THE IMPACT OF THE COVID-19 LOCKDOWN ON HIV CARE CONTINUUM IN CHINA

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BACKGROUND

China implemented strict lockdowns to contain COVID-19 at the early stage. We aimed to evaluate the impact of COVID-19 on HIV care continuum in China.

METHODS

Anonymized programmatic data on HIV care continuum between 1 January 2017 and 31 December 2020 were collected from seven provincial and municipal centers for disease control and prevention and eight major infectious disease hospitals specialized in HIV care in various regions in China. We used descriptive statistics to summarize demographic and clinical data, and performed interrupted time series analysis to characterize temporal trend in monthly numbers of HIV tests, HIV diagnosis, HIV antiretroviral therapy (ART) initiations, ART collections, and HIV post-exposure prophylaxis (PEP) prescriptions before, during and after the national lockdown period (23 January to 7 April 2020). We used Poisson segmented regression models to estimate the immediate impact of the lockdown on these outcomes, as well as post-lockdown trends.

Significant declines in the number of HIV tests (**-32.8%**), HIV diagnoses (**-27.1%**), and PEP prescriptions (**-63.8%**) in the first month of COVID-19 lockdown in China were found.

RESULTS

During the study period, we recorded 1,101,686 HIV tests, 69,659 HIV diagnoses, 63,458 ART initiations, 1,593,490 ART collections, and 16,780 PEP prescriptions. A median of 789 (IQR 367-975), 409 (278-626), and 1045 (524-1262) HIV tests per day were recorded before, during and after lockdown. Lockdown was associated with 32.8% decrease in HIV testing in January 2020, the first month after lockdown (incidence rate ratio [IRR] 0.672; 95% confidence interval [CI] 0.585-0.772). Daily HIV diagnoses decreased from a median of 50 (7-76) before lockdown, to 23 (6-46) during lockdown, and back to 48 (12-74) after lockdown, with an estimated 27.1% decrease in January 2020 (0.729, 0.599-0.887). There was no marked change in the number of ART initiation and ART collection during the lockdown, but the number of ART collection was lower than the expected level by the end of December 2020 (0.761, 0.659-0.879). The number of monthly PEP prescriptions decreased significantly during the lockdown (0.362, 0.220-0.595) and still had not recovered to the expected level by the end of December 2020 (0.456, 0.362-0.574). With the ease of restrictions, HIV testing (slope change 1.067/month, 1.048-1.086) and PEP prescriptions (1.077/month, 1.016-1.142) showed a significant increasing trend.

CONCLUSIONS

ART initiation and ART collection generally remained stable during the lockdown, but HIV testing, HIV diagnosis and PEP prescription were affected. ART collection and PEP prescriptions have not recovered to expected levels in the eighth month after the suspension of lockdown.

KEY WORDS

COVID-19; lockdown; HIV; interrupted time series analysis; China

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