

# Trends in HIV testing and HIV stage at diagnosis among people newly diagnosed with HIV

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## Background:

Few published studies have characterised reasons for HIV testing among those newly diagnosed with HIV, including comparing asymptomatic screening with symptomatic testing. Understanding trends in testing and stage of HIV at diagnosis will inform refinement of HIV testing guidelines and facilitate earlier HIV diagnoses.

## Methods:

Using Australian national notification records of people diagnosed with HIV between 1 January 2017 and 31 December 2022 we described reasons for testing leading to an HIV diagnosis. We also combined non-mutually exclusive reasons for testing with clinical status at diagnosis to derive HIV testing categories and described trends in these categories over time. Categories included testing while symptomatic, asymptomatic HIV screening, seroconversion, and other test reason. Additionally, we stratified these categories by stage of HIV at diagnosis (late-stage HIV defined as a CD4 count <350 cells/μL at time of diagnosis).

## Results:

Among 4,232 HIV notification records included in the study, 4,134 had at least one reason for testing recorded. Of these, STI screening was the most common reason for testing (38%), followed by presenting with symptoms indicative of HIV (31%) or reported risk behaviour (13%). People aged 50 years or older (24%), people reporting an exposure of heterosexual sex (21%), people born in Sub-Saharan Africa (19%), and Women (17%) had lower proportions of asymptomatic HIV screening. More late-stage HIV diagnoses resulted from testing while symptomatic (58%) compared with asymptomatic screening (25%).

## Conclusion:

Older people and heterosexuals may not routinely access HIV focused healthcare but instead encounter HIV testing opportunities in other contexts. By normalising HIV testing and offering low-cost HIV screening in a range of settings, it may be possible to facilitate earlier HIV diagnoses, improved health outcomes, and reduced onward transmission. These findings support the recent update to Australian HIV testing

guidelines to encourage broader HIV screening and encourage implementation of similar guidelines elsewhere.

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