P278 STRATEGIES DEVELOPED BY MINISTRY OF HEALTH OF BRAZIL TO INCREASE HIV DIAGNOSIS SINCE 2012

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Background In 2012, 69% of people living with HIV (PLHIV) in Brazil knew their HIV status. In contrast 731,000 thousand people were diagnosed until 2017, corresponding 84% of the current 866,000 PLHIV in the country. This study aims to describe the actions developed to increase HIV diagnosis in Brazil since 2012.

Methods HIV rapid test (RT) in primary care settings has been being the key strategy to enhance HIV diagnosis in Brazil. Therefore, it was crucial to increase the number of health-care professionals capable to perform RT. Considering the need of an alternative training method to on-site, the Ministry of Health (MoH) has been offering the free distance learning course called TELELAB. In addition, the National Program of External Quality Assessment for RT (EQA-RT) was introduced to monitor the quality of the RT performed by those health-care professionals. The use of oral fluid RT was also implemented to develop outreach strategies to promote HIV testing.

Results There was a 270% increase in the number of RT acquired and distributed by the MoH between 2012 and 2018, totalizing 14 million tests in 2018. In 2018, 15,146 professionals were certified online by TELELAB on the HIV diagnosis course, leading to a total of 42,026 professionals since 2012. Eighteen rounds of EQA-RT were conducted, with around 90% approval at the last one. Finally, since 2014, outreach strategies performed 174,000 oral fluid RT by peer-to-peer testing by non-governmental organizations focusing on key-population.

Conclusion The synergy of the strategies described was crucial to ensure the reliability and credibility of the RT results and to reach the population not reached previously by the standard testing, resulting in 15% increase of HIV diagnosis in the period of 2012–2017. Since 2018, the MoH started the free of charge distribution of HIV self-testing as a new tool to continuously improve diagnosis strategies.

Disclosure No significant relationships.

P279 DEVELOPMENT AND VALIDATION OF SEXUALLY TRANSMITTED INFECTIONS DECISION MODELLING SOFTWARE IN COOPERATION WITH POLICY MAKERS

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Background HIV and other sexually transmitted infections (STIs) do not operate in isolation, particularly as people with risk-taking sexual behaviour may be co-infected. In this complex landscape, policy makers are limited by resource constraints while trying to find optimal coverage solutions. Disease modelling could help in this context. We aim to

develop a user-friendly modelling software examining several STIs and HIV simultaneously, as we are unaware of any multi-STI decision support tools currently available.

Methods We developed STI modelling software using the programming language *Java*, consisting of several models and a graphical user interface (UI). The models were drafted based on literature reviews and subsequently refined by experts, e.g. STI clinicians and policy makers. All models were internally and externally validated. The UI was developed with UI development experts and policy makers.

Results Separate disease models, which describe the progression of chlamydia, gonorrhoea, HIV, syphilis, and their sequelae are included in the software. Sexual network models are used to describe the formation and dissolution of partnerships and thereby the occurrence of sexual contacts. Four different network models are included in the software. The clinical pathway models describe interventions, for example screening or STI treatment and reflect the current UK setting. All the models are interacting, individual-based discrete event simulations and have been validated using sensitivity analyses and publicly available data sources. The UI has been validated by policy makers.

Conclusion With this modelling software policy makers can compare both existing and hypothetical intervention options in regards to their costs and consequences. All the parameters, formulas, model structures, and clinical pathways are editable. The software is flexible and usable in different settings and contexts. It can be and updated if needed, e.g. if medical knowledge changes. By adapting parameters which describe treatment pathways the software could be used in non-UK settings.

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P280 USE OF MOBILE HEALTHCARE UNITS IN RAPID TEST EVENTS IN COMBATING SEXUALLY TRANSMITTED INFECTIONS

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Background Social engagement used as a tool for providing access to information and testing for Sexually Transmitted Infections (STIs) during events can be a promising strategy for reaching different population groups in public settings. The use of Rapid Tests (RT) for syphilis offers an unique opportunity to facilitate care in response to the syphilis epidemic. The objective of this study is to evaluate the epidemiological profile of people with positive RT for syphilis observed during RT events in Porto Alegre City, Brazil.

Methods Cross-sectional study using a time series approach in all RTs carried out in Mobile unit RT events in 2018, through data mining, with WEKA software.

Results The events were held in public spaces, such as squares and parks, included roundtable discussions, presentations, condom distribution, RTs for STIs, individual medical care with possibility of prescription and application of medication.