

NEW SOUTH WALES HIV DIAGNOSIS AND CARE CASCADE, 2016: MEETING THE UNAIDS 90-90-90 TARGETS.

Keen P¹, Gray R¹, Guy R¹, Telfer B², Callander D¹, Schmidt H-M³, Holden J³, Whittaker B³, Velecky M³, Wilson D⁴, Cooper DA¹, Holt M⁵, Prestage G¹, Selvey C², Grulich A¹, on behalf of the NSW HIV Prevention Partnership Project.

¹ The Kirby Institute, UNSW Sydney, ² Health Protection NSW, ³ NSW Ministry of Health, ⁴ The Burnet Institute, ⁵ Centre for Social Research in Health, UNSW Sydney.

Background: We estimated the 2016 HIV diagnosis and care cascade for NSW, and report on progress towards the UNAIDS 90-90-90 targets and overall goal of 73% of all people living with HIV (PLHIV) with suppressed virus, with a focus on enhanced data collection to improve cascade estimates.

Methods: HIV notifications were used to estimate the *number of people living with diagnosed HIV* in NSW to 31 December 2016, adjusting for duplicates, deaths and migration. Data from a 6-month follow-up system for new HIV diagnoses were used to refine migration estimates. Back-projection modelling using CD4 count at diagnosis was used to estimate the number of undiagnosed PLHIV. We used patient-level prescription claims data from the Pharmaceutical Benefits Scheme to estimate the *number of PLHIV on antiretroviral therapy (ART)*, with an adjustment for ART use among temporary residents who were not eligible for Medicare. We estimated the proportion with *suppressed virus* using viral load tests conducted among PLHIV attending clinics in the ACCESS network, which was enhanced to enable de-identified linkage of patients across clinics, and expanded to include additional GPs, hospitals and sexual health clinics.

Results: We estimated there were 9,990 PLHIV in NSW in 2016, of whom 9,285 (92.9%) were diagnosed, and 705 were undiagnosed (7.1%). The proportion undiagnosed was lower in MSM (5.5%) compared to people with other HIV exposure risks (15.3%). Of those diagnosed, 8,483 (91.4%) were receiving ART. Of PLHIV receiving ART, 8,016 (94.5%) had a suppressed viral load (<200 HIV-1 RNA copies/mL). Overall we estimated 80.2% of PLHIV in NSW in 2016 were virologically suppressed.

Conclusion: NSW met the UNAIDS 90-90-90 targets in 2016, with efforts continuing to surpass these goals. The enhanced data collection systems that were introduced provided more timely and representative data, and could be utilised in other settings.

Disclosure of Interest Statement: The Kirby Institute, and the Centre for Social Research in Health are supported by the Australian Government Department of Health. This analysis was supported by funding from an NHMRC Partnership Project grant (Grant #1092852), the NSW Ministry of Health, and UNSW Sydney. No pharmaceutical grants were received in the conduct of this study.