Improving sexual health and blood borne virus outcomes for young Aboriginal and Torres Strait Islander people
Overview

• Acknowledgements
• Introduction
• Burden of disease
• Testing Outcomes
• Where to from here
Who are we?

Our research aims to improve health outcomes for Aboriginal and Torres Strait Islander people in infectious diseases predominantly in the areas of STI and BBVs and associated risk factors by:

- Investigating strategies to control STI and BBVs in Aboriginal communities and health services
- Addressing policy and clinically relevant questions
- Translating these into policy and practice
- Building research capacity in Aboriginal health
- Predominantly health services research
Sexually transmitted infections

- Chlamydia, gonorrhoea trichomonas, infectious syphilis
- Mostly asymptomatic
- Affect predominantly people aged 15-29 years
- All are relatively easily tested and treated
- All can impact pregnancy
- All impact HIV transmission
- For non Indigenous people aged 15-29 years chlamydia is the predominant infection
- Limited success in reducing burden of infection particularly in remote areas
Burden of disease
Chlamydia notification rate, 2015, by Indigenous status and region of residence

Rates overall 3 times higher in 2015

6 times higher in remote areas

Source: National Notifiable Diseases Surveillance System; includes NT, Qld, SA, WA
Leading incident conditions
Indigenous 10 – 24 years

- Alcohol use disorder
- Reactive stress
- Schizophrenia and psychosis
- Pneumonia
- Self-harm
- Influenza
- Road traffic injury
- Falls
- Substance use disorder
- Skin infection
- Assault
- Gonorrhoea
- Chlamydia

Metric
incidence per 100,000
Gonorrhoea notification rate, 2015, by Indigenous status and region of residence

Rates overall 10 times higher in 2015

72 times higher in remote areas

Source: National Notifiable Diseases Surveillance System; includes ACT, NT, Qld, SA, Vic, WA, Tas
Infectious syphilis notification rate, 2015, by Indigenous status and region of residence

Rates overall 6 times higher in 2015

134 times higher in remote areas

Source: National Notifiable Diseases Surveillance System; includes all jurisdictions
STRIVE: Trichomonas prevalence in 16-34 year olds, 2010 (n=1828)

<table>
<thead>
<tr>
<th>Age group (years)</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-19</td>
<td>6.1%</td>
<td>25.8%</td>
</tr>
<tr>
<td>20-24</td>
<td>2.9%</td>
<td>15.6%</td>
</tr>
<tr>
<td>25-29</td>
<td>5.5%</td>
<td>15.0%</td>
</tr>
<tr>
<td>30-34</td>
<td>6.5%</td>
<td>16.1%</td>
</tr>
</tbody>
</table>
STI co-infections in remote Aboriginal communities: females and males

Guy et al STI 2014
Syphilis outbreak northern Australia by jurisdiction

- Western Australia
- Northern Territory
- Queensland

Notifications

Year and month

Bright CDI 2016
HIV and STIs

• Strong evidence that STIs promote HIV transmission

• The risk estimates found in numerous studies from four continents which range from 2.0 to 23.5, with most clustering between 2 and 5.
Number of HIV diagnoses since 1992 by 2 year periods among Aboriginal & Torres Strait Islander people.
HIV notification rate in the Australian-born population, 2006-2015

38 notifications in 2015

Source: State and Territory health authorities

Year

- Australian born non-Indigenous
- Aboriginal and Torres Strait Islander
HIV by exposure category

Aboriginal & Torres Strait Islander
- Men who have sex with men: 1%
- Men who have sex with men and injecting drug use: 8%
- Injecting drug use: 21%
- Heterosexual contact: 12%
- Mother-to-child: 8%
- Undetermined: 1%

76%

Australian born non-Indigenous
- 4%

76%
Hepatitis C notification rate, 2011-2015, by Aboriginal and Torres Strait Islander status

<table>
<thead>
<tr>
<th>Year</th>
<th>Non-Indigenous</th>
<th>Aboriginal and Torres Strait Islander</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>44.4</td>
<td>115.3</td>
</tr>
<tr>
<td>2012</td>
<td>42.0</td>
<td>128.5</td>
</tr>
<tr>
<td>2013</td>
<td>43.1</td>
<td>139.2</td>
</tr>
<tr>
<td>2014</td>
<td>39.5</td>
<td>158.0</td>
</tr>
<tr>
<td>2015</td>
<td>40.4</td>
<td>164.9</td>
</tr>
</tbody>
</table>
Hepatitis C notification rate, 2011-2015, by age group and Aboriginal and Torres Strait Islander status

**Aboriginal and Torres Strait Islander**

<table>
<thead>
<tr>
<th>Year</th>
<th>0-14</th>
<th>15-24</th>
<th>25-39</th>
<th>40+</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>0.0</td>
<td>155.5</td>
<td>258.4</td>
<td>107.3</td>
</tr>
<tr>
<td>2012</td>
<td>3.2</td>
<td>177.7</td>
<td>281.4</td>
<td>125.5</td>
</tr>
<tr>
<td>2013</td>
<td>1.6</td>
<td>197.2</td>
<td>273.7</td>
<td>152.9</td>
</tr>
<tr>
<td>2014</td>
<td>4.8</td>
<td>247.2</td>
<td>350.5</td>
<td>139.2</td>
</tr>
<tr>
<td>2015</td>
<td>3.2</td>
<td>247.2</td>
<td>350.5</td>
<td>148.4</td>
</tr>
</tbody>
</table>

**Non-Indigenous**

<table>
<thead>
<tr>
<th>Year</th>
<th>0-14</th>
<th>15-24</th>
<th>25-39</th>
<th>40+</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>0.4</td>
<td>33.5</td>
<td>82.4</td>
<td>48.1</td>
</tr>
<tr>
<td>2012</td>
<td>1.3</td>
<td>38.8</td>
<td>74.6</td>
<td>44.7</td>
</tr>
<tr>
<td>2013</td>
<td>0.2</td>
<td>40.2</td>
<td>76.2</td>
<td>46.5</td>
</tr>
<tr>
<td>2014</td>
<td>0.7</td>
<td>33.3</td>
<td>69.0</td>
<td>43.5</td>
</tr>
<tr>
<td>2015</td>
<td>0.5</td>
<td>30.4</td>
<td>68.5</td>
<td>46.2</td>
</tr>
</tbody>
</table>
STI Testing Outcomes
STRIVE – Cluster randomised trial to determine if a CQI program can have an impact on prevalence of STIs - 68 remote communities

Prevalence of chlamydia, gonorrhoea and trichomonas in 16-34 year olds

- Testing coverage
- Time to treatment
- 3 month testing for re-infection
- Contact tracing
Total STI testing by calendar year

<table>
<thead>
<tr>
<th>Year</th>
<th>Chlamydia</th>
<th>Gonorrhoea</th>
<th>Trichomonas</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>9,830</td>
<td>6,452</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>10,660</td>
<td>8,861</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>12,733</td>
<td>10,386</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>13,855</td>
<td>10,853</td>
<td></td>
</tr>
<tr>
<td>PREVALENCE</td>
<td>Yr1 vs Y2/3</td>
<td>95%CI</td>
<td>P-value</td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
<td>------------</td>
<td>---------</td>
</tr>
<tr>
<td>OVERALL</td>
<td>1.02</td>
<td>(0.84-1.24)</td>
<td>0.839</td>
</tr>
<tr>
<td>Chlamydia</td>
<td>1.10</td>
<td>(0.85-1.41)</td>
<td>0.469</td>
</tr>
<tr>
<td>Gono</td>
<td>0.97</td>
<td>(0.45-2.06)</td>
<td>0.933</td>
</tr>
<tr>
<td>Trich</td>
<td>0.89</td>
<td>(0.68-1.17)</td>
<td>0.411</td>
</tr>
<tr>
<td>FEMALES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>0.91</td>
<td>(0.77-1.09)</td>
<td>0.313</td>
</tr>
<tr>
<td>Chlamydia</td>
<td>1.07</td>
<td>(0.77-1.49)</td>
<td>0.694</td>
</tr>
<tr>
<td>Gono</td>
<td>0.87</td>
<td>(0.27-2.80)</td>
<td>0.812</td>
</tr>
<tr>
<td>Trich</td>
<td>0.84</td>
<td>(0.64-1.10)</td>
<td>0.204</td>
</tr>
<tr>
<td>MALES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chlamydia</td>
<td>1.16</td>
<td>(0.87-1.55)</td>
<td>0.317</td>
</tr>
<tr>
<td>Gono</td>
<td>1.06</td>
<td>(0.55-2.04)</td>
<td>0.852</td>
</tr>
<tr>
<td>Trich</td>
<td>1.10</td>
<td>(0.61-1.98)</td>
<td>0.758</td>
</tr>
</tbody>
</table>
Low HIV testing rates among people with a sexually transmissible infection diagnosis in remote Aboriginal communities

James S Ward¹, Amalie Dyda², Skye McGregor², Alice Rumbold³, Alice Rumbold⁴, Linda Garton⁵, Basil Donovan², John M Kaldor², Rebecca J Guy²
<table>
<thead>
<tr>
<th></th>
<th>Any + STI test</th>
<th>HIV testing within 30 days of any positive STI test (incl. same day)</th>
<th>HIV testing within 30 days of any positive STI test (excl. same day)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall</strong></td>
<td>15260</td>
<td>4,858 (32%)</td>
<td>854 (6%)</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>4190</td>
<td>2035 (49%)</td>
<td>208 (5%)</td>
</tr>
<tr>
<td>Female</td>
<td>11055</td>
<td>2815 (25%)</td>
<td>646 (6%)</td>
</tr>
</tbody>
</table>
Primary reason for consultations & chlamydia tests in females and males, 2011 n=523/249

General medical includes: Ear, nose & throat, respiratory tract infection, skin, immunisation, breast lump, hypothyroid, dizziness, migraine, referral.
Reproductive health includes: pregnancy testing, contraception

Graham et al. SHC Darwin
ACCESS: Chlamydia testing rate by service type, 2009

Ward 2012  ANZJPH
Lessons from overseas
What are we currently doing?

- NHMRC Centre of Research Excellence:
  - health service research in STIs and BBVs,
  - Implement interventions in STIs and BBVs
  - 3 themes of research (surveillance & monitoring, CQI/audits/ biomedical interventions)
  - Establishment phase 2016
CRE- ATLAS Project

- Through a clinical network comprising 50 Aboriginal primary health care services
- Collate clinical and patient demographic and behavioural data
- CQI and Audits
- Other surveillance work (HPV, BV, MG)
- seek innovative ways to translate the research and build a new generation of researchers to work in this field
NIMAC has been developed in response to deep community concern about the increasing use of ice in Aboriginal communities.
Methods – gathering data

**PHASE 1/2**
Cross-sectional survey:

- 80 recent meth users (past 12mo.) in each community
- Age 16+
- Used meth at least twice last year
- n=720 collected on electronic tablets

**PHASE 1/2**
Focus groups with 3 different groups

(i) Aboriginal community members affected by and/or concerned about MA use in their community;

(ii) Service providers and other stakeholders

(iii) MA users.
Methods – community and clinical interventions

**PHASE 3**
‘Communities that Care’

- Form a community coalition.
- Collate data on risk and protective factors.
- Community and research team partner to implement evidence-based programs and strategies to address top 5 action areas.
- Evaluation

**PHASE 4**
Trial of a web-based tool for use in PHC

Development of a web-based therapeutic intervention (WBTI)
- CBT and MI techniques.
- A wait-list control, randomised trial design
Remote Aboriginal and Torres Strait Islander Communities-STI BBV Project

This project will deliver a co-ordinated sexual health program in remote Aboriginal communities aimed at increasing opportunistic testing for STIs and BBVs.

Involves

- Health promotion resource development
- Laboratory data centralised
- PMS data centralised
- Peer education projects 25 remote communities
Aboriginal and Torres Strait Islander HIV Awareness Week

3rd year - initiated after International Indigenous Peoples Conference on HIV/AIDS

Dates for 2016: 28th November - 2nd December 2016

National committee comprising Aboriginal Health Services representatives

U AND ME CAN STOP HIV
ATSIHAW Community Ambassadors
1. Inclusion in CTG agenda
2. Changes to MBS Item 715
3. Improve timeliness of notification data (HIV)
4. PIP/MBS Item for STI/BBV Check
5. Develop and implement nKPIS for STI control
6. HIV outbreak guidelines to be developed
Health Service level

1. Patient management system modifications

2. Complete STI testing within AHC

3. Retesting/ Full STI screening

4. Changes to clinical guidelines
Community level

1. Widespread and ongoing community education

2. Improved health literacy

3. Programs that build on existing community strengths
NACCHO, Affiliates and Member services

• Meeting on Friday

• Decide on strategy forward and policy papers on Syphilis elimination and HV prevention
Thank you

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Mob: 0439 605 227