In the field of HIV/AIDS, Brazil's scientific output has been vigorous.<sup>11,12</sup> To some extent, other Latin American countries such as Argentina, Mexico and Peru have a consistent scientific output, but peer-reviewed publications from other Latin American countries on HIV/AIDS are still scant.

Due to this heterogeneity, this review combines the thorough search of international (e.g. Pubmed and ISI-Web of Science) and regional databases, such as Scielo (The Scientific Electronic Library Online) and Lilacs (Latin American and Caribbean Health Sciences), with information from the gray literature (e.g. regional and national reports).

Even with the recourse to the abovementioned sources of information, data remained fragmentary and/or outdated for some countries. Additional data were sought from colleagues from UNAIDS.

## Results: the status of the epidemic

### Mexico

With more than 107 million population, Mexico, as of November 2006, had an estimated 182 000 people

living with HIV/AIDS, with an HIV infection prevalence rate, in adults, estimated as 0.3% (95%CI: 0.2–0.7).<sup>13</sup>

Mexico's epidemic remains concentrated in MSM, female sex workers (FSW) and their clients, and has been growing among injecting drug users (IDU). Unprotected sex between men is estimated to account for 57% of HIV infections reported as of December 2007.<sup>14</sup>

The epidemic is concentrated in the capital, Mexico City, and other large cities, as well as in the coastal area, due to the influx of tourists and workers of the tourism industry,<sup>15</sup> and, more recently, in the Mexico-United States (US) border.<sup>16</sup>

In 2000, only 4.6% of AIDS cases were from rural areas. However, in the present decade the epidemic has been increasing in villages and rural areas, where native Mexicans predominate.<sup>15</sup> The seasonal migration of Mexicans between the US and their rural hometowns in Mexico may contribute to the dissemination of HIV.<sup>17</sup> In recent years, heterosexual transmission became more relevant and nowadays constitutes the main transmission route in the Mexican southern border.<sup>18</sup>

Mexico has been a transshipment area of cocaine en route to the US and in some of its regions poppy opium has been cultivated. Notwithstanding this, the injection of illicit drugs is relatively recent, and remains concentrated in the northern area adjacent to the US border.<sup>19</sup> Drug using patterns have been changing, with increasing use of crack cocaine and meta-amphetamines, besides the injection of heroin.<sup>20</sup>

In Tijuana and Ciudad Juarez (Mexico-US border), drug consumption has been intense, with high levels of needle-sharing and low frequencies of HIV testing.<sup>16,21</sup> In both cities prevalences of HIV among IDU remain relatively low (<5%), unlike syphilis, especially in Tijuana (13.5%), and HCV (hepatitis C virus) infections in both cities (~95%).<sup>22</sup> In Tijuana and Ciudad Juarez, studies among over 400 FSW in each city found that 21 and 12%, respectively, of FSW were also IDU, among whom HIV prevalence was found to be 16% (vs 4% in non-IDU FSW). Male sex workers are another highly vulnerable group, with prevalences over 20% in Mexico City/Guadalajara.<sup>17</sup>

### Central America

Central America—consisting of Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama—is the subregion most affected by the HIV epidemic in Latin America. Guatemala and Honduras have generalized epidemics (i.e. prevalence rates among the general population >1%), while Costa Rica, El Salvador, Panama and Nicaragua have concentrated ones.<sup>1</sup> Although declines have been observed in some countries, such as Honduras, the epidemic has not been curbed in certain populations and geographical areas, such as in the Garífuna ethnic community<sup>23</sup> and in transit routes and ports.<sup>1</sup>

Efforts to curb the epidemic in the region have been hampered by poverty, lack of access to services and widespread stigma and discrimination.<sup>1,24,25</sup>

Information comes mainly from HIV Multicentric Studies conducted by UNAIDS/WHO and the National AIDS Programs in 2001–06.<sup>24</sup>

Indigenous populations, e.g. Cunas, Miskitos, Garifuna, Mayans and Xinca have been particularly vulnerable to the epidemic, due to overt marginalization. Five per cent of new infections in the region have occurred in Garifuna living in Belize, Guatemala, Nicaragua and Honduras, with an overall HIV prevalence of 4.5%.<sup>23,25</sup>

High prevalence for sexually transmitted infections (STI)<sup>24</sup> and regular migrations between people living in Central America and in the US, add new layers of complexity to the local HIV dynamic. Around 139 000 Guatemalans of Mayan-descent live in the US and their numbers have been increasing.<sup>25</sup> The link between migration and vulnerability to HIV among Garifuna was recently assessed.<sup>23</sup>

All Central American countries have been experiencing the feminization of the epidemic since the early 1990s. In El Salvador the male:female ratio has oscillated around 1.5:1 in 2004–06,<sup>6</sup> however, in areas with a lower Human Development Index, this ratio has been closer to 1:1 (e.g. the rural departments of Morazan and La Paz), or lower than 1:1, in Chalatenango.<sup>26</sup> HIV prevalence among pregnant women is still low throughout Central America. In Honduras and El Salvador, in 2006, HIV prevalence was 0.6 and <0.5% among women accessing prenatal services, respectively.<sup>1,26</sup>

High infection rates have been found among FSW from Honduras, with a high seroincidence (3.2/100 person-years), whereas rates have been low in Nicaragua (0.2%) and Panama (0.2%).<sup>1,24</sup> Data on MSM are scarce due to stigmatization and denial. The multicenter survey of 2000–01 made evident a high HIV seroprevalence among MSM in El Salvador (15.3%) and Nicaragua (7.6%).<sup>24</sup> Data from Honduras from 2006 also showed high prevalences in this population (6.0% in Tegucigalpa, 10.1% in San Pedro Sula and 5.0% in La Ceiba).<sup>27</sup> Guatemala estimated an HIV prevalence between 11.5% and 18.3% among MSM, in 2007.<sup>28</sup>

### The Andean countries

The combined population of the five Andean countries (Bolivia, Colombia, Ecuador, Peru and Venezuela) is 120 162 500. As of the end of 2005, 393 000 people were estimated to be living with HIV.<sup>1,29</sup> The Andean countries have urban epidemics concentrated among MSM,<sup>8</sup> with a negligible role of IDU.<sup>7</sup> However, since many of these men also have sex with women, a number of women acquire HIV mostly in the context of heterosexual unions, not related to sex work.<sup>1</sup> HIV rates among FSW have remained comparatively low outside a few urban locations. On the other hand,

feminization of the epidemic took place during the 1990s, going from male:female ratios over 10:1 early in the decade to figures around 3:1 at the turn of the century. Those ratios, however, seem to have stabilized in the last decade.<sup>1,29</sup>

### Bolivia

Seven thousand people were estimated to be living with HIV in Bolivia, with a population of 9 182 000 people and an adult HIV prevalence of 0.1%. By December 2005, 798 AIDS cases had been reported, of which 69% were adult men, 27% adult women and 4% children.<sup>1,30</sup> While 78% of cases have been attributed to heterosexual transmission, this is inconsistent with the male:female ratio, of 7:1 in 2000 and 2.5:1.0 in 2005.<sup>1,30</sup> Roughly 46% of AIDS cases have been reported in the 25- to 34-year-old age-group, and 48% of AIDS cases have been reported in the region of Santa Cruz.<sup>1,30</sup>

The Bolivian epidemic is concentrated among MSM.<sup>30</sup> Surveys in Santa Cruz and the capital, La Paz, suggest rapidly increasing HIV prevalence in this population over the past decade, from nearly 0% to over 20%. Conversely, prevalence among FSW in 2003 were 0.2% in La Paz, Cochabamba, Chiquisaca and Santa Cruz, and 0% in the other departments.<sup>31</sup> One study found a high prevalence (3.5%) among homeless young people from Cochabamba.<sup>32</sup> Among pregnant women, however, rates have remained low over the years, with a mean HIV prevalence around 0.13%.<sup>33</sup>

### Colombia

With a total population of 43 593 000, the estimated prevalence of HIV among adults in Colombia was 0.6% in 2005.<sup>1</sup> A total of 10 588 AIDS cases were reported between 1983 and 2005, of which 56% were reported as heterosexual and 44% as resulting from male-to-male sex.<sup>34,35</sup> In 2006, 70% of new AIDS cases among men were attributed to heterosexual transmission. Among women, over 97% of cases were attributed to heterosexual transmission and tended to occur in young ages.<sup>1,34,35</sup>

Sentinel surveillance among MSM in 2000–02 made evident prevalences of 18–20% in the capital city, Bogota.<sup>36</sup> Among pregnant women, from a low of 0.06% in 1991, rates increased to 0.4% in 1999 and 0.6% in 2003.<sup>37</sup> Among FSW, prevalences were around 0.7–0.8% in Bogota.<sup>37</sup>

An assessment of the drug scene of Bogota found youth recently engaged in the habit of injecting cocaine and heroin. Most were polydrug users and reported low injection frequencies, with low seroprevalences for both HIV and HCV (<2%), however, high frequencies of syringe sharing and unprotected sex may favour HIV spread.<sup>38</sup>

### Ecuador

An estimated 23 000 people were living with HIV in 2005 in Ecuador, with a population of 13 228 000, giving a prevalence of 0.3% among adults.<sup>1</sup> Of newly reported cases in 2004–05, 77% were among males, of which less than one-third reported sex with other men, suggesting that homo/bisexual transmission has been underreported.<sup>8</sup>

Different studies made evident high prevalences of HIV among MSM (14–17% in the capital city, Quito, and 23–28% in Guayaquil),<sup>1,39</sup> but low prevalences (1.7%) among FSW and pregnant women (0.4–0.6%).<sup>39</sup>

### Peru

With a population of 27 968 000, the HIV prevalence among adults in the country was estimated at 0.6% in 2005.<sup>1</sup> A total of 19 192 AIDS cases had been reported between 1983 and 2005, with a median age at diagnosis of 31-years-old.<sup>40</sup> The epidemic is mostly urban (80% of cases occurring in Lima, the capital city, and the nearby port of Callao), also affecting the coast and the Amazon rainforest. The male:female ratio declined from over 10 in the late 1990s to around 3:1, but remained stable thereafter.<sup>41</sup>

HIV prevalence among pregnant women have varied from 0.15% to 0.26% between 1996 and 2002, with higher levels in Lima.<sup>41</sup> Among FSW, the overall HIV prevalence was around 0.5% in the main cities between 2000 and 2002, although in specific locations it was as high as 2%.<sup>42</sup> Among MSM, HIV prevalence range from 8% to 23% in Lima and around 14% in the other main cities of Peru.<sup>41</sup> Between 1996 and 2002, increases in prevalence were documented among MSM.<sup>43</sup> The most affected group was male transvestites.<sup>43</sup>

A study on adolescents in Lima found that, of 34% of them who were sexually experienced, 12% among males had sex with both males and females; 47% of males reported having paid for sex, and 47% of females reported sexual coercion.<sup>44</sup> Recent studies have focused on social determinants of vulnerability, such as poverty, limited access to education and lack of parental support<sup>45</sup> and identified vulnerable populations with increased behavioural risk and HIV/STI rates, such as the *esquineros* (unemployed, heterosexually identified males who use alcohol/drugs and may exchange sex for goods) and the *movidas* (poor women, with early pregnancies and involvement in compensated sex).<sup>45</sup>

### Venezuela

An adult HIV prevalence of 0.7% is estimated in Venezuela, with a total population of 26 749 000.<sup>1,47</sup> Between 1983 and 2002, Venezuela reported 20 825 AIDS cases to PAHO, but underreporting seems probable.<sup>47</sup> The epidemic is concentrated on MSM, and transmission between males seems to account for 65% of total HIV infections, with increasing proportions of young men aged 15–25 becoming infected,<sup>48</sup> while

28% of all adult cases occur in women.<sup>1,48</sup> Data are sparse, since the country lacks an established surveillance system.

### Brazil

Brazil has a population of 191 780 650 inhabitants, of whom 82.8% living in urban areas.<sup>49</sup> AIDS cases from 1980 to June of 2007 total 474 273,<sup>50</sup> with an average number of new cases per year of 34 627 AIDS cases, in 2000–06.

Approximately 620 000 (95% CI: 543 063–644 511) people are estimated to be living with HIV/AIDS in Brazil, with a 0.61% prevalence in the adult population (0.42 and 0.80% among women and men, respectively), in 2004. Prevalence estimates remained stable over the past few years.<sup>51</sup>

Incidence rates have been declining since 2002 (from 22.2/100 000 in 2002 to 17.5/100 000 inhabitants in 2006), influenced by the decline observed in Brazil's most industrialized regions, the southeast (from 29.2 to 20.5/100 000) and the south (from 33.3 to 25.6/100 000), which altogether represents 46.1% of all AIDS cases.<sup>51</sup>

Declining incidence rates have been observed among men and women aged 20- to 39-years-old. However, among those over 40 the epidemic is experiencing a slight increase, whereas among young people (13- to 24-years-old), incidence rates increased in 2002–03, but decreased thereafter. The male:female ratio declined consistently from 1985 to 2002 (from 26.7:1 to 1.5:1), and remained stable thereafter.<sup>50,51</sup>

Sexual transmission is associated with the vast majority of AIDS cases in Brazil, with almost half of them due to unprotected sex between men. In the first years of the AIDS epidemic, MSM and recipients of blood and blood products accounted for most cases, followed by the dissemination of HIV among IDU. Heterosexual transmission became the leading exposure category since the mid-1990s. The proportional distribution of AIDS cases by exposure categories over time shows that, from 1996 to 2006, there was a decrease of AIDS cases among MSM (from 20.9% to 17.3%), a pronounced decrease among IDU (from 20.4% to 7.1%) and a substantial increase of heterosexual transmission (from 43.0% to 62.4%). HIV transmission due to blood transfusion/blood products experienced a dramatic decrease since the mid-1980s, and its role in the epidemic since then has been negligible (0.3% of AIDS cases reported in 2006).<sup>50</sup> But despite the success of blood control, a recent assessment of a large blood bank highlighted residual risks.<sup>52</sup>

For those aged <13 years, mother-to-child transmission (MTCT) corresponds to 90% of the AIDS cases. The rates of MTCT have been declining over time, from 16.0% (95% CI: 13.0–20.0), in 1998, in São Paulo,<sup>53</sup> to 5.6% (95% CI: 2.9–7.5), in 2005. The latter study includes data from 17 referral hospitals located in the capital cities of all, but the north,

Brazilian regions.<sup>54</sup> In spite of the declining trends, HIV testing and counselling, as well as the management of HIV-infected pregnant women has been far from optimal and remains unequal across the country. In 2002, only 52% of the pregnant women had access to the HIV test result before delivering. Of special concern are the north and north-east regions, where the corresponding figures are below 30%.<sup>54,55</sup>

Along the late 1980s and the decade of 1990, the level of education and occupational status of those affected by the epidemic in Brazil steadily decreased, especially among women.<sup>56,57</sup> From 2002 to 2006, an increase in the proportion of cases among biracial individuals, with no discernible trend among blacks and a slight decrease among whites.<sup>50</sup>

Mortality rates increased until the early 1990s, when, as a result of better management, it started to decline, first among men and then among men and women.<sup>58,59</sup> The cumulative number of deaths was 192 709 as of 2006, corresponding to an adjusted mortality rate of 5.1/100 000 inhabitants. After the introduction of highly active antiretroviral therapy (HAART), in 1996, the decrease was dramatic,<sup>59</sup> especially in the south-east, where the adjusted rates declined from 15.3/100 000 in 1996 to 6.7/100 000 in 2006.<sup>50,55</sup> Again, the underserved north and north-east regions did not experience a similar decrease, but rather an increase, varying from 1996 to 2006, from 2.7/100 000 to 4.6/100 000 and from 3.0/100 000 to 3.3/100 000, respectively.<sup>50,55</sup> A recent review found no significant difference in survival time according to gender in Brazil, except by one study.<sup>60</sup>

### The Southern Cone

Argentina, Chile, Paraguay and Uruguay have a population of approximately 64 600 000 people.<sup>1,61</sup> By 2005, the estimated number of people living with HIV/AIDS in the Southern Cone was 180 000.<sup>61</sup> Over the years, heterosexual transmission became more relevant and a growing number of women have been affected by the epidemic. The epidemic in the Southern Cone has increasingly affecting those with lower socioeconomic status.<sup>61</sup>

#### Argentina

Approximately 134 000 (128 000–140 000) individuals were living with HIV/AIDS as of 2007, corresponding to an incidence rate of 9.4/100 000 inhabitants. More than half of the AIDS cases are from the Buenos Aires Province.<sup>61–63</sup> If the other two bigger metropolitan areas of the country, Rosario and Córdoba, are included, this proportion increases to 80% of all reported AIDS cases.<sup>4</sup>

In 2002, among adults, accumulated AIDS cases among IDU corresponded to 40% of the reported cases, whereas cases secondary to heterosexual transmission corresponded to 27% of the total. However, considering only the cases reported after 2000, heterosexual transmissions correspond to 75% of all

cases, with a pronounced decline of cases among IDU and a relevant decline among MSM.<sup>4</sup> Male:female ratio has decreased consistently, reaching 2.3:1 in 2005.<sup>61–63</sup> IDU were heavily affected by the epidemic in its two first decades. A review of 22 different studies carried out between 1987 and 1999 found HIV prevalence rates between 27% and 80% among IDU.<sup>64</sup>

AIDS cases among children correspond to ~3.5% of the cases, the vast majority (96%) of them due to MTCT. Serious gaps in terms of prevention of MTCT remain, despite the availability of trained health professionals and antiretroviral drugs (ARV). One possible explanation of such deficiencies is the hesitant process of decentralization of AIDS management and care, from a few referral hospitals to primary and secondary level facilities located in the suburbs and middle-sized cities.<sup>4</sup> The mortality rates peaked at 5.3/100 000 in 1996, declining to 3.9/100 000 inhabitants in 2002.<sup>61–63</sup>

#### Chile

As of December of 2007, 17 235 cases were reported in the country, which corresponds to a rate of 54.2/100 000 inhabitants. Currently, 60 000 are estimated to be living with HIV/AIDS.<sup>1,61,65</sup>

The epidemic has been basically driven by sexual transmission (92% of the cases) and has been concentrated in men (88% of the accumulated AIDS cases), suggesting that unprotected sex among men could have a bigger contribution than the proportion of cases officially attributed to MSM (45%).<sup>8</sup> AIDS cases are concentrated among people aged 20- to 49-years-old.<sup>1,61,65</sup>

From 1984 to 2004, there were 5288 deaths due to AIDS. Mortality rates declined from 3.6/100 000, in 2001, to 2.5/100 000, in 2005, which is attributable to the optimal ARV coverage for those in need.<sup>1,61,65</sup>

#### Paraguay

From 1985 to 2007, 1940 cases were reported in Paraguay. Sexual transmission accounts for 80% of cases, with a male:female ratio of 3:1. The most affected age-group is 25- to 29-years-old, a younger age bracket than in the other countries from the region. Most cases are concentrated in the capital city, Assunción, and in the Eastern frontier with Brazil and Argentina. In 2006, HIV prevalence studies found a prevalence of 0.3% among pregnant women; 1.8% among FSW; 10.7% among male sex workers; 9.1% among IDU and 0.4% among military men.<sup>1,61,66</sup>

The scope of HIV spread among IDU in Paraguay has been restricted, likely due to the small size of their high-risk IDU populations. However, its role as a transshipment route of cocaine has been increasing, as are the numbers of polydrug users.<sup>67,68</sup>

#### Uruguay

The AIDS epidemic in Uruguay is relative small in its scope and concentrated in the area around the capital

city, Montevideo (77% of the AIDS cases) and at the border with Brazil. The cumulative number of AIDS cases was 3156, in 2007.<sup>1,61,69</sup>

IDU had a key role in the beginning of the epidemic and, nowadays, 25% of the cases belong to this exposure category, with a proportional increase in the number of cases due to heterosexual transmission over time.<sup>1,61,69</sup> Almost half (45%) of the AIDS cases among IDU have been reported among individuals aged 15–24 years.<sup>70</sup> Unlike other Latin American countries,<sup>7</sup> the relative number of female IDU is high in Uruguay, with an increasing number of HIV infections among pregnant women and newborns of drug-injecting mothers.<sup>71</sup>

## Access to treatment and prevention in Latin America

Since the early 1980s, people living with HIV/AIDS (PLWHA) in the region have been struggling for care within public health systems, effective coverage by insurance companies, protection against labour-rights violations and discriminatory practices. A good part of the efforts of community groups has been to provide help due to the lack of support from the state.

The initiatives that emerged in the 1990s opposed not only stigma and discrimination, but also the inequalities that were reinforced by the pandemic, particularly in regards to access to treatment. Since 1996, with the launching of HAART, the north–south divide became more visible, as access to new medications was hampered by their high costs.<sup>72</sup> The 1990s were marked by the World Bank's controversial position that developing countries should focus on preventative initiatives rather than treatment.<sup>73</sup>

Brazil was the first middle-income country worldwide to reject this prescription with the full implementation of a national HIV/AIDS strategy for prevention as well as treatment. Since 1996, Brazil has guaranteed universal access at no cost at the point of delivery to ARV. Adherence to ARV treatment, which was thought to be problematic, not only within the country but also among international agencies, was found to be comparable with adherence observed in the US and Europe in a countrywide study from 2003 (75% of the patients were taking more than 95% of the prescribed pills).<sup>74</sup> Unfortunately, one-third of drug-naïve patients have been initiating the treatment at an advanced stage of the disease.<sup>75</sup>

In recent years, the question of the right of access to AIDS medications has been focused on patents, the role of international pharmaceutical companies (IFC) and the associated costs of ARV.<sup>76,77</sup> Brazil's resilience against pressures from IFC, combined with other regional developments, such as the creation of the Horizontal Group of Technical Cooperation on HIV/AIDS, fostered universal access to prevention

and treatment as now promoted by international agencies.<sup>78</sup>

The establishment of the Global Fund to Fight AIDS, TB and Malaria, in 2001, the Declaration of Commitment signed by 189 countries at the United Nations General Assembly Special Session on HIV/AIDS (UNGASS), also in 2001 and the '3 by 5' Initiative (i.e. the WHO initiative to provide ARV to 3 million people in developing countries by 2005) put the synergy between prevention and treatment as a centrepiece in the implementation of national responses to the epidemic.<sup>78</sup> Also, lessons from delivering ARV in resource-limited settings fostered treatment roll out.<sup>79,80</sup>

In Latin America, access to treatment has improved over time,<sup>81</sup> reaching 73% of the PLWHA in the region in 2007.<sup>63</sup> However, inequalities emerge when the data are disaggregated by country. These same inequalities affect preventative initiatives as well.

Brazil has one of the largest populations of individuals (200 000) receiving ARV, free of charge, worldwide and it is trying to reduce the costs of ARV, including the issuing of a compulsory license in 2007.<sup>82</sup>

Latin America shares with other regions some of the gaps and challenges that remain to be overcome such as the disadvantages that afflict women in regard to access to information, their ability to negotiate safer sex and gender-based violence.<sup>1,63</sup>

Much work remains to be done with more refined data in order to reveal the disparities in access to treatment. We can include here the need to scale-up coverage of MTCT prevention<sup>83</sup> and the long-term sustainability of the provision of AIDS treatment.<sup>84–86</sup>

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