

# Australia's progress towards achieving 95-95-95: trends in epidemiological metrics between 2004-2022

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## Background:

We describe Australia's overall progress towards achieving the UNAIDS 95-95-95 targets by analyzing the trends in epidemiological metrics between 2004-2022.

## Methods:

We used mathematical modelling and national HIV notification, cohort, linkage, and administrative data to calculate annual estimates for the HIV cascade, the number of annual new HIV infections, and other HIV epidemic metrics during 2004–2022. We used piecewise negative binomial regression to determine changes in trends and annual rate ratios (ARRs) for each cascade step and metric.

**Results:** By the end of 2022, Australia was close to meeting all UNAIDS 95-95-95 targets. We estimate there were 28,870 (range: 25,380–33,710) people with HIV, of whom 26,850 (range: 25,230–31,310) had been previously diagnosed (93·0%). Of people diagnosed, 94·7% [*n* = 25,430 (range: 25,230–25,480)] were receiving treatment and 25,030 (range: 24,650–25,260) or 98·4% of those treated had a suppressed viral load. There were reductions in each gap of the cascade, with large reductions in the number untreated (5,330 to 1,420) and with unsuppressed virus (3,030 to 400). After a large fall in the number untreated between 2011-2014 (ARR = 0.847), the percentage diagnosed (ARR = 1.016 since 2019) and on treatment (ARR = 1.034 since 2016) has only increased slowly. Changes in the cascade gaps coincided with an increase, stabilization, and fall in estimated new HIV infections from 870 in 2004 rising to a peak of 1,094 in 2010 and then falling to 230 in 2022. Most cascade metrics showed substantial improvement between 2004-2019, with further improvement during 2020-2022 (coinciding with the early years of the COVID-19 pandemic).

## Conclusion:

While Australia saw substantial progress towards reaching all 95-95-95 targets by 2025, further progress is not guaranteed. Despite large falls in new infections, gaps in the cascade related to diagnosis and treatment remain meaning additional but sustainable efforts are needed.

## Disclosure of Interest Statement:

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