Antiretroviral Treatment in the Spotlight: A Public Health Analysis in Latin America and the Caribbean

GUYANA

Pan American Health Organization
Regional Office of the World Health Organization

110th ANNIVERSARY

Development, HIV epidemic, and response indicators

Human Development Index: Guyana/LAC (2009)	0.624/0.72
Estimated number of people living with HIV (2009)	5,900 [2,700-8,800]
Estimated % of people living with HIV who are women (2009)	47%
HIV prevalence (15-49) (2009)	1.2%
HIV prevalence in women 15-24 (2009)	0.8%
HIV prevalence in men 15-24 (2009)	0.6%

Source: UNAIDS 2010, Human Development Report, UNDP

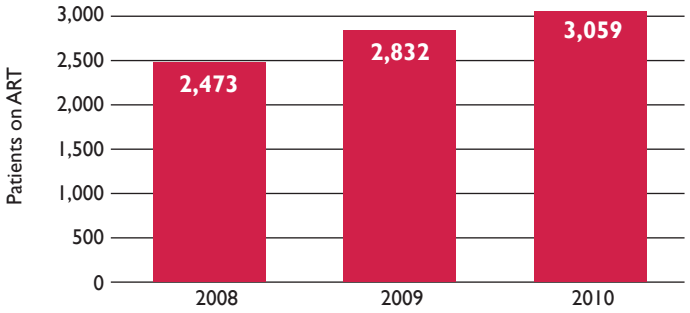
	2009	2010
ART coverage	66% [47->95]	84% [59–>95%]
Proportion of pregnant women who received HIV testing		94%
Rate of HIV testing/1,000 inhabitants in Guyana/LAC		270/ 81.2
% CD4<200 at beginning of care (1)		n/a

Source: WHO/UNAIDS/UNICEF. Global HIV/AIDS Response. Progress Report 2011.

Treatment

For 2010, Guyana reported 3,059 ART patients, of whom 177 were children and 55% were women. The reported number of patients initiated on ART was 499 for 2010, with a net increase of 227 patients from 2009 to 2010 (Figure 1). Among patients on treatment, 90.3% were on first-line, 9.7% were on second-line, and no patients were on third-line treatment (Figure 2). The number of patients switching from first- to second-line treatment in 2010 was 46, for an annual switching rate of 2.7%.

Figure 1 Patients on antiretroviral treatment 2008-2010



Service delivery

In 2010-2011, Guyana had 20 public facilities providing ART, yielding an average of 153 ART patients per establishment. Two centers had more than 500 patients.

Quality of services and rational use of ARVs

Total ART regimens for adults (first-line)	5
Adults in first-line ART under a WHO-recommended regimen	97%
Total ART regimens for adults (second-line)	2
Adults in second-line ART under a WHO-recommended regimen	28%
Stock-out episodes	n/a
Stock-out risk episodes	n/a
Patients lost to follow-up in the first year of ART	7.6%
Retention at 12 months from beginning of ART	81%
Viral load tests per ART patient/year (average)	0.4

Source: Country ARV survey report, WHO 2010. Country reports of early warning indicators (2009-2011), PAHO survey of stock-out episodes 2010.

TB-HIV co-infection

The percentage of TB patients tested for HIV was 88% in 2010, with 28% of patients testing positive (156 patients co-infected with TB-HIV). There were 26 reported deaths from TB-HIV.

Figura 3 Percentage of patients in 1st line by main ARV regimens

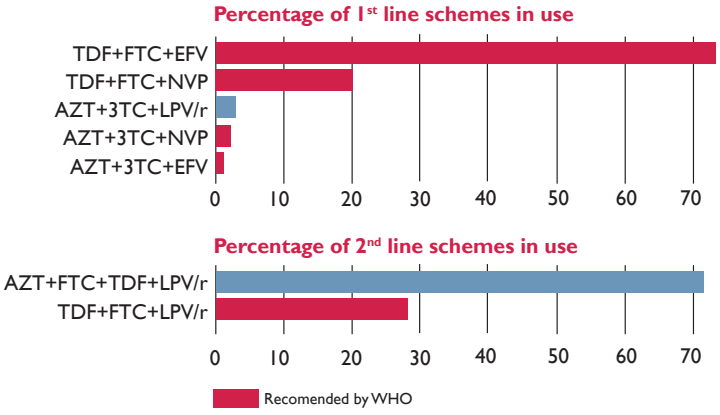
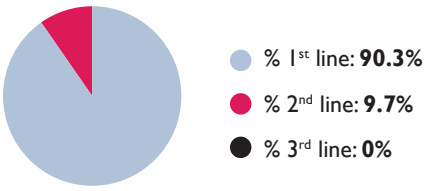


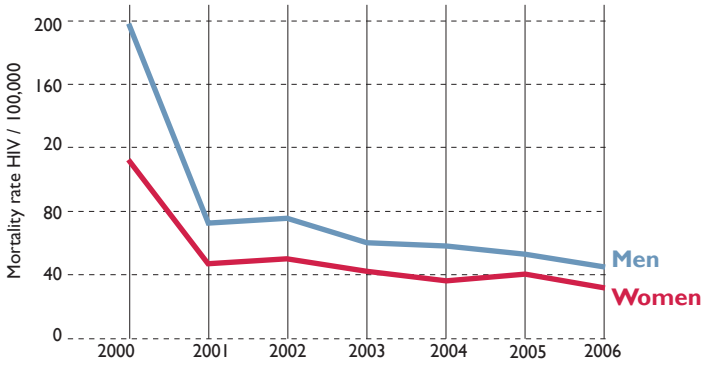
Figure 2 Percentage of patients on antiretroviral treatment per line of treatment



Mortality from HIV

Between 2000 and 2006, the HIV mortality rate dropped sharply in men and women (Figure 4).

Figura 4 Standard mortality rate due to HIV by sex



Expenditure

For 2007, Guyana´s national health expenditure was US$ 127 million, of which 73% (US$ 92 million) was government spending. Public expenditure on health was 5.3% of GDP. There is no information available on annual public spending on HIV, but according to the Global Fund´s procurement information system, Guyana provided ARVs worth US$ 1.5 million in 2008, US$ 734,000 in 2010 and US$ 833,000 in 2011. The cost per patient on ART was US$ 2,249 for patients on first-line and US$ 3,093 for patients on second-line treatment.

External financing: Global Fund (GF)

Guyana has the support of the Global Fund for its HIV response. The value of active Global Fund grants is US$ 34,109,447. The currently funded proposal includes an ART component. This funding will end on 31/3/13 but could be extended for three years. All (100%) of the ARVs are currently financed by the Global Fund.

Analysis and conclusions

The number of HIV tests per capita is among the highest in the region, and ART coverage is also high. The normalization of antiretroviral regimens for the first- and second-line is optimal. Virological surveillance in patients is inadequate, but HIV mortality has nevertheless decreased significantly in both men and women. Information on national spending on HIV is incomplete, but it is known that Guyana is highly dependent on external financing for ART.

Sources and methodology

The data on patients receiving ARV treatment, retention at 12 months, and programming are drawn from the *Country Reports on Progress toward Universal Access for HIV Prevention, Care, and Treatment 2011* and the *2011 Surveys on Antiretroviral Use*, which the competent agencies of each country complete for PAHO/WHO. Data on the supply of medication and stock-outs come from a special PAHO survey sent to Latin American countries in 2010, which was filled out by national HIV/AIDS programs. Countries routinely report mortality figures to PAHO. The data on TB-HIV co-infection are from WHO's *Global Tuberculosis Control 2011*. Data on mortality from TB-HIV are from the country responses to a PAHO special survey (TB program).

Data on HIV expenditure are from the MEGAS studies carried out by UNAIDS in collaboration with the countries. These data as well as estimates of the HIV epidemic, are compiled in UNAIDS' AIDSinfo database (http:/www.unaids.org/en/dataanalysis/tools/aidsinfo/). Health expenditure data are also drawn from PAHO Basic Indicators and the United Nations Department of Economic and Social Affairs. Data on Global Fund projects were taken from the Global Fund website.

Definitions

ARV stock-out episode: "A situation in which a product cannot be dispensed due to a lack of supplies and which causes the forced interruption of treatment in at least one patient."

Stock-out risk: "A stock level below the established minimum level or the need to take unplanned measures to prevent a stock-out (emergency purchases, loans, etc.)."

% CD4<200 at beginning of care: "Percentage of patients with basal CD4 <200 cell/mm^3 relative to total patients with basal CD4."

Abbreviations

ART= antiretroviral therapy; **ARV**= antiretroviral; **GDP**= gross domestic product; **GF**= Global Fund; **LAC**= Latin America and the Caribbean; **TB**= tuberculosis; **VL**= viral load.

Acknowledgments

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