EDITORIAL / EDITORIAL

HIV/AIDS, STIs and viral hepatitis in Brazil: epidemiological trends

HIV/aids, hepatites virais e outras IST no Brasil: tendências epidemiológicas

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In Brazil and worldwide, human immunodeficiency virus (HIV) infection persists, with the number of people infected consistently increasing. Estimates from the Joint United Nations Program on HIV/AIDS (UNAIDS) indicate that there were about 44 million people infected with HIV globally as of 2017¹.

In Brazil, from 2007 to 2017, a total of 230,547 cases of HIV infection were reported to the Ministry of Health, while in 2017 there were 42,420 new cases of HIV and 37,791 cases of AIDS, with a detection rate of 18.3 per 100,000 inhabitants. In the last five years, the country has recorded an average of 40,000 new cases of AIDS, of which about 67% are among men and 33% among women. It is estimated that around 866 thousand individuals live with HIV in the country and, among these, 135 thousand do not know their serological status².

In 2017, 58.1% of reported HIV cases occurred in black people, and overall, the sex ratio was 2.6 cases in men to one in women. A higher number of HIV cases are also reported among young people at the age group of 20 to 29 years old. The proportional distribution of HIV cases indicates a concentration in the Southeast and South regions, with 47.4% and 20.5% of the cases, respectively. The Northeast, North and Central-West regions correspond to 17%, 8% and 7.1% of total cases, respectively. This information indicates the tendency of concentration of HIV cases in metropolitan regions and municipalities with more than 100 thousand inhabitants². Infection by HIV in the total Brazilian population has an estimated prevalence rate of 0.4% since a few decades ago³.⁴. However, while HIV prevalence stabilizes in the general population, more vulnerable population

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segments with higher risk of infection concentrate higher prevalence. In studies conducted in 12 Brazilian cities in 2016, weighted seroprevalences ranged from 5.3% among female sex workers (FSW)⁵ to 17.5% among men who have sex with men (MSM)⁶, reaching more than 40% in the population of transsexual women (TW) in some capitals⁷.

Antiretroviral treatment (ARVT) has brought precise benefits to reduce AIDS-related morbidity and mortality, improving the quality of life of people living with HIV/AIDS (PLHIV). Currently, 91% of people undergoing treatment have undetectable viral load and very low chances of HIV transmission^{2,8}. As a result of advances in ARVT, HIV post-exposure prophylaxis (PEP) was implemented in 2012, and sexual pre-exposure prophylaxis (PrEP) since December 2017 on the Unified Health System (SUS)⁹.

However, major key populations are still not being adequately addressed by prevention, treatment and comprehensive care measures with interventions and services for sexually transmitted infections (STIs), HIV and viral hepatitis. In Brazil, the most vulnerable key-populations, such as young MSM, TW and FSW populations, face exclusion or difficulties in accessing health services for a variety of reasons. As in other parts of the world, these segments are reluctant to be tested for HIV and attend treatment services for fear of discrimination and social consequences¹⁰.

The Department of Chronic Conditions and Sexually Transmitted Infections (DCCI – Doenças de Condições Crônicas e Infecções Sexualmente Transmissíveis) addresses the response to STI, HIV and viral hepatitis-related illnesses based on scientific evidence and has thus supported important epidemiological, clinical, biomedical, behavioral and psychosocial studies, whose results contribute to qualify the Brazilian response and strengthen public policies in the area. These studies are developed in partnership with Brazilian researchers associated with research institutions such as those of higher education, foundations, institutes and public or private non-profit research and development centers, as well as with public companies, health services and society organizations that research activities in science, technology and innovation¹¹.

The articles that compose this supplement show results that contribute to a better understanding of the scenario of determinants and factors associated with HIV; estimates of HIV prevalence in the population of male conscripts, pregnant women and parturients; on identifying the dynamics of risk behaviors in key-populations (e.g., MSM, FSW and TW); of HPV prevalence; of microbial resistance analyses; of sentinel programs for epidemiological HIV surveillance in Brazil; and the social dynamics of these diseases. The studies and researches conducted are part of the strategic information activities in the surveillance of STIs, HIV and viral hepatitis, which is based on the commitment to disseminate the generated knowledge to everyone interested in technical and scientific information, with it being used as support for the process of interaction between managers and researchers in decision-making, with direct application in the strengthening of new technologies within the SUS system.

REFERENCES

- Joint United Nations Programme on HIV/AIDS. Miles-to-go: closing the gaps, breaking barriers, righting injustices: Global AIDS update 2018. Geneva; 2018 [cited 2019 Jul 5]. Available from: https:// www.unaids.org/sites/default/files/media_asset/ miles-to-go_en.pdf
- 2. Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Departamento de Vigilância, Prevenção e Controle das Infecções Sexualmente Transmissíveis, do HIV/Aids e das Hepatites Virais. Boletim Epidemiológico HIV/Aids. Brasília, DF; 2018 [cited 2019 Jul 12];49(53). Available from: http://www.aids.gov.br/system/tdf/pub/2016/66196/boletim_hiv_aids_12_2018. pdf?file=1&type=node&id=66196&force=1
- Szwarcwald CL, Pascom ARP, Souza Junior PR. Estimation of the HIV incidence and of the number of people living with HIV/AIDS in Brazil, 2012. J AIDS Clin Res. 2015;6(3):430. http://dx.doi.org/ 10.4172/2155-6113.1000430
- Sperhacke RD, Motta LR, Kato SK, Vanni AC, Paganella MP, Oliveira MCP, et al. HIV prevalence and sexual behavior among young male conscripts in the Brazilian army, 2016. Medicine. 2018;97(1 Suppl):S25-31. http://dx.doi.org/10.1097/ MD.000000000000000014
- Szwarcwald CL, Damacena GN, Júnior PRBS, Guimarães MDC, Almeida WS, Pate A, et al. Factors associated with HIV infection among female sex workers in Brazil. Medicine. 2018;97(1 Suppl):S9-15. https://dx.doi.org/10.109 7%2FMD.00000000000000013
- Kerr L, Kendall C, Guimarães MDC, Salani Mota R, Veras MA, Dourado I, et al. HIV prevalence among men who have sex with men in Brazil: results of the 2nd national survey using respondent-driven sampling. Medicine. 2018;97(1 Suppl):S9-15. https:// dx.doi.org/10.1097%2FMD.0000000000010573
- Bastos FI, Bastos LS, Coutinho C, Toledo L, Mota JC, Velasco-de-Castro CA, et al. HIV, HCV, HBV, and

- syphilis among transgender women from Brazil: assessing different methods to adjust infection rates of a hard-to-reach, sparse population. Medicine. 2018;97(1 Suppl):S16-24. https://dx.doi.org/10.10 97%2FMD.00000000000009447
- Grinsztejn B, Hosseinipour MC, Ribaudo HJ, Swindells S, Eron J, Chen YQ, et al. Effects of early versus delayed initiation of antiretroviral treatment on clinical outcomes of HIV-1 infection: results from the phase 3 HPTN 052 randomised controlled trial. Lancet Infect Dis. 2014. 14(4):281-90. https://dx.doi.org/ 10.1016%2FS1473-3099(13)70692-3
- Luz PM, Benzaken A, Alencar TM, Pimenta C, Veloso VG, Grinsztejn B. PrEP adopted by the Brazilian National Health System: what is the size of the demand? Medicine. 2018;97(1 Suppl):S75-77. https:// dx.doi.org/10.1097%2FMD.0000000000010602
- Baggaley R, Armstrong A, Dodd Z, Ngoksin E, Krug A. Young key populations and HIV: a special emphasis and consideration in the new WHO Consolidated Guidelines on HIV Prevention, Diagnosis, Treatment and Care for Key Populations. J Int AIDS Society. 2015;18(2Suppl 1):19438. https:// dx.doi.org/10.7448%2FIAS.18.2.19438
- 11. Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Departamento de DST, Aids e Hepatites Virais. Pesquisa e desenvolvimento em IST/HIV/ aids/hepatites virais no Brasil, 2012 a 2016: inventário e catalogação das pesquisas oriundas dos editais públicos realizados pelo Departamento de Vigilância, Prevenção e Controle das IST, do HIV/Aids e das Hepatites Virais e parcerias institucionais entre 2012 e 2016. Brasília. DF: 2018.

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