Reflections on Indigenous Research and Program Visions

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Overview of today

- Acknowledgements Traditional owners
- Many, many collaborators
- New to Queensland and to University of Queensland
- ATSI Sexual Health is a priority equity issue
- Recent research outcomes
- Role of research in improving outcomes in Sexual Health and reflections on this and what’s current

New to Queensland and to the University of Queensland

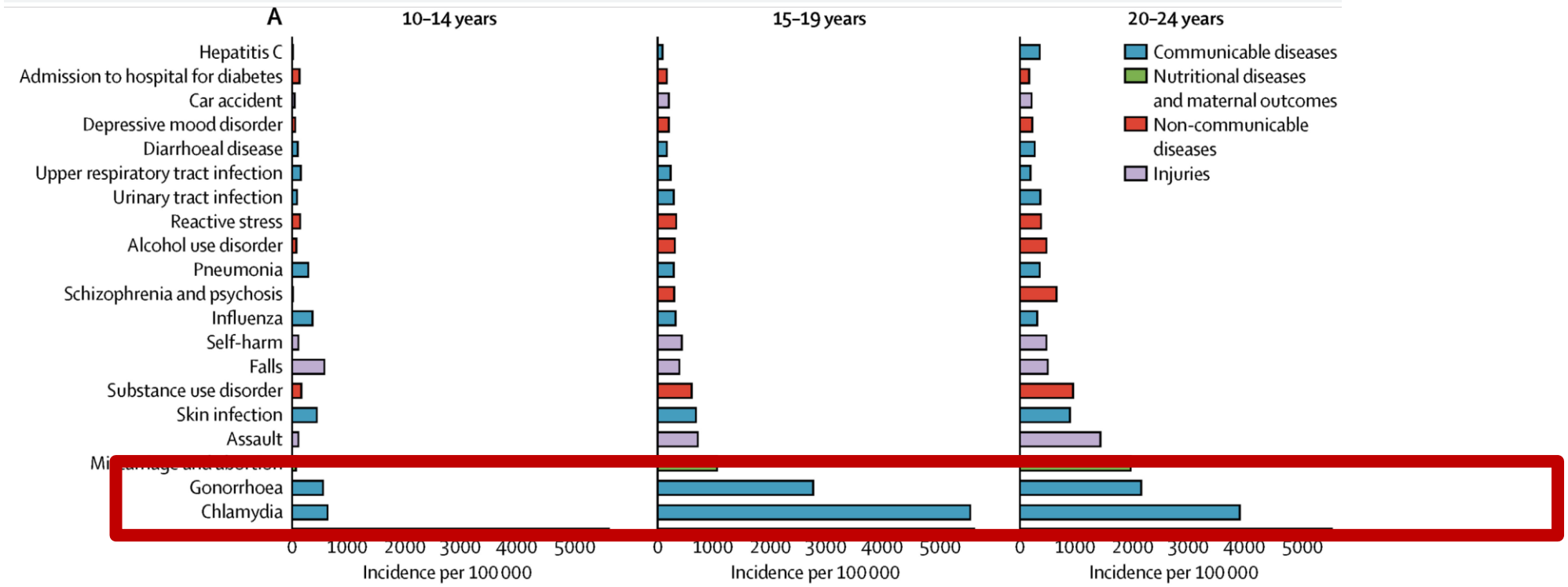
- Director of the UQ Poche Centre (urban Indigenous health focus)
  - Major stakeholders Institute for Urban Indigenous Health, Inala Centre of Excellence and Inala Wangara
  - Strategy – research, training of researchers in urban indigenous health, teaching, community engagement
- Professor in the UQ School of Public Health (everything else Public Health related of which my STI and BBV work sits)
- Both positions have pivotal roles in setting excellence in relation to research teaching and learning

Aboriginal and Torres Strait Islander Sexual Health is a priority issue

- 3% of population but significant proportion of STI diagnosis nationally
- Recognised in national jurisdictional and regional strategies/plans
- National Aboriginal and Torres Strait Islander STI and BBV Strategy
- Jurisdictional and regional strategies,
- But not the
- 1st Close the Gap or the renewed CTG National Agreement that focuses on closing LE gap and improving early childhood outcomes
- National Aboriginal Health Plan omits sexual health

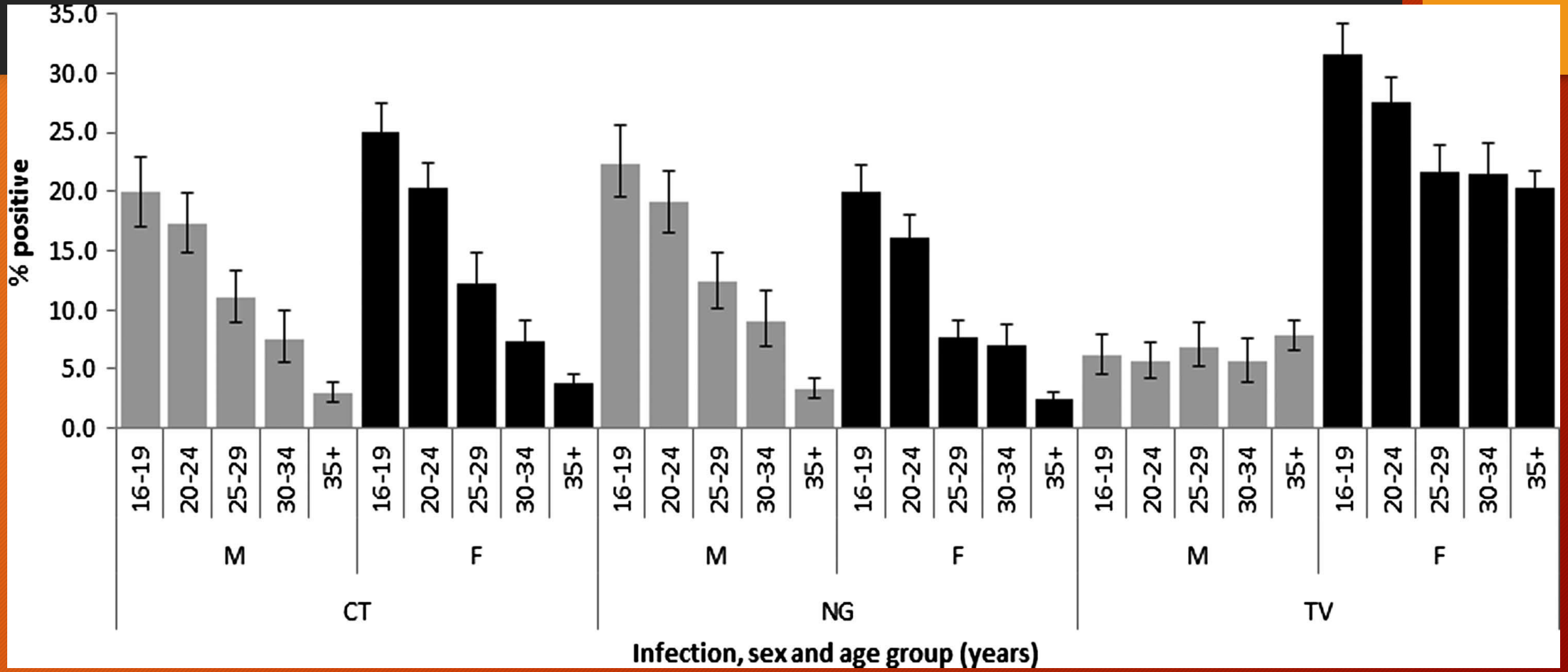
Health and wellbeing of Indigenous adolescents in Australia: a systematic synthesis of population data

Peter S Azzopardi, Susan M Sawyer, John B Carlin, Louisa Degenhardt, Ngiare Brown, Alex D Brown*, George C Patton*



Azzopardi et al The Lancet, 2017

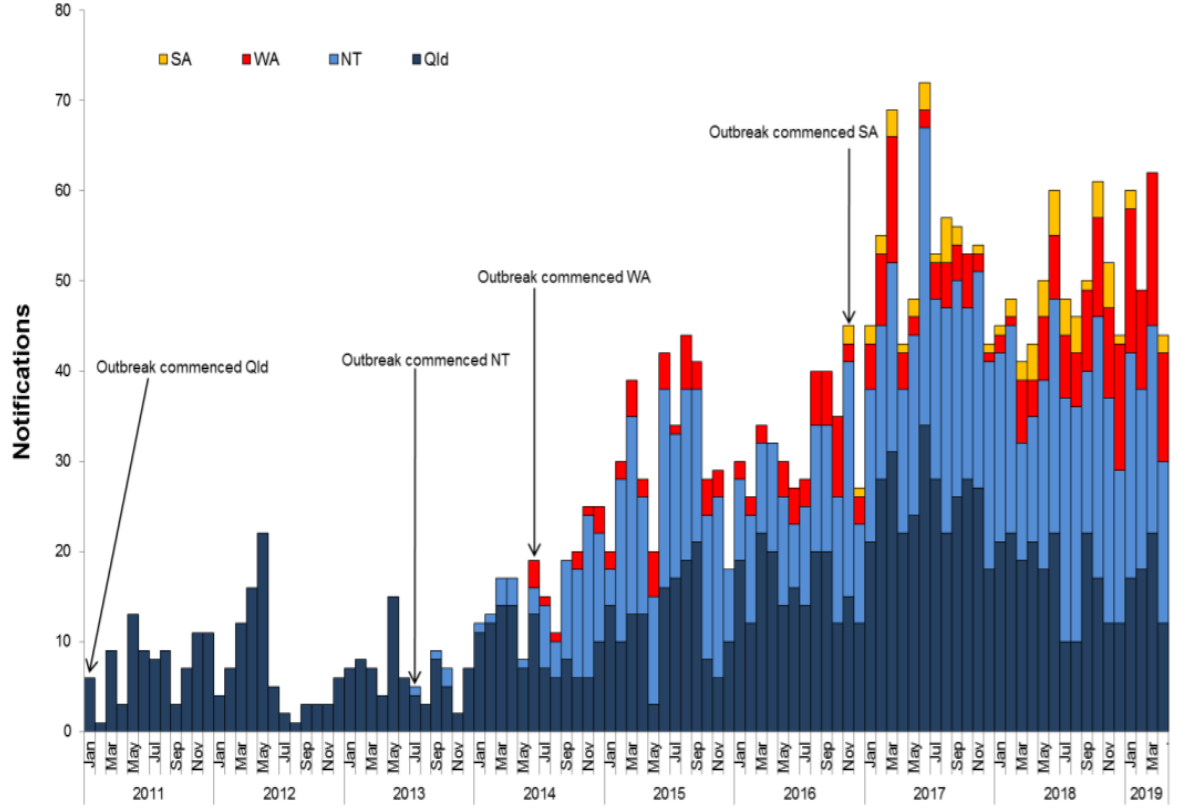
STIs and their burden among young people

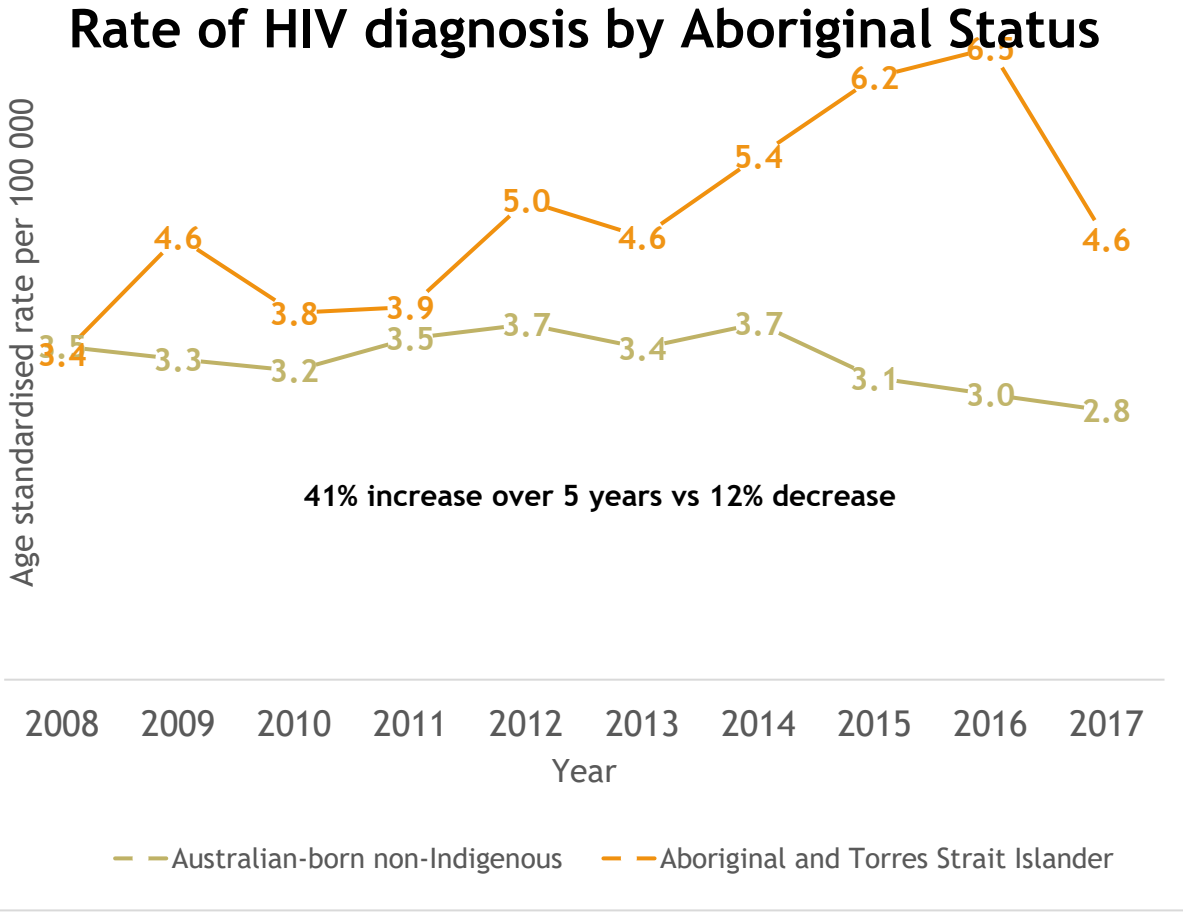


Guy et al STI 2015

Two issues – that require transformative change

Figure 1. Epidemic curve showing category 1 infectious syphilis[α] outbreak cases notified in Aboriginal and Torres Strait Islander people residing in affected regions[β] of Queensland, the Northern Territory, Western Australia and South Australia from commencement of the outbreak in each jurisdiction to 30 April 2019[γ]





> 2k cases; 41 cases CS; 7 CS deaths

STIs are more than a health issue

- Health equity - Disparate rates of STIs and sustained prevalence rates Novel approaches are required that can reduce burden of STIs in communities, preventing adolescent pregnancies, promoting birth spacing, sexual health, reproductive health and personal planning and development
- Societal equity - will be achieved by improving the contribution and value of Aboriginal and Torres Strait Islander people in health care when remote communities have equivalent risk to other areas when blame is not only placed on young peoples behaviour
- Human rights issue - when we couch STI issues in a human rights framework- poor outcomes in pregnancy, infertility

Recent research outcomes

THE LANCET
Global Health

Log

ARTICLES | VOLUME 7, ISSUE 11, E1553-E1563, NOVEMBER 01, 2019

PDF [256 KB] Figures Save

Strategies to improve control of sexually transmissible infections in remote Australian Aboriginal communities: a stepped-wedge, cluster-randomised trial

James Ward, PhD • Prof Rebecca J Guy, PhD • Alice R Rumbold, PhD • Skye McGregor, PhD • Handan Wand, PhD • Hamish McManus, PhD • et al. Show all authors • Show footnotes

Open Access • Published: November, 2019 • DOI: https://doi.org/10.1016/S2214-109X(19)30411-5

We detected no difference in the relative prevalence of STIs between intervention and control clusters (adjusted relative risk [RR] 0·97, 95% CI 0·84–1·12; p=0·66). However, testing coverage was substantially higher in intervention clusters (22%) than in control clusters (16%; RR 1·38; 95% CI 1·15–1·65; p=0·0006).

THE LANCET
Infectious Diseases

Log in

ARTICLES | VOLUME 18, ISSUE 10, P1117-1126, OCTOBER 01, 2018

Purchase

Molecular point-of-care testing for chlamydia and gonorrhoea in Indigenous Australians attending remote primary health services (TTANGO): a cluster-randomised, controlled, crossover trial

Prof Rebecca J Guy, PhD • James Ward, PhD • Louise M Causer, MBBS • Lisa Natoli, PhD • Steven G Badman, MPH • Annie Tangey, MPH • et al. Show all authors

Published: October, 2018 • DOI: https://doi.org/10.1016/S1473-3099(18)30429-8

Check for updates

- Primary outcome was the proportion of people (aged 16–29 years) found to have a *CT or NG +ve* result at retesting (3/52-3/12) after treatment,
- Secondary outcome was treatment within 7 days
- 455 individuals tested positive for *C trachomatis* or *N gonorrhoeae* infection in the intervention group, and 405 tested positive in the standard care group.
- In the intervention group, 12 (19%) of 63 individuals retested had a positive test result, compared with nine (13%) of 67 with positive retests in the standard care group (relative ratio [RR] 1·42, 95% CI 0·64–3·13; p=0·405),
- 347 (76%) were treated within 7 days in the intervention group, compared with 191 (47%) in the standard care group (RR 1·66, 1·41–1·93; p<0·0001).

Young people

BMC Public Health

BMC Public Health. 2020; 20: 459.
Published online 2020 Apr 6. doi: 10.1186/s12889-020-08565-0

PMCID: PMC7137447
PMID: 32252712

Young Aboriginal people's engagement with STI testing in the Northern Territory, Australia

Stephen Bell,[1,2] Peter Aggleton,[2,3] James Ward,[4] Walbira Murray,[5] Bronwyn Silver,[5] Andrew Lockyer,[5] Tellisa Ferguson,[5] Christopher K. Fairley,[6,7] David Whiley,[8] Nathan Ryder,[1,9,10] Basil Donovan,[1] Rebecca Guy,[1] John Kaldor,[1] and Lisa Maher[1,11]

Findings of individual, social and health service level influences on willingness to undertake clinic-based STI testing.

Individual level barriers –

- Knowledge about STIs, attitudinal barriers against testing for STIs, and lack of skills to communicate about STIs with health service staff.

Social influences both promoted and inhibited STI testing.

- E.g. local social networks enabled intergenerational learning about sexual health and facilitated accompanied visits to health clinics for young women. Being seen at clinics was perceived to lead to stigmatisation among peers and fear of reputational damage due to STI-related rumours.

Health service provision both enhanced and inhibited STI testing.

- Outreach strategies by male health workers provided young Aboriginal men with opportunities to learn about sexual health, build trusting relationships with clinicians and gain access to clinics.
- Barriers included - the location and visibility of the clinic, appointment procedures, waiting rooms and waiting times.

Young Aboriginal people's sexual health risk reduction strategies: a qualitative study in remote Australia

Stephen Bell [A B M], James Ward [C D], Peter Aggleton [B E], Walbira Murray [F], Bronwyn Silver [F], Andre Lockyer [F], Tellisa Ferguson [F], Christopher K. Fairley [G H], David Whiley [I], Nathan Ryder [A J K], Basil Donovan [A], Rebecca Guy [A], John Kaldor [A] and Lisa Maher [A L]

+ Author Affiliations

Sexual Health - https://doi.org/10.1071/SH19204

Submitted: 18 November 2019 Accepted: 17 February 2020 Published online: 3 August 2020

- **Methods:** In-depth interviews with 35 young Aboriginal women and men aged 16-21 years in two remote Australian settings were conducted; inductive thematic analysis examining sexual health risk reduction practices was also conducted.

- **Results:** Participants reported individual and collective STI and pregnancy risk reduction strategies. Individual practices included accessing and carrying condoms; having a regular casual sexual partner; being in a long-term trusting relationship; using long-acting reversible contraception; having fewer sexual partners; abstaining from sex; accessing STI testing. More collective strategies included: refusing sex without a condom; accompanied health clinic visits with a trusted individual; encouraging friends to use condoms and go for STI testing; providing friends with condoms.

> Am J Trop Med Hyg. 2019 Oct;101(4):753-760. doi: 10.4269/ajtmh.19-0288.

Characteristics and Impact of Disseminated Gonococcal Infection in the "Top End" of Australia

Johanna M Birrell [1], Manoji Gunathilake [1], Sally Singleton [1], Shellee Williams [1], Vicki Krause [1]

Affiliations + expand

PMID: 31392956 PMCID: PMC6779203 (available on 2020-10-01) DOI: 10.4269/ajtmh.19-0288

- DGI between January 2010 and September 2018 at RDH.
- 106 cases of DGI were identified.
- 89% were Indigenous Australians.
- The incidence of proven and probable DGI in the Indigenous population was 27.1/100,000 vs 7.1/100,000 in the Top End population overall.
- The highest incidence was in the 15-19-year age-group.
- 13 cases (12.3%) occurred in patients younger than 15 years.
- High rates of comorbid alcohol misuse, diabetes, systemic lupus erythematosus, rheumatic fever, and complement deficiency were observed.
- 94 patients (88.7%) presented with purulent arthritis.
- DGI was estimated to cause at least 10.0% of non-penetrating septic arthritis in the Top End and 1,234 days of hospitalization during the study period.

Reflection on research in improving outcomes in Sexual Health

- Piece meal gathering information through health services research, population health studies and other biomedical studies.
- Single interventions (CQI, POCt, ACCEPt)
- Potency (what is required is more potency in the way we conceptualise our strategies and deliver them)
- Bring together all the individual study data together Synergy (interplay between social determinants of health and S&RH outcomes)
- Community involvement in studies
- Keep plodding away

What else needs to change?

- Social determinants of health – education, income, employment, housing
- Ongoing impact of colonisation – unresolved trauma, unfinished business - no truth & reconciliation commission - ignoring the Uluru Statement
- Relentless racism within society and within our systems
- Social and fiscal environments (gap between the haves and have nots)
- Health system reform - workforce specialised, regionalised and strategized +++numbers, address gender imbalance, high turnover, layout of clinics

So if we are to make a difference in this space we have to start addressing some of the bigger issues at play

- Addressing behaviours of clinicians (implicit - treat all the same; and explicit- cultural business, no training, worry about managing +ve results)
- Health and societal equity as well as framing this as a human rights agenda
- Reducing negative outcomes of STIs

What are we doing currently?

Health Services Research

- *ATLAS*- national surveillance network of ACCHS
- *SCALE-C* – elimination of HCV in 4 ACCHS

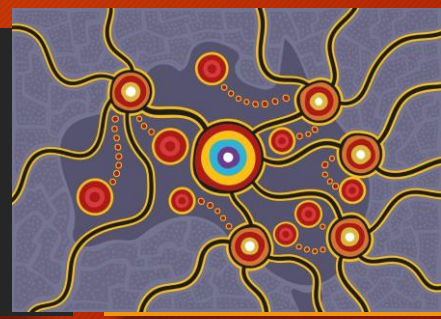
Population health

- *IMPACT-STI* Precision public health approach to reducing STIs
- *Synergy grant* - bringing together efforts to reduce STIs
- *GOANNA 2* - young peoples cross sectional survey
-
- *Lets talk about it* – online survey trial
- NIMAC - methamphetamines

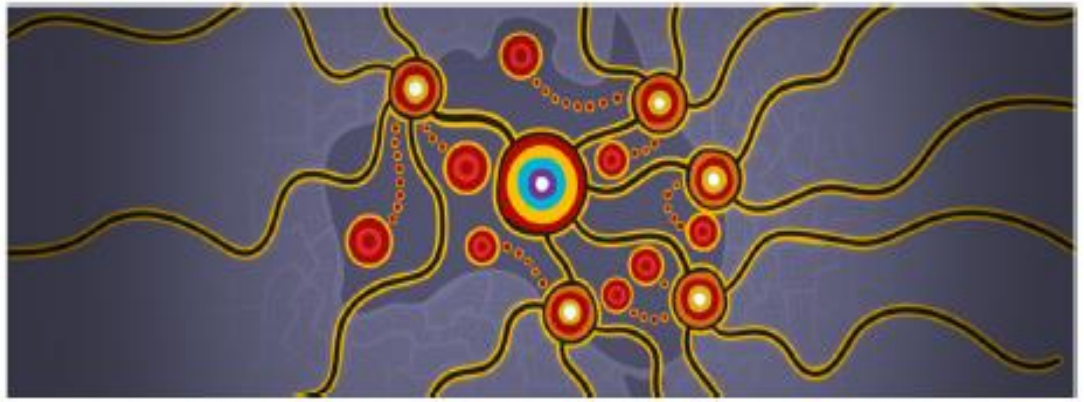
Biomedical approaches

- *Men B vaccine impact on NG all NT adolescents aged 15-19*
- *HIV phylogenetic work in FNQ*

ATLAS – health services research



- Working with Aboriginal Health Services
- Focus is clinical activity -attendance, testing, retesting, treatment outcomes for all STI/BBVs
- 13 key performance measures to assist continuous quality improvement efforts
- Provides evidence to guide policy, clinical guidelines and program delivery



Centre of Research Excellence in Aboriginal Sexual Health and Blood Borne Viruses

ATLAS STI & BBV Surveillance Report

Testing Health Service (Testing)

3-month period: 1 July 2019–30 September 2019

This report was prepared by SAHMRI, South Australia, as part of the ATLAS CRE-ASH program. For questions or queries please contact:

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Sasha Zhang, Data Analyst:	sasha.zhang@sahmri.com	Phone: (08) 8128 4354
Prof James Ward, Chief Investigator:	james.ward@uq.edu.au	Phone: 0439 605 227

3 PERFORMANCE MEASURES

The following Performance Measures are presented in this report:

1. **STI Testing Rate:** Proportion of clients tested for STIs (chlamydia, gonorrhoea, trichomonas, syphilis and HIV) during the reporting period
2. **STI Testing Coverage:** Proportion of clients tested for STIs at least once in a 12-month period
3. **STI Test Positivity:** Proportion of clients with at least one positive STI test in a 12-month period
4. **Completeness of STI Testing:** Proportion of positive chlamydia and/or gonorrhoea and/or trichomonas tests followed by testing for syphilis and HIV within 30 days of the date of initial specimen collection
5. **STI Treatment Interval:** Time (days) from date of positive STI (chlamydia, gonorrhoea, trichomonas) investigation request to date of treatment
6. **STI Retesting Rate:** Testing approximately three months (60 to 120 days) following treatment for an initial positive STI (chlamydia/gonorrhoea/trichomonas) result
7. **STI Repeat Positivity Rate:** Positive retesting for chlamydia/gonorrhoea at approximately three months (60 to 120 days) following treatment for an initial positive chlamydia/gonorrhoea result

8. **Hepatitis B Virus Testing and Positivity Rate:** Proportion of clients receiving a hepatitis B virus test and among those testing negative, the proportion subsequently vaccinated.
9. **Hepatitis C Virus Testing and Positivity Rate:** Proportion of clients tested for the hepatitis C virus and among those testing positive, the proportion subsequently tested for RNA or viral load.
10. **Hepatitis C Virus Treatment Uptake:** Proportion of clients prescribed Direct Acting Antiviral (DAA) treatment
11. **Hepatitis C Virus Sustained Virological Response (SVR):** Proportion of clients who, after having been prescribed Direct Acting Antiviral (DAA) treatment, achieve an undetectable viral load
12. **Human Papillomavirus (HPV) Screening Rate:** Proportion of female clients screened for human papillomavirus (HPV) in line with national guidelines

Five Clinical Hubs and >40 Aboriginal health services

- Apunipima Cape York Health Council: Cairns and Cape York
- Institute for Urban Indigenous Health: Brisbane metropolitan area
- Aboriginal Health Council of South Australia: South Australia
- Aboriginal Health & Medical Research Council of New South Wales: NSW
- Kimberley Aboriginal Medical Service: East and west Kimberley
- Other ACCHS sites

So is elimination of STIs possible?- IMPACT – STI

- **New Ideas grant funded by NHMRC**
- The Precision Public Health (PPH) approach is an emerging field that aims to address public health issues for specific populations; rather than traditional public health that focuses on whole populations.
- Interventions in PPH are informed by making use of new advances in technologies, such as genomics, informatics and data sciences to precisely understand the extent of a public health issue.
- PPH is most useful for populations or specific diseases where inequity and or inequality exists

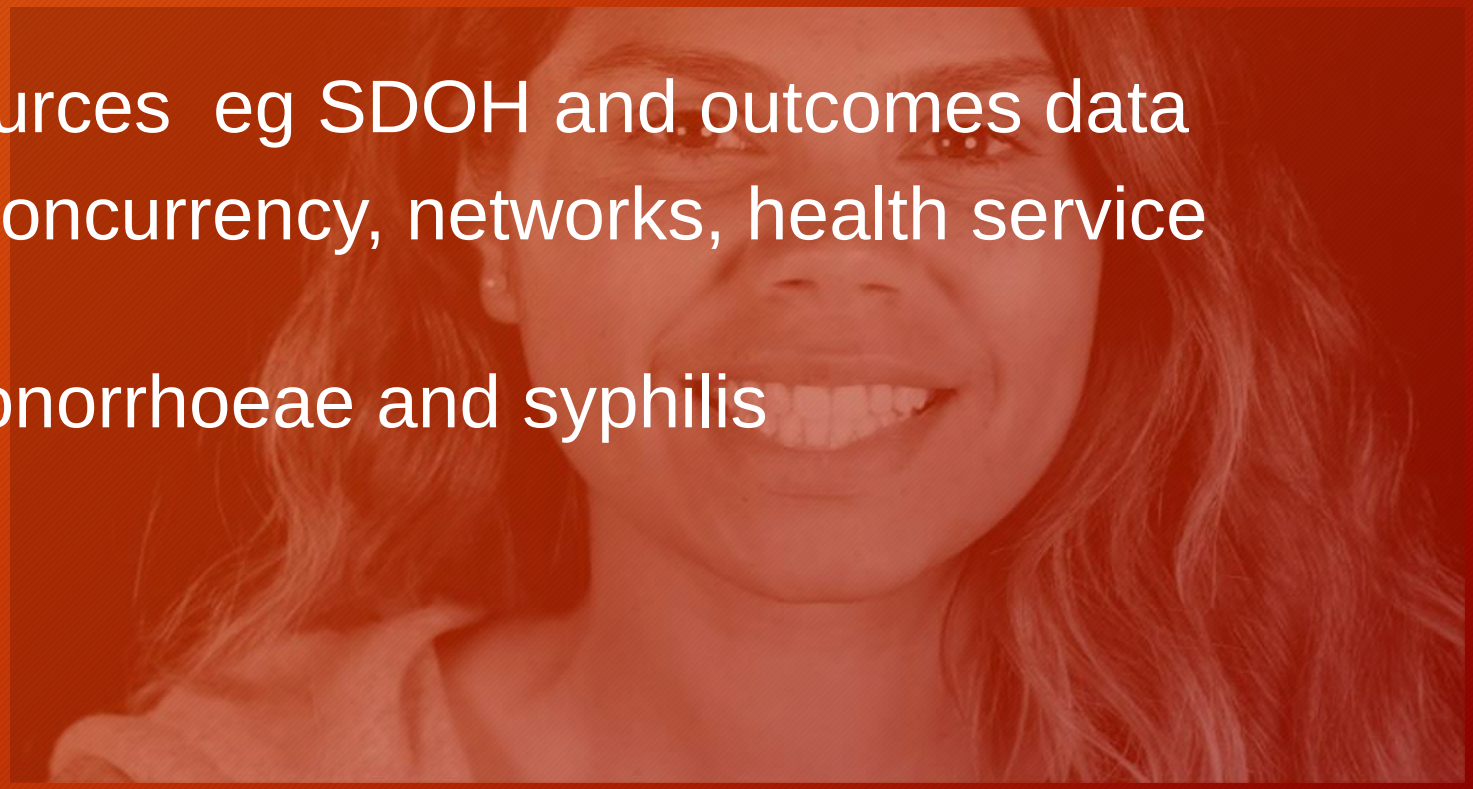
So is elimination of STIs possible?

- PPH - Data mapped to identify areas of greatest need in communities
- Requires access to granular data, genomics, qualitative data, health service access and STI management data - then work intensely there

IMPACT STI in CHHHS research to achieve elimination

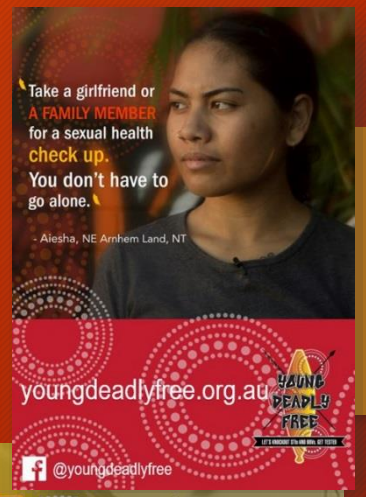
Research that brings together the following elements:

- Community coalition
- Data from PHC and other sources eg SDOH and outcomes data
- Behavioural data - mobility, concurrency, networks, health service engagement
- Pathogen genomics work- gonorrhoeae and syphilis
- Synthesise data
- Trials of interventions



One final thing our role as researchers is to ensure translation of our findings

Translation activities-Social Media



- www.atsihiv.org.au
- www.cre-ash.org.au
- www.nimac.org.au
- www.youndeadlyfree.org.au

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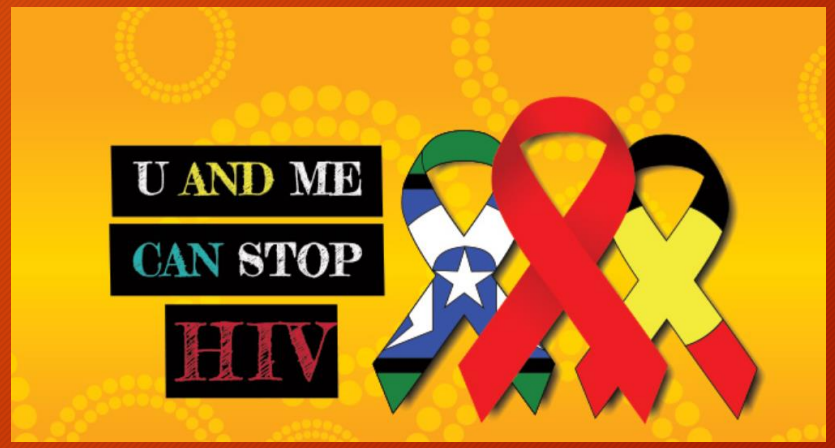
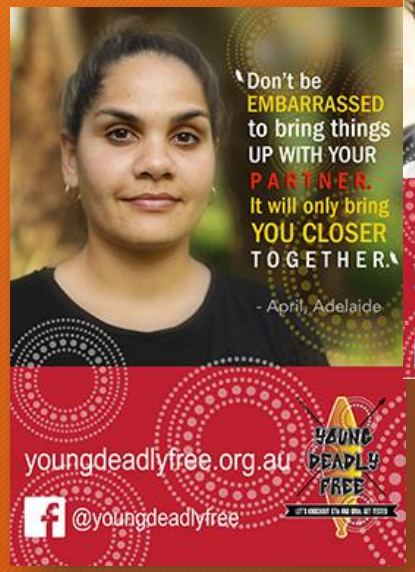
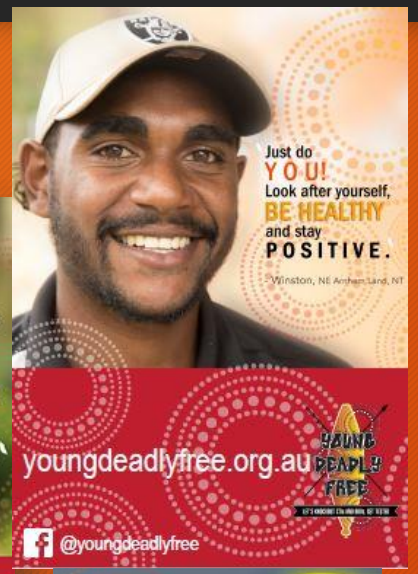
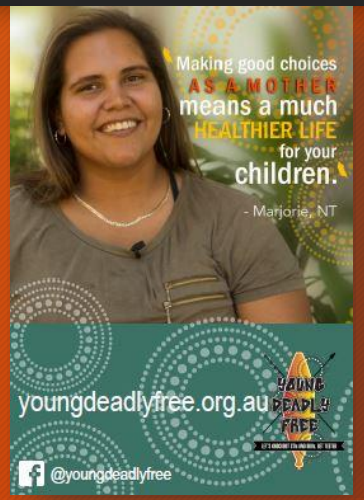


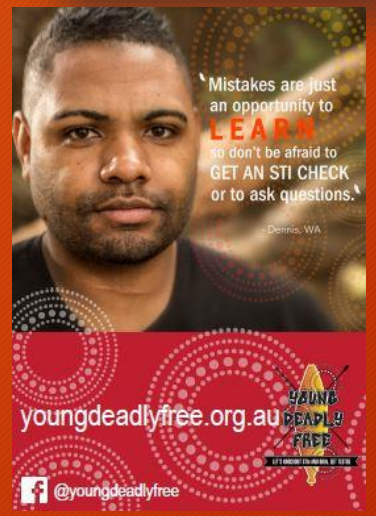
YouTube

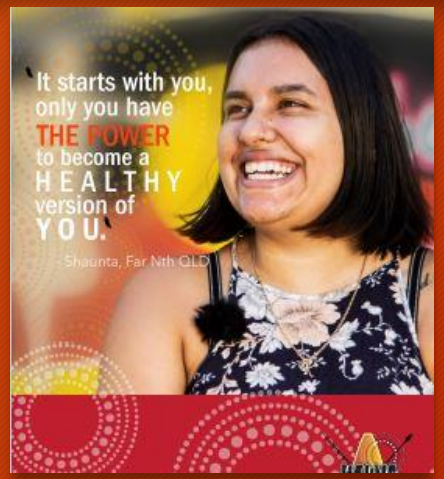
Young Deadly Free
www.youngdeadlyfree.org.au

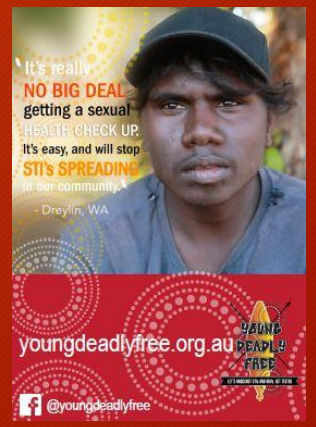


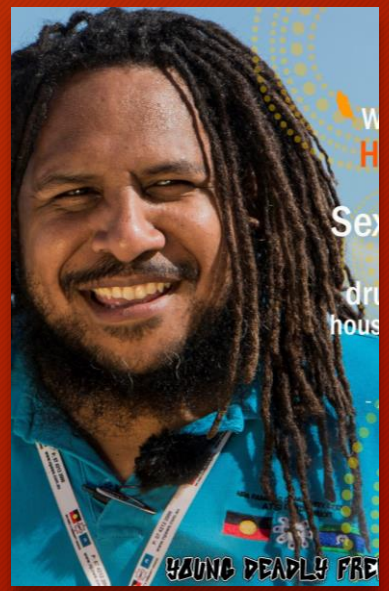












www.youngdeadlyfree.org.au

Young Deadly Free videos

In summary

- STIs are a wicked issue that prevalence has been hard to shift
- Research provides an important component to address long standing disadvantage
- Potency synergy and keep plodding away and we will win
- Centring communities will enable better research outcomes
- Reforms are required within communities to ensure research is as effective as it can and should be.