

Collaborative Care

Interdisciplinary HIV Testing and Linkage to Care





At Burnet Institute, we proudly acknowledge the Boon Wurrung people of the Kulin Nations as the Traditional Custodians of the land on which our office is located and recognise their continuing connection to land, waters and community. We acknowledge Aboriginal and Torres Strait Islander peoples as Australia's First Peoples and acknowledge that sovereignty was never ceded. We pay our respect to Elders past and present, and extend that respect to all First Nations people.







Disclosures

- Received funding for investigator-initiated research unrelated to this work from Gilead and Abbvie
- Consultant fees for activities unrelated to this work from Gilead





Overview

- 1. Epidemiology of HIV in Australia
- 2. Framing the presentation: collaborative and interdisciplinary HIV Care in the Australian context
- 3. Examples of collaborative and interdisciplinary HIV care and their impact in Australia
- 4. Responding to new challenges



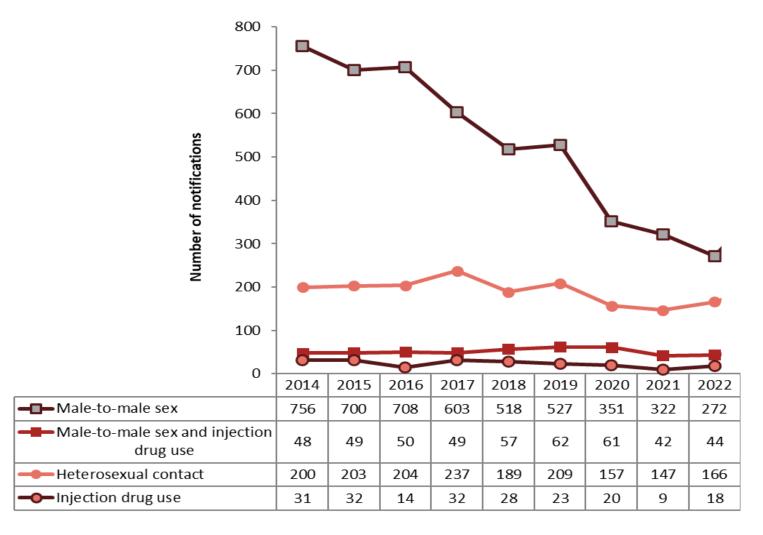
HIV Epidemiology in Australia

Success and challenges





HIV notifications, Australia, 2014 - 2022



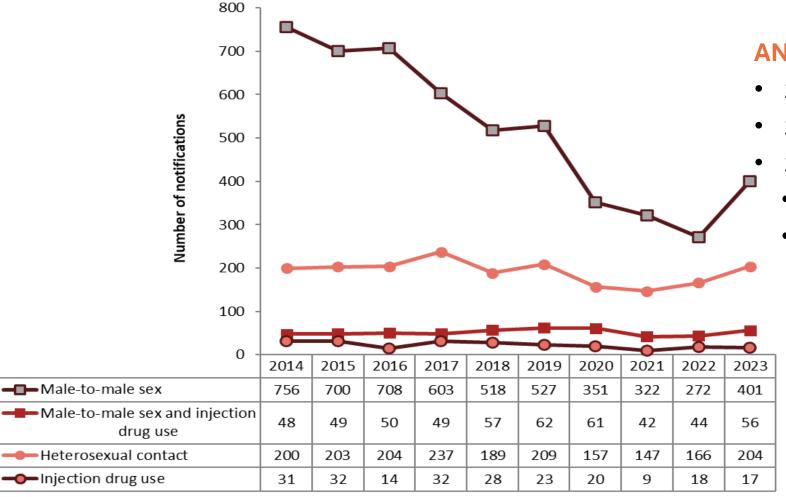
ANNUAL NOTIFICATIONS

- 2014 = 1,079
- 2022 = 553





HIV notifications, Australia, 2014 - 2023



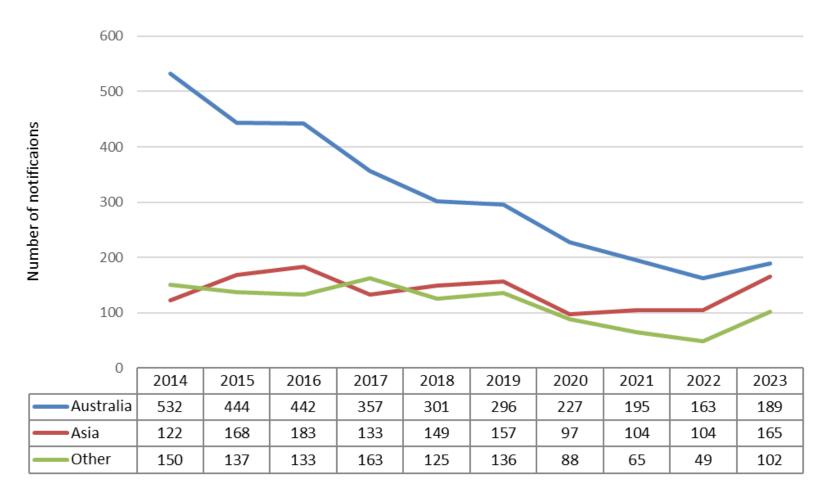
ANNUAL NOTIFICATIONS

- 2014 = 1,079
- 2022 = 553
- 2023 = 722
 - 31% increase overall
 - 47% increase in MSM





HIV notifications, male-to-male sex as exposure risk, by region of birth, 2014–2023



% increase 2022-23

- Aust-born = 16%
- Asian-born = 59%
- Born elsewhere = 108%





Framing collaborative and interdisciplinary HIV Care

The Australian Context





Collaborative Care: Interdisciplinary HIV

Testing and Linkage to Care





Darlinghurst, Sydney, 1978



"The atmosphere was more one of celebration than protest ... strangers joined hands ... our numbers swell ... people came out of the coffee shops, bars and hotels ... we had straight people willing to join in and support us."



Darlinghurst, Sydney, 1978



"On Darlinghurst Road we were ambushed ... police, arriving in numbers, took advantage of the semi darkness of the night to unleash a reckless and ugly attack

... 53 men and women were arrested, all of whom had their names and occupations published in The Sydney Morning Herald. Many lost their jobs or housing as a result."



Sydney Gay and Lesbian Mardi Gras







Community was at the heart of Australia's early HIV response







Community was at the heart of Australia's early HIV response

A PARNERSHIP APPROACH

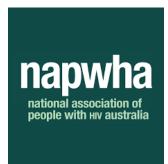
Community working with clinical, research and government partners





Community <u>remains</u> at the heart of Australia's early HIV response



















The voice of all people living with HIV









Examples of collaborative and interdisciplinary HIV care

Community partnering with researchers, clinicians and government









High Rates of Undiagnosed HIV Infections in a Community Sample of Gay Men in Melbourne, Australia

Pedrana, Alisa E. BBmed Sci (hons)^{†,†}; Hellard, Margaret E. MBBS, FRACP, PhD, FAFPHM^{†,†,‡}; Wilson, Kim BAppSc, PhD[§]; Suy, Rebecca BAppSc, MAppEpid, PhD[†]; Stoové, Mark PhD, GradDip(Ed), BaAppSci (Hons)^{†,†}

Author Information ⊗

'AIDS Journal of Acquired Immune Deficiency Syndromes 59(1):p 94-99, January 1, 2012. | DOI: 10.1097/QAI.0b013e3182396869

- 639 gay men recruited from social venues in Melbourne
- Behavioural survey + oral fluid specimen for HIV testing
 - 9.5% HIV bio-prevalence
 - 31% of HIV positive gay men in unaware of their infection
 - ~2/3 reported their last HIV test >12 months ago





Alarming new statistics have revealed a significant number of sexually active men on Melbourne's social scene are not aware they are HIV positive.

The Suck It and See study — the first of its kind in Australia — was conducted by the Burnet Institute in 2008 and collected anonymous saliva samples from 745 men from gay bars and clubs, sex-on-premises venues (SOPV) and sexual health clinics.

The results released this week revealed that about 10 percent of socially and sexually active men recruited to the survey were HIV positive.

Of the 100 men in the study who tested positive from a wider spectrum (not only from social venues), 20 percent were unaware they had HIV. Of the 639 men recruited specifically through social venues (including SOPVs), 61 tested positive, and 31 percent (or 19 men) were unaware they were HIV positive.

Head researcher Dr Mark Stoovè told Southern Star it was important not to generalise the results to the whole gay male population, however, he said the study indicates those engaging in risky sexual behaviour face an alarming risk.







Sexually Transmitted Infections

A 'test and treat' prevention strategy in Australia requires innovative HIV testing models: a cohort study of repeat testing among 'high-risk' men who have sex with men

Anna L Wilkinson ^{1, 2}, Carol El-Hayek ¹, Tim Spelman ¹, Christopher K Fairley ^{3, 4}, David Leslie ⁵, Emma S McBryde ^{1, 6}, Margaret Hellard ^{1, 2, 7}, Mark Stoové ^{1, 2}

Correspondence to Anna L Wilkinson, Centre for Population Health, Burnet Institute, 85 Commercial Rd, Melbourne VIC 3004, Australia; awilkinson@burnet.edu.au



"Seek, Test, Treat" Lessons From Australia A Study of HIV Testing Patterns From a Cohort of Men Who Have Sex With Men

Wilkinson, Anna Lee BA, MPH*,†; El-Hayek, Carol BASc, Grad Dip (Genetic Counselling), MAE*; Spelman, Tim MBBS, BSc, Grad Cert (Stats)*,†; Fairley, Christopher MBBS, PhD, FRACP, FAFPHM^{‡,§}; Leslie, David MBBS, FRACP^I; McBryde, Emma MBBS, FRACP, PhD, MBiostat*,§; Hellard, Margaret MBBS, PhD, FRACP, FAFPHM*,†; Stoové, Mark BASc, Grad Dip (Ed), PhD*,†

Author Information ⊗

JAIDS Journal of Acquired Immune Deficiency Syndromes 69(4):p 460-465, August 1, 2015. | DOI: 10.1097/OAI.000000000000613

Among gay men classified as high risk of acquiring HIV only 15% of were testing at recommended frequency.

Underscored barriers to clinic-based testing.

















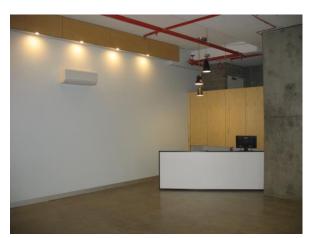


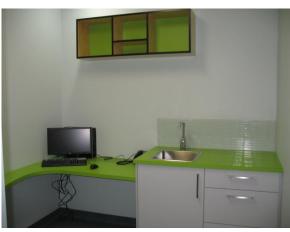


















Original Paper | Open Access | Published: 28 August 2017

Acceptability and HIV Prevention Benefits of a Peer-Based Model of Rapid Point of Care HIV Testing for Australian Gay, Bisexual and Other Men Who Have Sex with Men

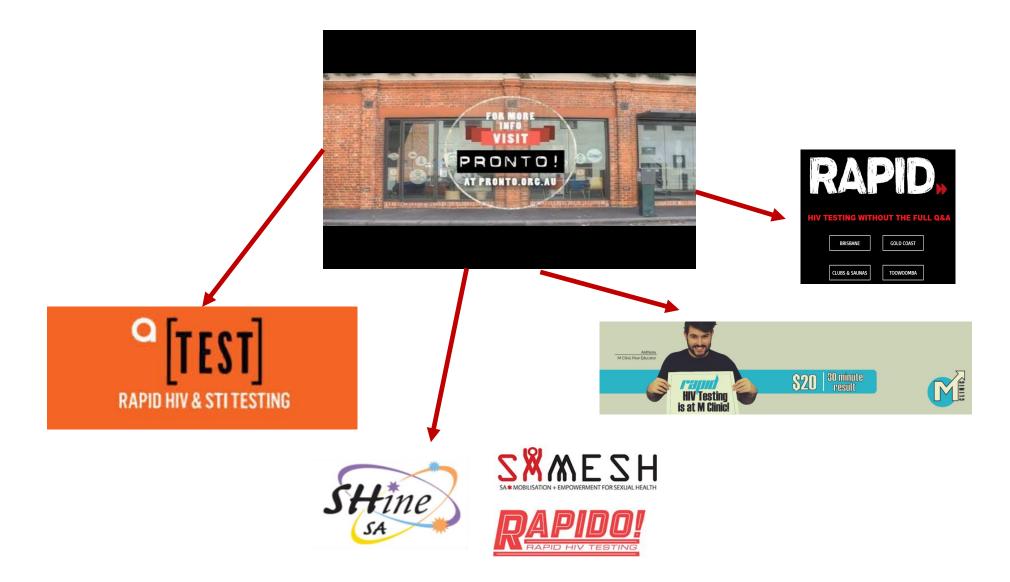
<u>David Leitinger</u>, <u>Kathleen E. Ryan</u>, <u>Graham Brown</u>, <u>Alisa Pedrana</u>, <u>Anna L. Wilkinson</u>, <u>Claire Ryan</u>, <u>Margaret Hellard</u> & <u>Mark Stoové</u> □

AIDS and Behavior 22, 178-189 (2018) Cite this article

TOTALLY PEER LED & DELIVERED

- >35,000 HIV, >70,000 STI tests
- Free tests for Medicare-ineligible migrants
- Integrated transgender primary care clinic















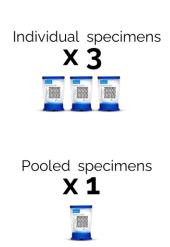
- 1st to trial HIV self-tests
- 1st to implement syphilis POCT
- 1st to integrate molecular POCT
- 1st to operate HIVST vending machine

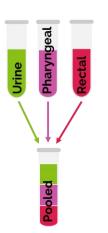
- Molecular biology and HIV/STI translation research
- Interdisciplinary and collaborative, with COMMUNITY at the core











Original RAPID protocol – 7 ml urine volume³

CSMO PUBLISHING
Small Radiol. 2000, 17, 15-21
https://dos.org/10.1071.511919028

Reduced sensitivity from pooled urine, pharyngeal and rectal
specimens when using a molecular assay for the detection of
chlamydia and gonorrhoea near the point of care

Steven C. Badman^{A+L*}, Sara F. E. Bell^{B*}, Judith A. Dean^B, Jime Lemoire^C, Luke Coffey^C,
Joseph Debattista^D, Andrew M. Redmond^{C*}, Owain D. Williams^B, Charles F. Cilks^{B*} and

Revised RAPID protocol - 1 ml urine volume⁴

Research letter

Improved sensitivity from pooled urine, pharyngeal and rectal specimens when using a molecular assay for the detection of chlamydia and gonorrhoea near point of care

Suddth Ann Dean 1, Sara Fiona Elizabeth Bell 1, Luke Coffey 2, Joseph Debattista 2, Steven Badman 4, Andrew M Redmond 2-2, David M Whiley 4-7, Jime Lemoire 2, Owain David Williams 1, Chris Howard 3, Charles F Gillis 1

Sensitivity CT 98.0% NG 93.2%



The NEW ENGLAND JOURNAL of MEDICINE

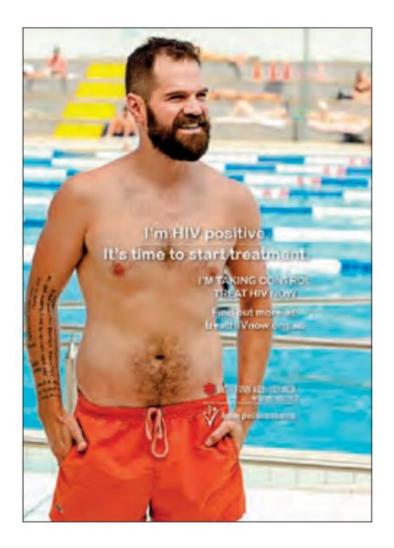
ESTABLISHED IN 1812

AUGUST 11, 2011

VOL. 365 NO. 6

Prevention of HIV-1 Infection with Early Antiretroviral Therapy

Myron S. Cohen, M.D., Ying Q. Chen, Ph.D., Marybeth McCauley, M.P.H., Theresa Gamble, Ph.D., Mina C. Hosseinipour, M.D., Nagalingeswaran Kumarasamy, M.B., B.S., James G. Hakim, M.D., Johnstone Kumwenda, F.R.C.P., Beatriz Grinsztejn, M.D., Jose H.S. Pilotto, M.D., Sheela V. Godbole, M.D., Sanjay Mehendale, M.D., Suwat Chariyalertsak, M.D., Breno R. Santos, M.D., Kenneth H. Mayer, M.D., Irving F. Hoffman, P.A., Susan H. Eshleman, M.D., Estelle Piwowar-Manning, M.T., Lei Wang, Ph.D., Joseph Makhema, F.R.C.P., Lisa A. Mills, M.D., Guy de Bruyn, M.B., B.Ch., Ian Sanne, M.B., B.Ch., Joseph Eron, M.D., Joel Gallant, M.D., Diane Havlir, M.D., Susan Swindells, M.B., B.S., Heather Ribaudo, Ph.D., Vanessa Elharrar, M.D., David Burns, M.D., Taha E. Taha, M.B., B.S., Karin Nielsen-Saines, M.D., David Celentano, Sc.D., Max Essex, D.V.M., and Thomas R. Fleming, Ph.D., for the HPTN 052 Study Team*





The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812

AUGUST 27, 2015

VOL. 373 NO. 9

Initiation of Antiretroviral Therapy in Early Asymptomatic HIV Infection

The INSIGHT START Study Group*





The message emphasised to the community treated early

POPULATION-LEVEL VIREMIA IS

- Not only how many people/
- How long the cy

are not virally suppressed, but ...

∕rtant ... get

2019 2021 2022 2023 2024 **(1) (1) (1) (1) (1)**



- 2,095 transitions to care
 - Median days 2012-13 = 3
 - Median days 2018-19= 0
- 1,899 transitions to ART initiation
 - Median days 2012-13 = 168
 - Median days 2018-19= 15
- 1,779 transitions to viral suppression
 - Median days 2012-13 = 84
 - Median days 2018-19

Longitudinal cascade, high caseload clinics in Melbourne and Sydney, 2012-2019

THE LANCET
HIV

ARTICLES | VOLUME 8, ISSUE 10, E623-E632, OCTOBER 2021

Improvements in transition times through the HIV cascade of care among gay and bisexual men with a new HIV diagnosis in New South Wales and Victoria, Australia (2012–19): a longitudinal cohort study

Daniela K van Santen, PhD • Jason Asselin, MEpi • Noah A Haber, ScD • Michael W Traeger, MSc • Denton Callander, PhD • Prof Basil Donovan, MD • Carol El-Hayek, MEpi • James H McMahon, FRACP • Kathy Petoumenos, PhD • Hamish McManus, PhD • Jennifer F Hoy, FRACP • Prof Margaret Hellard, PhD • Prof Rebecca Guy, PhD † • Prof Mark Stoové, PhD & † • On behalf of the TAIPAN investigators • Show less • Show footnotes

Published: September 08, 2021 • DOI: https://doi.org/10.1016/S2352-3018(21)00155-7 • A Check for updates



- 69 health services high caseload GBM clinics in NSW & Victoria:
- Final sample of >100,000 gay/bi-sexual men
- At baseline (first visit of the study period):
 - 90,304 were HIV-negative
 - 11,564 were HIV-positive
- 1,201 HIV incident cases over >300,000 PY

Population-level treatment-as-prevention, Melbourne and Sydney, 2010-2019

THE LANCET HIV

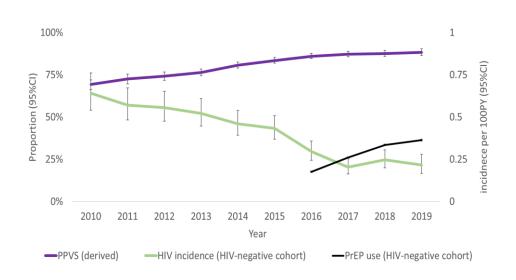
ARTICLES | ONLINE FIRST

HIV treatment-as-prevention and its effect on incidence of HIV among cisgender gay, bisexual, and other men who have sex with men in Australia: a 10-year longitudinal cohort study

Denton Callander, PhD A I o Hamish McManus, PhD Richard T Gray, PhD Andrew E Grulich, PhD David J Templeton, PhD Siaw-Teng Liaw, PhD James M McMahon, MD Jason Asselin, mEpi Kathy Petoumenos, PhD Margaret Hellard, PhD Alisa Pedrana, PhD Julian Elliott, MD Phillip Keen, PhD Jane Costello, MIS Richard Keane John Kaldor, PhD Mark Stoové, PhD Rebecca Guy, PhD Show less



- IRR=0.93, 95%CI: 0.93-0.96, p<0.001*
- A 1% in % of HIV+ GBM virally suppressed results in a 7% in new infections



Population-level treatment-as-prevention, Melbourne and Sydney, 2010-2019

THE LANCET HIV

ARTICLES | ONLINE FIRST

HIV treatment-as-prevention and its effect on incidence of HIV among cisgender gay, bisexual, and other men who have sex with men in Australia: a 10-year longitudinal cohort study

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Jane Costello, MIS • Richard Keane • John Kaldor, PhD • Mark Stoové, PhD * • Rebecca Guy, PhD * • Show less



Community is at the centre of collaborative and interdisciplinary care

Community partnered with research, clinical, and government stakeholders to inform and lead 'test and treat' and treatment as prevention collaborative and multidisciplinary responses ...

and drove early access to PrEP.



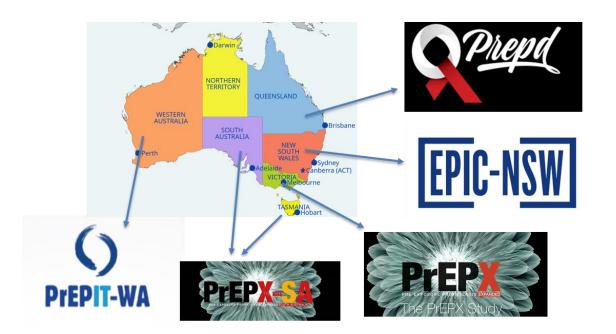




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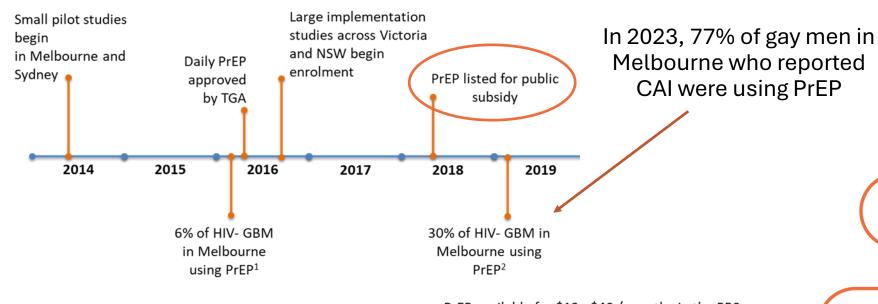




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and drove early access to PrEP.





Changing HIV epidemiology & reaching those at greatest risk







Who we are v Our programmes v Conferences v Get involved v New

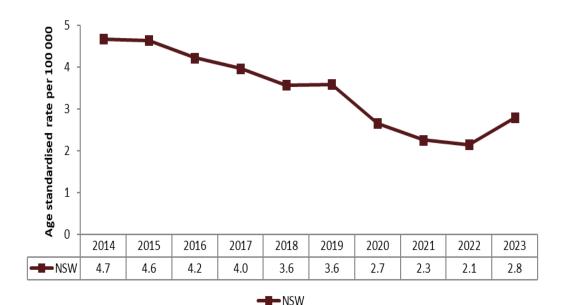
ENGLISH V

Home > HIV transmission virtually eliminated in Inner Sydney, Australia

HIV transmission virtually eliminated in Inner Sydney, Australia

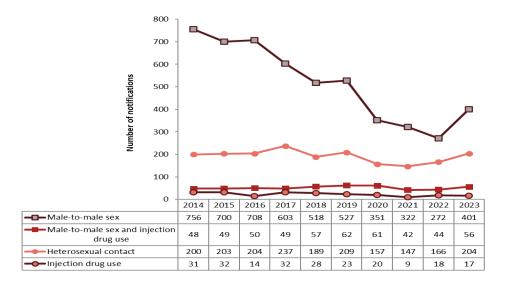
New evidence that Australia may become world's first nation to end HIV epidemic

Andrew Grulich of the Kirby Institute at the University of New South Wales and member of the Governing Council of IAS – the International AIDS Society – presented the findings, citing progress in Inner Sydney, where HIV was once most prevalent in Australia, as evidence that stopping new HIV acquisitions is possible. Grulich attributed success in Inner Sydney in part to community outreach and prevention efforts, including widespread availability and use of HIV pre-exposure prophylaxis (PrEP).



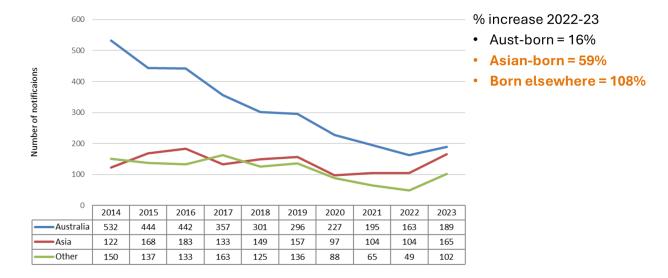


Overseas-born men who have sex with men



Structural challenges

- Short-term visa holders Medicare ineligible
- Limits access PrEP
- Limits access to testing services

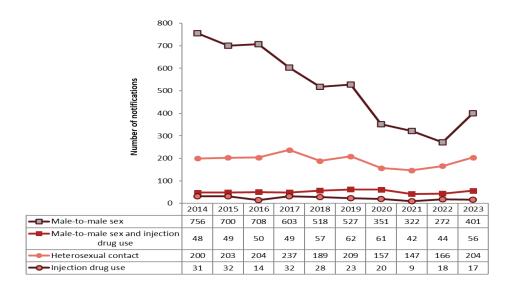


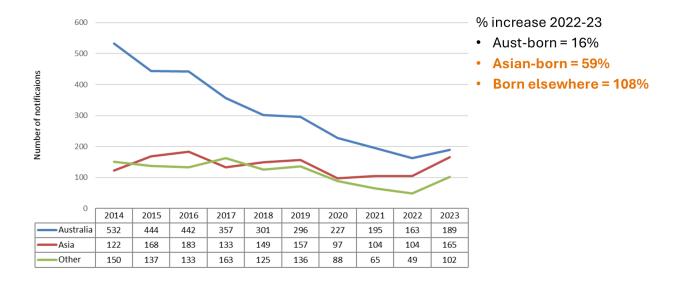
Socio-ecological challenges

- Stigma
- Poor knowledge/awareness
- Anxiety regarding implication of a diagnosis
- Clustering of undiagnosed HIV prevalence
- Post-COVID migration surge



Australian-born men who have sex with men





Structural challenges

- COVID impact lost people to regular testing
- Geographical dispersion leading to less access to specialist high caseload testing services

Socio-ecological challenges

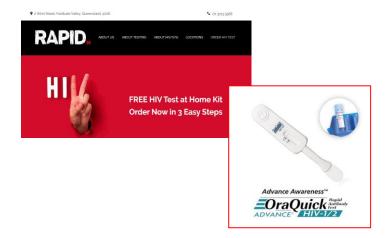
- Risk perception and risk compensation
- Intermittent/event-based PrEP
- Ceasing PrEP use





OraQuick Pilot - 2016 - 18

- Online mail out with pre and post test engagement
- Target MSM and people living in rural and remote areas
- Number of tests = 927



Key findings:

- Acceptable to at-risk and suboptimal testers
- Acceptable to naïve testers
- 95% chose no pre-test engagement

Int. J. Environ. Res. Public Health 2021, 18(21), 11252; https://doi.org/10.3390/ijerph182111252

Online HIV Self-Testing (HIVST) Dissemination by an Australian Community Peer HIV Organisation: A Scalable Way to Increase Access to Testing, Particularly for Suboptimal Testers

by ② Sara Fiona Elisabeth Bell ¹ □ ③ Jime Lemoire ² □ ③ Joseph Debattista ³ □ . ② Andrew M. Redmond ^{2,4} □ . ② Glen Driver ² □ ③ Triel Durkin ² □ ③ Luke Coffey ² □ ② Melissa Warner ² □ ③ Chris Howard ² □ . ② Ovain David Williams ¹ □ . ② Charles F. Gitts ¹ □ and ② Judin An Dean ft ¹ □ .



Integrated HIV self-testing (HIVST) service delivery in Queensland for policy and service development: study protocol

Sara Fiona Elisabeth Bell, Judith Ann Dean, Jime Lemoire, Joseph Debattista, Glen Driver, Charles F. Gilks, Andrew Redmond & Owain David Williams



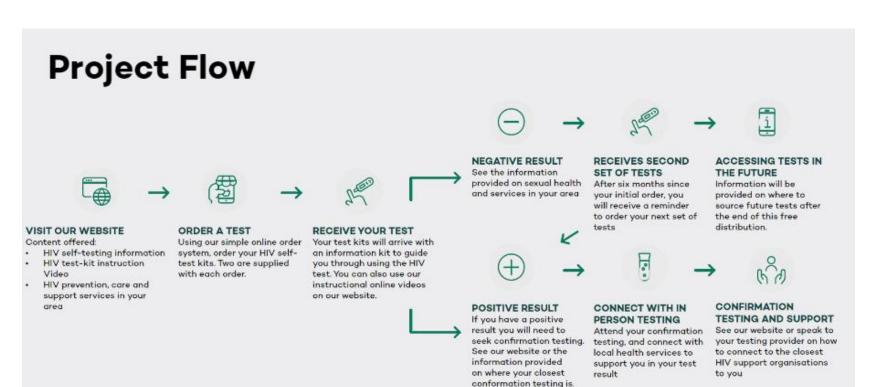




- Launched in 2023
- Allows individuals to order one year's worth of HIV self-testing kits online (four test kits).
- It's free
- Aims to increase access, awareness, and confidence in HIV self-testing.
- Initially funded by Gilead for a 12month period February/March 2022





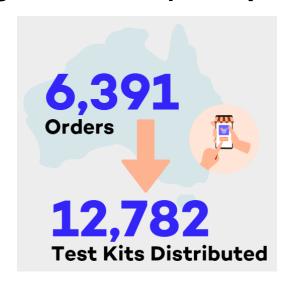


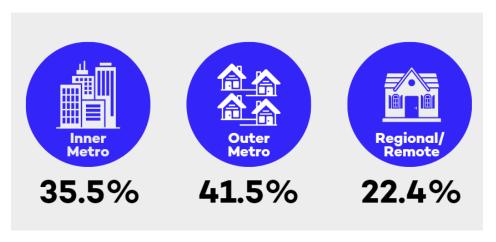
Tailored ordering experience:

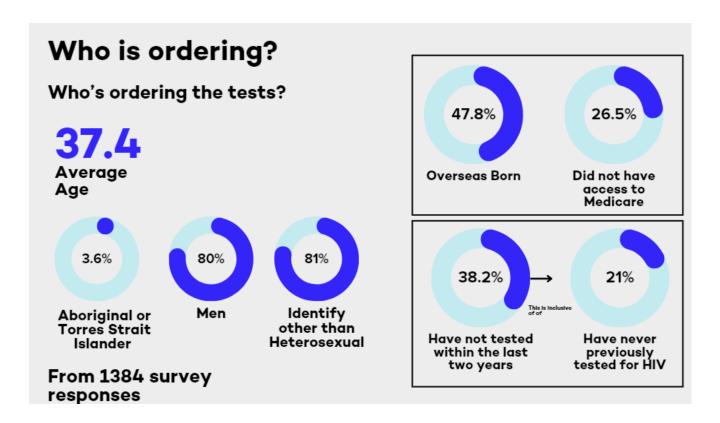
- Gay, Bi+, Queer or other MSM
- Asian Communities
- Latino Communities
- Women
- Aboriginal and Torres Strait Islanders



Progress so far (to Sept 2024)















Vending machine access to free HIV self-test kits:

- Scan a QR code on promotional materials or vending machines
- Takes people to a webpage:
 - provide information about age, place of birth, sexuality, and testing history.
- Can then access a kit by scanning QR code on the vending machine







Targeted spaces and communities:

- Gay/bisexual & other MSM
- People from non-English speaking backgrounds & international students.
- 5 machines university campuses and community venues around Adelaide.
- Webpage, campaign materials, and follow-up survey translated in:
 - Arabic
 - Hindi
 - Indonesian

- Malay
- Mandarin
- Spanish
- Vietnamese









Outcomes:

- 2905 people registered to use
- Dispensed 3844 kits
- 64% never previously tested for HIV
 - 74% for uni vending machine users
 - 36% gay sauna users
- 55% overseas-born
- 86% said they would likely use again
- 5 reactive results all triaged into care and support pathways

New strategy and new funding







- \$26 million subsidise PrEP for people without access to Medicare
- \$3.8 million national HIV self-testing vending machine implementation
- \$2.5 million expand national HIV self-test mail out
- \$1.6 million HIV workforce education and training pilot
- \$1 million establish a national HIV multicultural peer navigation program































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- Anna Wilkinson
- Jason Asselin
- Margaret Hellard

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- Rebecca Guy
- Basil Donovan
- Allie Carter
- Denton Callander
- Andrew Grulich
- Ben Bavinton



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