About These Slide

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Australian & New Zealand Journal of Public Health

- Multidisciplinary journal on public health
  - Correlates & causes of disease
  - Health related behaviour
  - Analyses of public policy related to health
  - Social & cultural context of health & illness

- Bi-monthly

- Impact Factor 1.889
Mapping progress in chronic hepatitis B: geographic variation in prevalence, diagnosis, monitoring and treatment, 2013-15

MacLachlan et al, 2018 42(1), pp 62-68

**Background**

- Hep B is the most common liver infection in the world & 100x times more infectious than HIV
- Chronic Hep B may not cause symptoms until significant damage → cirrhosis, liver cancer, liver failure.
- Without access to appropriate health care, 1 in 4 adults infected in early life will die due to complications of CHB.
- CHB is concentrated in communities that experience inequalities in health care access: people born overseas, Aboriginal and Torres Strait Islander people, PWID, and MSM.
Mapping progress in chronic hepatitis B: geographic variation in prevalence, diagnosis, monitoring and treatment, 2013-15
MacLachlan et al, 2018 42 (1)

Objective
To measure progress towards Australia’s National Hep B Strategy 2014-17, and assess geographic variation in disease burden and access to care for those living with CHB

Methods
Data from routinely collected sources:
• MBS, PBS – CHB testing, monitoring, and treatment
• Australian Immunisation Register (AIR) – vaccination of infants

2nd National Hepatitis B Strategy 2014-2017 aims:
• Childhood Hep B vaccination coverage of 95%
• 80% of those with CHB diagnosed
• 15% with CHB receiving antiviral treatment

2012 estimates fell well short of these targets:
• 55% diagnosed
• 5% treated
Mapping progress in chronic hepatitis B: geographic variation in prevalence, diagnosis, monitoring and treatment, 2013-15
MacLachlan et al, 2018 42 (1)

Results

Prevalence:
National Average: 1.01%
Highest in NT: 1.77%
Lowest in TAS: 0.68%
NSW: 1.11%

<table>
<thead>
<tr>
<th>National estimates of cascade of care</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diagnosis of CHB</strong></td>
<td>61.0%</td>
<td>61.0%</td>
<td>62.0%</td>
<td>80.0%</td>
</tr>
<tr>
<td><strong>Treatment Uptake</strong></td>
<td>5.0%</td>
<td>5.8%</td>
<td>6.1%</td>
<td>15.0%</td>
</tr>
<tr>
<td><strong>Engagement in care</strong></td>
<td>13.5%</td>
<td>15.0%</td>
<td>15.3%</td>
<td></td>
</tr>
<tr>
<td><strong>Infant Immunisation</strong></td>
<td>90.7%</td>
<td>90.7%</td>
<td>92.3%</td>
<td>95.0%</td>
</tr>
</tbody>
</table>
Mapping progress in chronic hepatitis B: geographic variation in prevalence, diagnosis, monitoring and treatment, 2013-15
MacLachlan et al, 2018 42 (1)
Mapping progress in chronic hepatitis B: geographic variation in prevalence, diagnosis, monitoring and treatment, 2013-15
MacLachlan et al, 2018 42 (1)

Conclusion
• CHB burden remains high in Australia and geographically specific.
• Need to focus on areas with high CHB prevalence and low treatment and care.

Limitations
• PHN structure was not even across all states
• Routinely collected data subject to inconsistencies and inaccuracies
• “Guideline based care” defined as a single viral load test in a year
• Treatment and care data based on Medicare coding (doesn’t represent temporary residents and prisoners)
• Treatment data does not recognise cessation of treatment, only uptake.

Australian and New Zealand Journal of Public Health

Declining prevalence of undiagnosed HIV in Melbourne: results from community-based bio-behavioural studies of gay and bisexual men
Mark Stoove et al., 2018 42(1), pp 57-61
Declining prevalence of undiagnosed HIV in Melbourne: results from community-based bio-behavioural studies of gay and bisexual men
Stoove, M et al. 2018; 42(1)

Background:
In developed countries, undiagnosed HIV is the driver of onward transmission to gay and bisexual men (GBM).
Knowing HIV status enables seroadaptive behaviours shown to decrease transmission.

Objective
To measure changes in undiagnosed HIV among GBM between 2008 and 2014

Method
Direct measurement of GBM with undiagnosed HIV in community-recruited samples.
Declining prevalence of undiagnosed HIV in Melbourne: results from community-based bio-behavioural studies of gay and bisexual men  
Stoove, M et al. 2018; 42(1)

Methods
2008 Suck It & See (SIAS)

Inclusion criteria:
• >18yo
• MSM in past 5 years

Recruited from:
• Gay bars/clubs
• SOPV

Study consisted of:
• Behavioural & socio-demographic questionnaire adapted from GCPS
• Oral fluid HIV testing

→ Survey & results linked, but fully anonymous.
→ Anonymous = results not available to participants.

2014 COUNT Study – Melbourne arm

Inclusion criteria:
• >18yo
• MSM in past 5 years.

Recruited from:
• Annual gay community festival (Midsumma)
• Gay bars/clubs
• SOPV

Study consisted of:
• Comparable behavioural & socio-demographic questionnaire
• Oral fluid HIV testing

→ Survey & results linked, option to be anonymous or confidential.
→ Confidential option = results provided

Methods
Compared differences between 2008 & 2014, including:
• Serological prevalence of HIV
• Rates of self reported previous HIV dx
• Proportion of undiagnosed HIV

→ Also compared: socio-demographic characteristics, HIV testing history, and sexual risk behaviours

Comparison groups across two studies included:

2008 SIAS vs 2014 COUNT overall
vs 2014 COUNT gay sex & social venues only (not festival)
vs 2014 COUNT anonymous (no results)
vs 2014 COUNT confidential (results provided)
Declining prevalence of undiagnosed HIV in Melbourne: results from community-based bio-behavioural studies of gay and bisexual men  
Stoove, M et al. 2018; 42(1)

Results:

• HIV prevalence (same regardless of recruitment design):
  - 9.5% in SIAS 2008 vs 7.1% COUNT 2014

• Percent of positives that were previously undiagnosed (COUNT overall):
  - 31.1% in SIAS 2008 vs 7.1% in COUNT 2014

• Percent of positives that were previously undiagnosed (COUNT adjusted for recruitment consistent with SIAS design):
  - 31.1% SIAS 2008 vs 17.6% COUNT 2014 (S&S)

| Table 1: Characteristics of Suck It & See (2008) and COUNT (2014) participants. |
|-----------------------------|-----------------|-----------------|-----------------|-----------------|
|                             | SIAS Overall    | SIAS Sex & social venue-recruited* | COUNT Overall | COUNT Sex & social venue-recruited* |
|                             | N=439 | N=893 | N=238 | N=238 | N=215 |
| Semiological HIV Prevalence | 6/61(9.8) | 70/71(9.9) | 17/17(100) | 74/71(104) | 16/2(0.1) |
| Previously diagnosed HIV positive | 4/61(6.6) | 65/61(6.6) | 14/17(82) | 51/71(72) | 12/2(6.6) |
| Undiagnosed HIV positive | 2/61(3.4) | 5/61(8.2) | 3/17(18) | 1/71(1.5) | 4/2(20) |
| % of all positives (95% CI) | 11.8(4.9-26.4) | 11.2(3.7-25.7) | 17.4(10-30.7) | 1.9(0.0-5.5) | 25.0(15.7-46.1) |

* P=0.05, ** P=0.01, *** P=0.001

| Table 2: Characteristics of Suck It & See (2008) and overall and sex and social venue recruited COUNT participants (2014). |
|-----------------------------|-----------------|-----------------|-----------------|-----------------|
|                             | SIAS Overall    | SIAS Sex & social venue-recruited* | COUNT Overall | COUNT Sex & social venue-recruited* |
|                             | N=439(%) | N=893(%) | N=238(%) | N=215(%) |
| Median age (years) | 35 | 32 | 33 |
| Age <18 years | 105(23.8) | 401(45.6)** | 91(9.3)*** |
| Australian born | 453(71.7) | 710(73.9) | 169(71.5) |
| Education | | | | |
| Less than university | 294(41.6) | 45(4.5) | 137(48.2) |
| University Degree/Postgraduate | 126(15.5) | 542(61.6) | 123(50.8) |
| Currently employed | 512(88.3) | 785(77.7)** | 186(78.2) |
| HIV testing history | | | | |
| Ever tested for HIV | 475(77.6) | 859(98.4)***** | 196(83.3)***** |
| Ever tested for HIV in the past 12 months | 285(53.8) | 398(44.8) | 133(58.4) |
| In the past 6 months reported... | | | | |
| Sex with casual partners | 511(88.1) | 626(70.7)***** | 170(75.2) |
| Condondors sex with casual partners | 175(35.4) | 244(27.3) | 78(36.0) |
| A regular partner | 361(76.7) | 766(87.1)***** | 153(69.3) |
| > 10 sexual partners | 702(80.8) | 209(23.7)***** | 65(27.3) |
| Group sex | 259(55.9) | 301(34.8)***** | 81(36.5)***** |

* P=0.05, ** P=0.01, *** P=0.001

a. Denotes COUNT study design characteristics comparable with SIAS

b. Denotes participants with self-reported HIV infection or unknown/unknown status.
Declining prevalence of undiagnosed HIV in Melbourne: results from community-based bio-behavioural studies of gay and bisexual men  
Stoove, M et al. 2018; 42(1)

Authors conclude good evidence of declining undiagnosed HIV in Melbourne between 2008 - 2014…

- Likely due to increased HIV testing
  → 77% of SiAS 2008 participants and 88% of COUNT 2014 participants reported ever having had an HIV test.

Related to:
- Social marketing campaigns to support this change
- New point of care peer testing models in general practice
- Community based peer-led services

However…

- No declines in notifications of new HIV despite increases in testing & decreases in undiagnosed HIV
- With 94% of people diagnosed in Victoria on ART and 93% virally suppressed… are the 90-90-90 targets sufficient to end HIV?
- Further minimising time between tests is crucial for HIV prevention, but is it achievable?
The association between adolescent condom use and individual and environmental resilience protective factors

Rebecca Kate Hodder, et al 2018 42(1), pp 230-233
Objective:
to determine the associations between condom use and numerous individual and environmental protective factors in sexually active Australian adolescents.

Method:
• Online survey of 1688 year 10 students attending Australian govt high schools.
• Data: sexual intercourse in past year, condom use and 14 individual and environmental resilience protective factors.
• Multivariable backward stepwise logistic regression models examined association between student condom use and protective factors.

Conclusions
• Students with higher scores for some protective factors were more likely to always use condoms.
• Three of 14 protective factors associated with condom use:
  • ‘goals and aspirations’
  • ‘community participation’
  • ‘pro-social peers’

Strengths & Limitations
• Used a comprehensive and validated measure of resilience protective factors.
• Only one aspect of sexual risk taking evaluated and different types of sex not assessed
• Relied on self-report (but confidential and online method increased validity)
• Collinearity found between reliance and protective factors may have limited the number of resilience protective factors that remained prominent in the final mode.
• Sample only included govt schools from one region of Australia and may not be generalizable.
Background

- Breast cancer is the most common cancer among women worldwide and in Australia.
- Risk of developing breast cancer rises from migration from low risk countries in Asia to Western countries.
- Immigrant women have lower participation rates in the BreastScreen program than Australian-born women.
- Breast self-exam (BSE) or breast awareness (BA), clinical breast examination (CBE) and mammography are the primary means of early detection.
Method

• Secondary analysis based on data from five studies conducted between January 2009 and March 2015.

• Each study involved self-administered questionnaires in separate Australian-migrant populations:
  • African, Arabic, Korean, Indian, and Chinese.

• Convenience sample of 1791 women meeting selection criteria:
  • >18 yo, immigrated to Australia, from relevant CALD background, able to read, no hx of breast cancer.

• Breast Cancer Screening Beliefs Questionnaire (BCSBQ)
  • Culturally sensitive assessment of women’s breast cancer beliefs and attitudes toward screening.
  • Produced in relevant languages.
  • Demographic variables
    • age, length of stay in Australia, level of education, marital status, English proficiency
  • Knowledge of BA, CBE, mammographic screening and extent of participation in each.
Aust Prevalence and sociodemographic correlates of routine breast cancer screening practices among migrant-Australian women and New Zealand Journal of Public Health  Michelle Lam, et al., 2018 42 (1)

Results

• 19% of participants practicing Breast Awareness
• 27.4% attending Clinical Breast Examination
• 60.6% of the participants attended mammogram biannually

Table 3: Demographic factors associated with monthly breast awareness.

<table>
<thead>
<tr>
<th>Variable</th>
<th>No</th>
<th>Yes</th>
<th>OR (95% CI)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years) (n=1,719)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 40y</td>
<td>732</td>
<td>123</td>
<td>1.869 (1.484-2.346)</td>
<td>0.000</td>
</tr>
<tr>
<td>≥ 40y</td>
<td>605</td>
<td>200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of stay (years) (n=1,719)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 12y</td>
<td>766</td>
<td>123</td>
<td>2.066 (1.638-2.602)</td>
<td>0.000</td>
</tr>
<tr>
<td>&gt; 12y</td>
<td>623</td>
<td>200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital Status (n=1,719)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No partner</td>
<td>1081</td>
<td>73</td>
<td>1.346 (1.012-1.791)</td>
<td>0.041</td>
</tr>
<tr>
<td>Consistent partner</td>
<td>1904</td>
<td>219</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education (n=1,719)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary and below</td>
<td>465</td>
<td>110</td>
<td>1.000 (0.645-1.704)</td>
<td>0.163</td>
</tr>
<tr>
<td>Above secondary</td>
<td>904</td>
<td>222</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment Status (n=1,719)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>624</td>
<td>195</td>
<td>0.574 (0.449-0.736)</td>
<td>0.000</td>
</tr>
<tr>
<td>Employed</td>
<td>760</td>
<td>314</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English proficiency (n=1,719)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below average</td>
<td>325</td>
<td>84</td>
<td>1.000 (0.685-1.393)</td>
<td>0.473</td>
</tr>
<tr>
<td>Average or above</td>
<td>1062</td>
<td>248</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

OR = odds ratio; CI = confidence interval

* calculated using ROC curve
Aust Prevalence and sociodemographic correlates of routine breast cancer screening practices among migrant-Australian women and New Zealand Journal of Public Health  
Michelle Lam, et al., 2018 42 (1)

**Table 2: Demographic factors associated with participation in the 5-year mammogram as recommended for women within treatment age.**

<table>
<thead>
<tr>
<th>Variable</th>
<th>No.</th>
<th>Annual % (95% CI)</th>
<th>Yes.</th>
<th>BD (%) (95% CI)</th>
<th>Y:No</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 50*</td>
<td>193350</td>
<td>52.1 (51.3-52.9)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 50*</td>
<td>60308</td>
<td>69.4 (68.6-70.1)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of stay (years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 15</td>
<td>196642</td>
<td>50.8 (50.0-51.6)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 15</td>
<td>54230</td>
<td>71.3 (70.5-72.0)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No partner</td>
<td>594371</td>
<td>47.1 (46.4-47.8)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Partner</td>
<td>605336</td>
<td>64.1 (63.4-64.8)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary and below</td>
<td>199266</td>
<td>114.9 (113.1-116.7)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Above secondary</td>
<td>124945</td>
<td>1.8 (1.6-2.0)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>416832</td>
<td>74.5 (73.7-75.3)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>820433</td>
<td>65.5 (64.7-66.2)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English proficiency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below average</td>
<td>213285</td>
<td>80.7 (79.9-81.5)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average or above</td>
<td>169938</td>
<td>5.9 (5.6-6.1)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* a set of commuting zones

Illustration by Daisy de Villeneuve

---

**Conclusion**

- Sociodemographic variables are influential in participation in all treatment modalities.
- Further research to elucidate the effect of sociodemographic characteristics on screening behaviours.
- Breast cancer screening promotion should focus on subgroups of immigrant women who are younger than 50 years, newly arrived and unpartnered.

Illustration by Daisy de Villeneuve
Aust Prevalence and sociodemographic correlates of routine breast cancer screening practices among migrant-Australian women alien and New Zealand Journal of Public Health  Michelle Lam, et al., 2018 42 (1)

Breast Awareness Refresher!

• Everyone’s breasts look and feel different. You may have lumpy breasts, one breast larger than the other, breasts that are different shapes, or one or both nipples that are pulled in (inverted), which can be there from birth or happen when the breasts are developing.

• Become familiar with the normal look and feel of your breasts. There’s no right or wrong way to check your breasts for any changes. Try to get used to looking at and feeling your breasts regularly. You can do this in the bath or shower, when you use body lotion, or when you get dressed. Just decide what you are comfortable with and what suits you best.

• Remember to check all parts of your breast, your armpits and up to your collarbone.

• When you check your breasts, try to be aware of any changes that are different for you.

• Know what to look for: felt a lump,” is a common phrase for those who have had a breast cancer diagnosis, but there are many others warning signs to watch for:
  - a new lump in your breast or underarm (armpit)
  - thickening or swelling of part of your breast
  - irritation or dimpling of your breast skin
  - redness or flaky skin in your nipple area or your breast
  - pulling in of your nipple or pain in your nipple area
  - nipple discharge other than breast milk
  - any change in the size or the shape of your breast
  - pain in any area of your breast

• Most breast changes are not likely to be breast cancer. However, if you find a change in your breast that’s unusual for you, see your doctor without delay.

Touch Your Tits
https://vimeo.com/maeryan/touchyoutits