

Persistence of syphilis as a challenge for the Brazilian public health: the solution is to strengthen SUS in defense of democracy and life

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The World Health Organization (WHO) acknowledged that, despite advances in prevention and treatment within the scope of the global health sector strategy for HIV, viral hepatitis, and sexually transmitted infections (STIs) for 2016-2021, critical problems persisted (even before the COVID-19 pandemic) which could jeopardize the accomplishment of the 2030 *Sustainable Development Goals* ^{1,2}. In 2021, the 74th World Health Assembly approved the need for new coping strategies for 2022-2030 ¹. The implementation of health care actions integrated with surveillance and control, ensuring access to primary healthcare (PHC) diagnosis, treatment, and monitoring, has been the major challenge to achieve control of the disease ^{2,3}.

In Brazil, the persistence of syphilis as a public health problem is unequivocal, considering the limitation of access to adequate diagnosis and treatment in the Brazilian Unified National Health System (SUS) care network ^{3,4}. The challenge grows in the current political-institutional moment due to PHC unraveling changes in the face of new SUS financing modalities ⁵. This new model has been developed since the enactment of the *95th Constitutional Amendment* in 2016, which limited public spending due to unprecedented crises and austerity for 20 years ^{5,6}, thus, making room for the deconstruction of SUS universality ^{5,6}, generating, in addition to limited access, the expansion of inequalities, affecting the control of syphilis.

Data from the Brazilian Ministry of Health from 2012 to 2018 indicate a variation in the detection rate of acquired syphilis (per 100,000 inhabitants) from 14.4 to 74.4 and from 5.7 to 21.5 in pregnant women, as well as in the incidence rate of congenital syphilis (per 1,000 live births), from 4.0 to 9.0 ^{4,7}. This increase is associated with factors such as access to rapid testing, misinformation, decline in the use of condoms, reduced use of benzathine penicillin in PHC, and drug shortage ^{8,9}. Limited access to the active pharmaceutical input of penicillin has brought great challenges ^{4,8,9}. Shortage in health services in the municipality of Rio de Janeiro showed non-homogeneity over time (2014, 2015, and 2017) and space, especially in poorer programmatic areas with greater syphilis detection ⁹.

Despite the magnitude of syphilis, Brazilian data can translate underreporting underestimates, compromising health planning actions ^{3,4,10}. We also highlight the effect of COVID-19 with reduced case detection ³ in 2020-2021.

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Proper diagnosis and treatment during pregnancy can prevent congenital syphilis ^{2,3,4,7,10}. Its persistence evinces maternal and childcare problems (especially prenatal care) due to non-access to diagnosis, late access to results or inadequate, interrupted or absent maternal syphilis treatment ⁷. We reiterate that prenatal care should involve fathers' or partners' participation to diagnose syphilis or other STIs with adequate treatment ^{7,10}.

Brazil has recorded an increase in prenatal coverage, with regional differences which also include quality of care ^{7,11,12}. The analysis of data from 2012 to 2018, available via the three cycles of the Program for Improvement of Access and Quality of Basic Healthcare (PMAQ-AB), showed an increase trend (from 71% to 81%) in the proportion of women with prenatal PHC ¹².

A study in Brazilian capitals recognized an about 80% average rate of prenatal care adequacy, with heterogeneous performance among regions. Prenatal inadequacy was associated with a worse Municipal Human Development Index (MHDI), age below 20 years, less than four years of schooling, non-white race/skin color, and absence of a partner ¹¹. In turn, gestational syphilis cases were associated with a higher proportion of adolescents, low schooling level, and non-white race/skin color. Almost 20% of the mothers of children with congenital syphilis had no prenatal consultations – seven times more than the general population. Moreover, the data show poor gestational syphilis diagnosis, management, and treatment. The PMAQ-AB analysis showed insufficient availability of the following inputs: 27.3% for rapid syphilis tests, 67.7% for benzathine benzylpenicillin, and 86.7% for administration by PHC teams ¹¹.

Syphilis has a high and increasing prevalence in vulnerable populations, especially men who have sex with men, sex workers, and people deprived of liberty, with regional differences ^{3,4}. The dimensions of vulnerability in syphilis are also visible in its higher proportion in women, especially brown/black ones ⁴. The prevalence of at least one STI in *quilombola* women was estimated at 18.5% (syphilis, 4.3%) if they had low schooling level and limited access to health services ¹³.

The *First National Survey of Indigenous People's Health and Nutrition* (almost 4,000 women) showed significant ethnic-racial inequalities. It found less access to prenatal care, when compared to non-indigenous women and populations with high social vulnerability and low health care coverage (Legal Amazon and Northeast). Only 16% of indigenous pregnant women had six or more prenatal consultations and out of these, 57.6% had requested syphilis tests ¹⁴.

Unequal access to prenatal consultations and timely testing to diagnose HIV infection and syphilis has also been verified. Individual factors related to pregnant women's schooling level contribute to this, as does contextual factors related to MHDI and Gini index ¹⁵.

The national response to vertical transmission by HIV in relation to that of *Treponema pallidum* ^{4,16,17} shows differences. The difference observed in surveillance and prevention actions, and prenatal care and newborn exposed children, shows better HIV management, with regional differences ¹⁶. The detection rate of HIV infection in pregnant women in 2010 was 2.1 cases/1,000 live births and, in 2020, 2.7, with a regional increase, especially in the Brazilian North and Northeast. However, AIDS detection rates in children aged under five years – a proxy for monitoring vertical HIV transmission – decreased by almost 70% in the 10 analyzed years ¹⁷.

PHC "longitudinality" should be recognized as a SUS dimension to control syphilis. The verification of the low proportion of women with puerperal consultation limits significant

meetings with healthcare providers, negatively affecting women and children's current and future health¹⁸. It also includes the equitable distribution of health services to overcome restrictions on the universalization of access^{5,6,9,13,14,15}.

We recognize the need to advance the discussion on syphilis control and the CSP have sought to contribute throughout its trajectory. It published about 40 related articles since 1985. Its most recent one is in this issue¹⁹, entitled *Assessment of the Appropriate Management of Syphilis Patients in Primary Health Care in Different Regions of Brazil from 2012 to 2018*, authored by Mirelle de Oliveira Saes (Federal University of Rio Grande) et al., with consistent evidence in view of the limitation of evidence in the undertaken approach.

In addition to changes in the political-institutional and socioeconomic context of Brazil, the period of this study includes the expansion of PHC coverage and different government initiatives to qualify actions to control syphilis and other STIs^{4,7,9}, with an increase in the number of syphilis cases⁴.

It is an epidemiological research based on national estimates of annual changes in infrastructure and work processes to diagnose, to manage, and to treat the disease. The analysis is based on data from external PMAQ-AB evaluation, considering the three available cycles (2012, 2014, and 2018)¹⁹. Contextual variables included macroregion, municipality housing capacity, MHDI, and coverage of the Family Health Strategy (FHS).

The reach, the progressive participation of municipalities and PHC teams, and the evaluative potential made possible by the PMAQ-AB is remarkable¹⁹. The program has been recognized as an innovative and very useful action to induce the improvement of PHC quality at SUS^{19,20}.

Despite the progress in the percentage change in the parameters of adequate infrastructure and proper work process, it does not reach the necessary conditions for controlling syphilis. There are inequities, with more positive results in richer regions, municipalities with higher MHDI, greater housing capacity, and lower FHS coverage¹⁹. These findings are relevant, even though it is impossible to establish inferences on the relation between adequate infrastructure and work process with attention and care to people with syphilis in PHC^{19,20}.

The inclusion of PMAQ-AB data has been undertaken in studies dealing with different themes, allowing for the integration of perspectives and showing critical issues in the SUS²⁰. In a study on the availability of inputs for reproductive planning, there was an increase from 1.5% to 10.9%, with worse results in Northern Brazil. Higher increases were observed in health units in municipalities with lower MHDI and which adhered to all cycles²¹. Another nationwide study, considering the three PMAQ-AB cycles from the perceptions of female users, indicated that expanded and timely provision of prenatal care in the PHC network is an insufficient condition to ensure successful pregnancy. It reiterated that the prevention of unfavorable outcomes to maternal and child health requires adequate, integrated, and longitudinal care during pregnancy, childbirth, and puerperium¹⁸.

The relation between diagnosis coverage and syphilis treatment in PHC and its gestational and congenital incidence was also evaluated in research of the second PMAQ-AB cycle. Administration of penicillin and rapid testing in the municipalities reached proportions of 41.9% and 67.1%, respectively, with regional differences. The incidence of gestational syphilis was higher in municipalities with a higher supply of rapid testing, indicating greater detection capacity. On the other hand, municipalities with reduced vertical trans-

mission of *T. pallidum* showed a higher supply of rapid tests and administration of benzathine penicillin ²².

Despite its widely documented relevance, PMAQ-AB was discontinued by the Federal Government in early 2019 and was replaced by the Prevent Brazil programme. Since 2020 this change has implied a setback in the financing process and PHC evaluation ^{6,7,19}.

The challenges are broad and require research and broad engagement in defense of SUS. Collective Health, as a scientific field and movement, plays a relevant role in generating evidence not only by Epidemiology (the main perspective of the highlighted article) but also by Social and Human Sciences, and the Health Policy, Management and Planning.

A recent document of the Brazilian Association of Collective Health (Abrasco) ²³ analyzes the current SUS situation in the context of COVID-19, with established proposals. It aims to support greater reflection, in addition to provide subsidies to build agendas based on science and strengthen SUS. Among its proposals are ensuring regular and sufficient funding for the population's health needs; adapting care model to needs; strengthening and consolidating the public character of SUS; expanding political, organizational, and operative integration in SUS; improving SUS management in a democratic and participatory manner; ensuring the occupation of management positions on a technical basis; implement an integrated personnel policy for SUS and sustaining a policy of health science, technology, and innovation ²³.

Therefore, achieving syphilis control in Brazil necessarily requires us to follow the paths to *strengthen SUS in defense of democracy and life*.

Additional information

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