

# Changes In Pre-Exposure Prophylaxis Prescribing Across Australian Primary Care And Sexual Health Services Following Covid-19 Social Restrictions

## Authors

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## Background:

The first case of COVID-19 in Australia was diagnosed on 25<sup>th</sup> January 2020. In response, the Australian government announced staged restrictions, including the closure of non-essential services implemented between 23<sup>rd</sup>-29<sup>th</sup> March. To explore the impact of lockdown restrictions on HIV prevention, we used sentinel surveillance data to estimate trends in PrEP prescribing across Australia before and after the implementation of COVID-19-related restrictions.

## Methods:

Data were extracted from 42 GP and sexual health services across each state and territory (except NT). Tenofovir/emtricitabine prescriptions (excluding PEP) among HIV-negative individuals between 1<sup>st</sup> January 2019 and 31<sup>st</sup> July 2020 were included. We performed an interrupted time-series analysis of weekly PrEP prescriptions before and after the week starting April 1<sup>st</sup> 2020 (week following lockdown announcements). We report the mean number of weekly PrEP prescriptions in each period, trend for change in weekly PrEP prescriptions pre-restrictions ( $\beta_1$ ), the immediate decline in predicted weekly PrEP prescriptions at 1<sup>st</sup> April 2020 ( $\beta_2$ ), and trend for change in weekly PrEP prescriptions post-restrictions ( $\beta_3$ ).

## Results:

53,596 PrEP prescriptions among 19,876 individuals (96.3% male) were included. The mean number of weekly prescriptions was 718 and 543 in the pre- and post-restrictions periods, respectively (24.4% decline between periods). The weekly number of prescriptions was stable pre-restrictions ( $\beta_1 = -0.2$ ;  $P = 0.734$ ). At April 1<sup>st</sup>, there was an immediate 33.3% decline in predicted weekly PrEP prescriptions ( $\beta_2 = -236$ ;  $P = 0.001$ ), followed by a non-significant increasing trend post-restrictions ( $\beta_3 = +10.6$ ;  $P = 0.178$ ). The largest absolute decreases were observed in Victoria ( $\beta_2 = -106$  [-36.0%];  $P < 0.001$ ) and NSW ( $\beta_2 = -85$  [-33.9%];  $P = 0.002$ ). Significant declines were observed in ACT ( $P = 0.001$ ), Tasmania ( $P = 0.002$ ) and SA ( $P = 0.005$ ), but not in WA ( $P = 0.806$ ) or Queensland ( $P = 0.404$ ).

## Conclusion:

Reductions in PrEP prescribing were observed following lockdown restrictions. Further understanding of how social restrictions are impacting sexual behaviours, access to HIV prevention and testing practices will be crucial in ascertaining how COVID-19 will affect trends in HIV/STIs.

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