National Prison Entrants’ Bloodborne Virus and Risk Behaviour Survey (NPEBBVS)

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Justice Health Research Program

Presentation

• Background to the NPEBBVS
• Selected findings from the NPEBBVS
• Recommendations/future directions
Prisoner facts and figures

- Australian full-time adult prisoner population ~30,000
- ~60,000 flow through prisons each year
- 126 prisons in Australia
- 25% Australian prisoners are Indigenous
- Indigenous imprisonment rate - 2,309 per 100,000 vs. 131 per 100,000
- 94% men, 6% women
- Average age 33 years
- $85,000 per year in NSW ($230 per day)

Background to the NPEBBVS

- Prisoners excluded from all national surveys (including surveys of drug use e.g. IDRS, National Drug Household Survey, ANSPS)
- Extreme at risk population with poor health outcomes
- Ad hoc surveys valuable but systematic information important
- Attempt to collect systematic information from this population
- 2002 discussions with the National Centre in HIV Epidemiology and Clinical Research
- Decided to model the survey on the Australian Needle and Syringe Program Survey (ANSPS)
- One-off funding from NSW Health (for NSW component)
- Addressed states and territories and 4 agreed to participate
- Screen on reception to prison
National Prison Entrants Bloodborne Virus Survey (NPEBBVS)

- Triennial:
  - 2004 (NSW, WA, Tas, Qld)
  - 2007 (NSW, WA, Tas, Qld, Vic, ACT, SA)
  - 2010 (NSW, WA, Tas, Qld, Vic, ACT, SA, NT)
- Consecutive sample of prison entrants over a 2 week period
- 29 reception sites across Australia
- 'New' prison entrants (not transfers)
- Conducted as part of the prison reception process
- Survey completed by reception nurses
- Multiple ethics approvals required
- Informed consent required
- 76% of all receptions screened (2010)
- 76% response rate (86% for Indigenous; 69% women)
- Number screened at each reception prison ranges from 1 to 200+
- Funding model

Methodology

- Whole blood sample taken to test for the following BBVs & STI:
  - HIV antibody and antigen
  - Hepatitis C antibody
  - Hepatitis B core-antibody
  - Hepatitis B surface-antigen (e-antigen and e-antibody)
  - Hepatitis B surface-antibody
  - Treponema pallidum (syphilis) antibody (2010)
- Urine specimen taken to screen for (2010) :
  - Chlamydia trachomatis
  - Neisseria gonorrhoea
- Short risk behaviour survey (demographic, criminographic, drug use, tattooing, body piercing, sexual behaviour)
- Findings presented in terms of IDU & non-IDU
### Sample characteristics – 2010 NPEBBVS

<table>
<thead>
<tr>
<th></th>
<th>IDU (N=353)</th>
<th>Non-IDU (N=458)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>History of IDU</strong></td>
<td>44%</td>
<td>56%</td>
</tr>
<tr>
<td>Injected in past month</td>
<td>57%</td>
<td>-</td>
</tr>
<tr>
<td>Sex (% male)</td>
<td>88%</td>
<td>93%</td>
</tr>
<tr>
<td>Median age</td>
<td>31 years</td>
<td>28 years</td>
</tr>
<tr>
<td>% Indigenous</td>
<td>26%</td>
<td>36%</td>
</tr>
<tr>
<td>Highly accessible/accessible area (ARIA)</td>
<td>89%</td>
<td>72%</td>
</tr>
<tr>
<td>Australian born</td>
<td>89%</td>
<td>81%</td>
</tr>
<tr>
<td>1st homelessness*</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>First time in prison (% yes)</td>
<td>17%</td>
<td>41%</td>
</tr>
<tr>
<td>Participated in the community ANSPS</td>
<td>5%</td>
<td>-</td>
</tr>
</tbody>
</table>

* Sleeping rough, squat, long grass, car, boat.

### Sample characteristics - 2010 NPEBBVS

<table>
<thead>
<tr>
<th></th>
<th>IDU (N=353)</th>
<th>Non-IDU (N=458)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median (range) age of first IDU</td>
<td>18 years (7-43)</td>
<td>-</td>
</tr>
<tr>
<td>Median (range) duration of IDU</td>
<td>13 years (&lt;1-40)</td>
<td>-</td>
</tr>
<tr>
<td>Injected in past 4 weeks</td>
<td>57%</td>
<td>-</td>
</tr>
<tr>
<td>Most common drugs injected (past 4 weeks):</td>
<td>59%</td>
<td>-</td>
</tr>
<tr>
<td>Amphetamine</td>
<td>59%</td>
<td>-</td>
</tr>
<tr>
<td>Heroin</td>
<td>25%</td>
<td>-</td>
</tr>
<tr>
<td>Daily injections (%)</td>
<td>31%</td>
<td>-</td>
</tr>
<tr>
<td>Sterile needles used past month (All + Most injections)</td>
<td>90%</td>
<td>-</td>
</tr>
<tr>
<td>No drugs in past 4 weeks</td>
<td>19%</td>
<td>52%</td>
</tr>
<tr>
<td>Any drug treatment (% no)</td>
<td>44%</td>
<td>87%</td>
</tr>
<tr>
<td>Condom not used last casual sex with female (%)</td>
<td>53%</td>
<td>37%</td>
</tr>
<tr>
<td>Sex work in past month (% yes)</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Current smoker (%)</td>
<td>94%</td>
<td>86%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>New South Wales</th>
<th>Queensland</th>
<th>Tasmania</th>
<th>Western Australia</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>69%</td>
<td>82%</td>
<td>17%</td>
<td>56%</td>
<td>62%</td>
</tr>
<tr>
<td>2007</td>
<td>69%</td>
<td>93%</td>
<td>63%</td>
<td>66%</td>
<td>71%</td>
</tr>
<tr>
<td>2010</td>
<td>61%</td>
<td>96%</td>
<td>57%</td>
<td>66%</td>
<td>65%</td>
</tr>
</tbody>
</table>

Self-report hepatitis C negative but hepatitis C antibody positive

<table>
<thead>
<tr>
<th>Year</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>2007</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>2010</td>
<td>7</td>
<td>0</td>
</tr>
</tbody>
</table>

Australian prison entrants with no evidence of hepatitis B immunity - 2010
HBV immunisation

Inmates and staff of long-term correctional facilities:

Inmates are at risk of hepatitis B because of the prevalence of homosexual intercourse, injecting drug use and amateur tattooing in some correctional facilities. Therefore, they should be screened upon incarceration, and vaccinated if susceptible.

Australian Immunisation Handbook 9th Edition, S3.6, p159
Hepatitis C Treatment

- 2004 – 2 individuals reported receiving HCV treatment
- 2007 – 2 individuals reported receiving HCV treatment
- 2010 – 7 individuals reported receiving HCV treatment
- 2010 - 1 Indigenous prisoner reported receiving treatment
- HePATO project → mixed methods study examining why so few prisoners are treated for HCV
Sexually transmissible infections

- Chlamydia – 5% men 2% women
- Gonorrhoea – 1% men; 0 women
- 2% had markers indicating possible current infection; 1 had an RPR level indicating current infection
- Rates no higher than the community
- 62% of eligible women had not received cervical cancer vaccine

Utility of the NPEBBVS

- Keeps prisoners on the national agenda
- One of only 2 national prisoner health projects
- Linked to the National Prisoner Health Indicator Project (NPHIP)
- Collects bio-behavioural data on non-IDU entering prison
- Provides a platform for collaboration across the states
- Potentially provides a means of benchmarking the jurisdictions e.g. immunisation coverage and HCV treatment
- Potential to add questions of topical interest e.g. cervical cancer vaccination
- Uses whole blood sample (not blood spot testing)
- Test results provided to participants (including community follow-up)
Future directions?

- Retest on exit from prison - measure incidence
- Increase sample size for key groups (e.g. women) and jurisdictions with small populations (e.g. ACT & Tas)
- Include juvenile offenders
- Conduct biennially
- Secure funding
Acknowledgements

Prisoner participants

Reference group:

ACT: Professor Michael Levy (ACT Corrections Health)

NSW: Dr Devon Indig (Justice Health NSW)

NT: Kiah McGregor, Simon Stafford, and Robyn Hopkins (NT Correctional Services)

QLD: Dr Alun Richards and Stacy Kambouris (Queensland Health)

SA: Dr Peter Frost and Karen Harlin (SA Prison Health Service)

Tas: Dr Chris Wake and Deborah Siddall (Tas Correctional Primary Health Services)

WA: Holly Beasley (WA Corrective Services).

Interviewers:

ACT: Jenny Kuzek.

NSW: Phe Affleck, Nicole Ang, Karen Aquilina, Vicki Archer, Shalin Kumar, Helen Pearce, Meredith Picker, Jing Prideaux, Elaine Robinson and Aleta Stevenson.

NT: Jenny Grimes and Gary Lucas.

QLD: Hillary Barrett, Judy Galle, Lisa Imhoff, Stacy Kambouris, Janelle Kelly, Norma Lane, Shirley Petrie, Katherine Ransley, Jillian Rayfield and Sandra Wolfenden.

SA: Jo Andrews, Jackie Hughes, Robynne Lower, Joanne Peak, Jamie Reed, Sue Rex, Ronnie Richardson, Janice Scott, Catherine Whatson.

Tas: Matthew Chick.