# Identifying key risk behaviours and correlates among a 'non-typical clientele' of the Needle and Syringe Program:

## A survey of 644 men who inject performance and image enhancing drugs

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# Background: *Increasing PIEDs prevalence*

- Four-fold increase in PIEDs related attendance NSW and QLD NSPs between 2010 to 2014 (Iversen et al. 2013)
- On average 15 years younger that other NSP groups (Iversen 2013)
- A large proportion of recent initiates to injecting drug use (55% in 2013, 38% in 2014 ANSPS)

# Background: *Are BBIs among PIEDs injectors related to factors other than their PIEDs use?*

- 5-10% HCV, 0-0.6% HIV (ANSPS 2008, 2013), 12% HBV (Aitken et al. 2002)
- Of 395 PIEDs injectors in England & Wales, 10% of those who *did not identify themselves as belonging to populations with high BBI prevalence* presented antibodies for HCV, HBV or HIV (Hope et al. 2013)
- In Australia, studies with people who use PIEDs have shown:
  - Low rates of equipment sharing (1% at KRC, 5% in Larance et al. 2008)
  - Risky injecting increased with length of time injecting PIEDs (Larance et al. 2008),
  - HCV prevalence increased with length of time injecting PIEDs (Iversen, 2013)

# Background: *Health service access*

- High proportions of people injecting PIEDs experience injection-related problems (42% in Hope et al. 2015, 56% in Larance et al. 2008)
- Less likely to tell health professionals about drug use than other NSP populations (Islam et al. 2013)
- Despite increasing NSP access, low rates of information seeking from NSP have been documented (Larance et al. 2008)
- NSP is currently a primary point of engagement with the healthcare system

# Gaps in evidence

- A more culturally diverse group of PWID?
- What is happening in suburban areas?
- Is BBI prevalence among people who inject PIEDs related to factors other than PIEDs use? Mixed findings so far…
- 10 year-old data on injecting practices prior to commencing this research
- Small samples in ANSPS and in other research
- Limited data on adverse effects *other than* BBIs

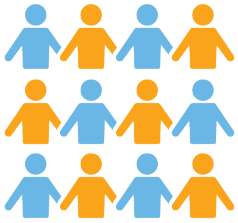
# Methods: PIEDs Peers

- Short, self-complete online and on-paper survey
- Men 18+, who inject PIEDs
- 9 Primary NSPs, across 5 Local Health Districts (LHD)

  In 2013, these NSPs were accessed by approx. 60-70% of men who last injected PIEDs and accessed a NSP in NSW

# Limitations

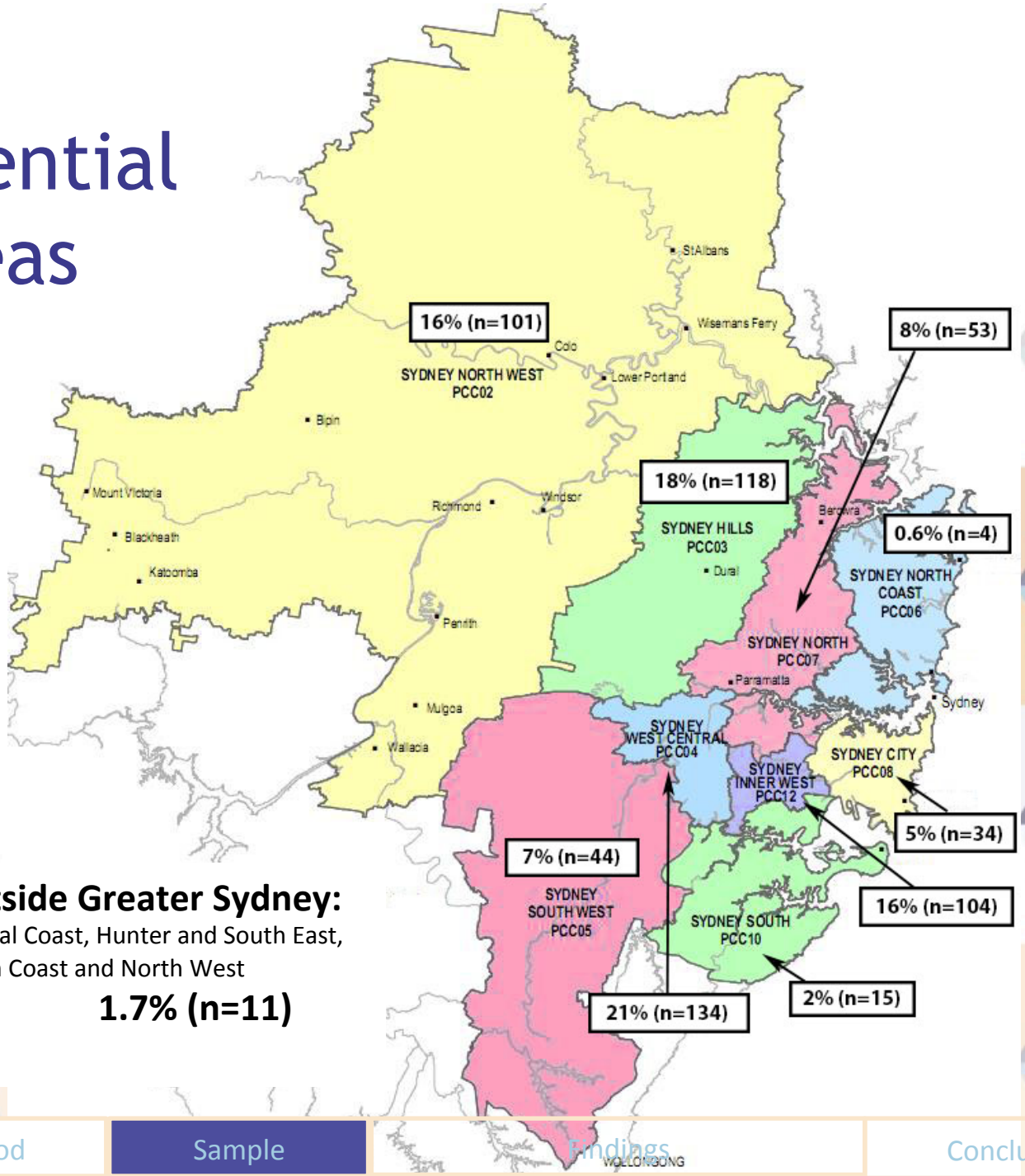
- Self-reported information, but high response rates
  (average 90% of participants responded to each question)
- Men who use PIEDs and don't access the NSP may significantly differ from men who access the NSP
- Future studies should use methods that can ethically include women who use PIEDs



# Study group

- 644 participants
- Median age 27 years (Range 18 to 58 y/o)
- 98% heterosexual
- 58% (n=375) identified with a CALD background
  - 23.4% speak languages other than English
  - 9.3% born overseas (excl. UK, USA, Canada, NZ, Sth Africa)
- 2% are Aboriginal and Torres Strait Islander men
- 8% had been in prison at least once
- 35% (n=213) lived in areas that were ranked lowest and second-lowest on the most recent Index of Relative Socio-Economic Advantage and Disadvantage (ABS 2011)
- 19% (n=114) lived in the two highest ranked SES areas

# Residential areas




**Outside Greater Sydney:**
Central Coast, Hunter and South East, South Coast and North West

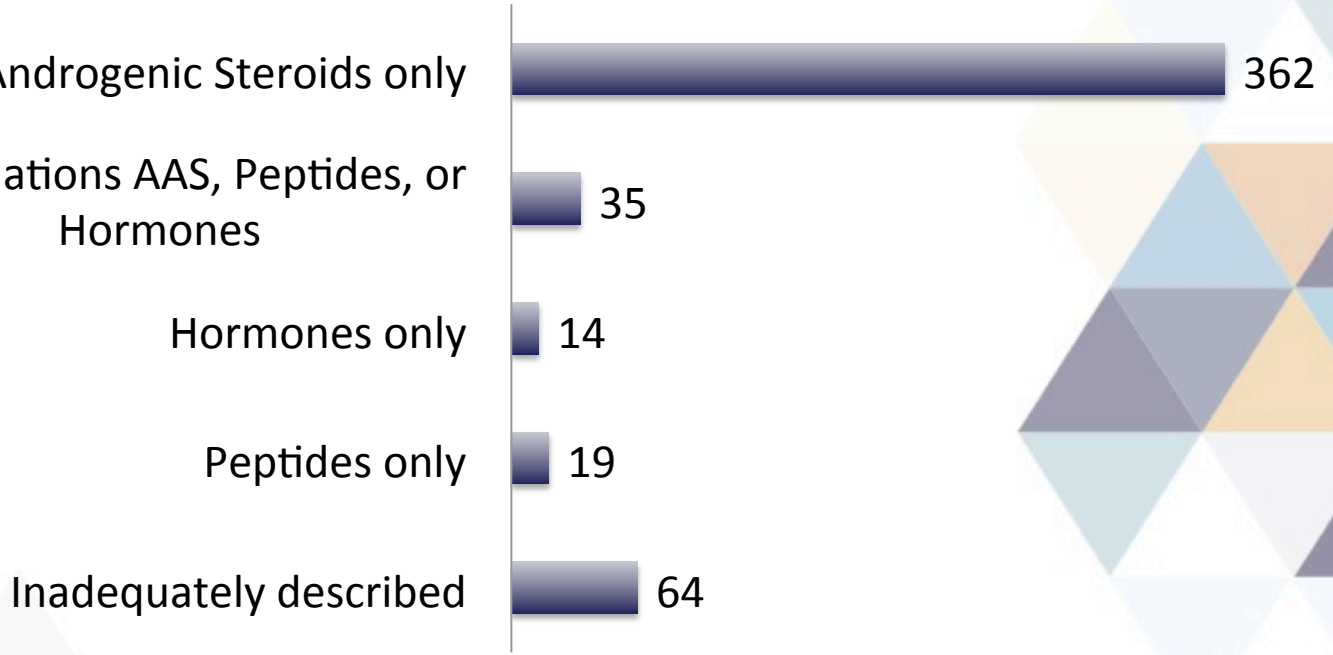
**1.7% (n=11)**

# PIEDs injecting histories

- 75% - injecting PIEDs for 3 years and under
- 2 years median time since first PIEDs injection
- 48% - injecting for 12 months and under

Proportionate representation of recent initiates to injecting PIEDs, *Orange = 10 recent initiates*

# What PIEDs do you typically inject?

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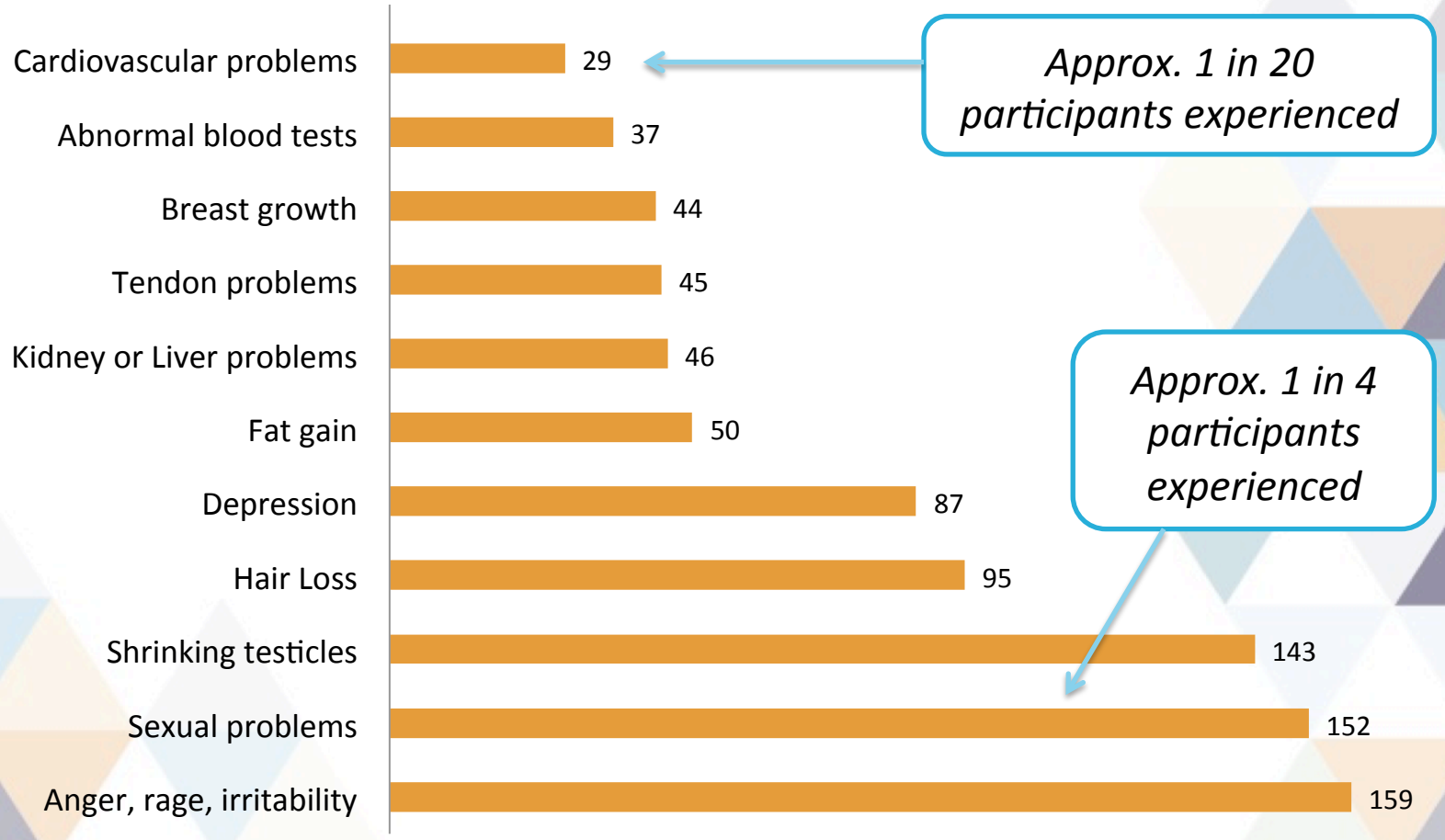
# Adverse health effects

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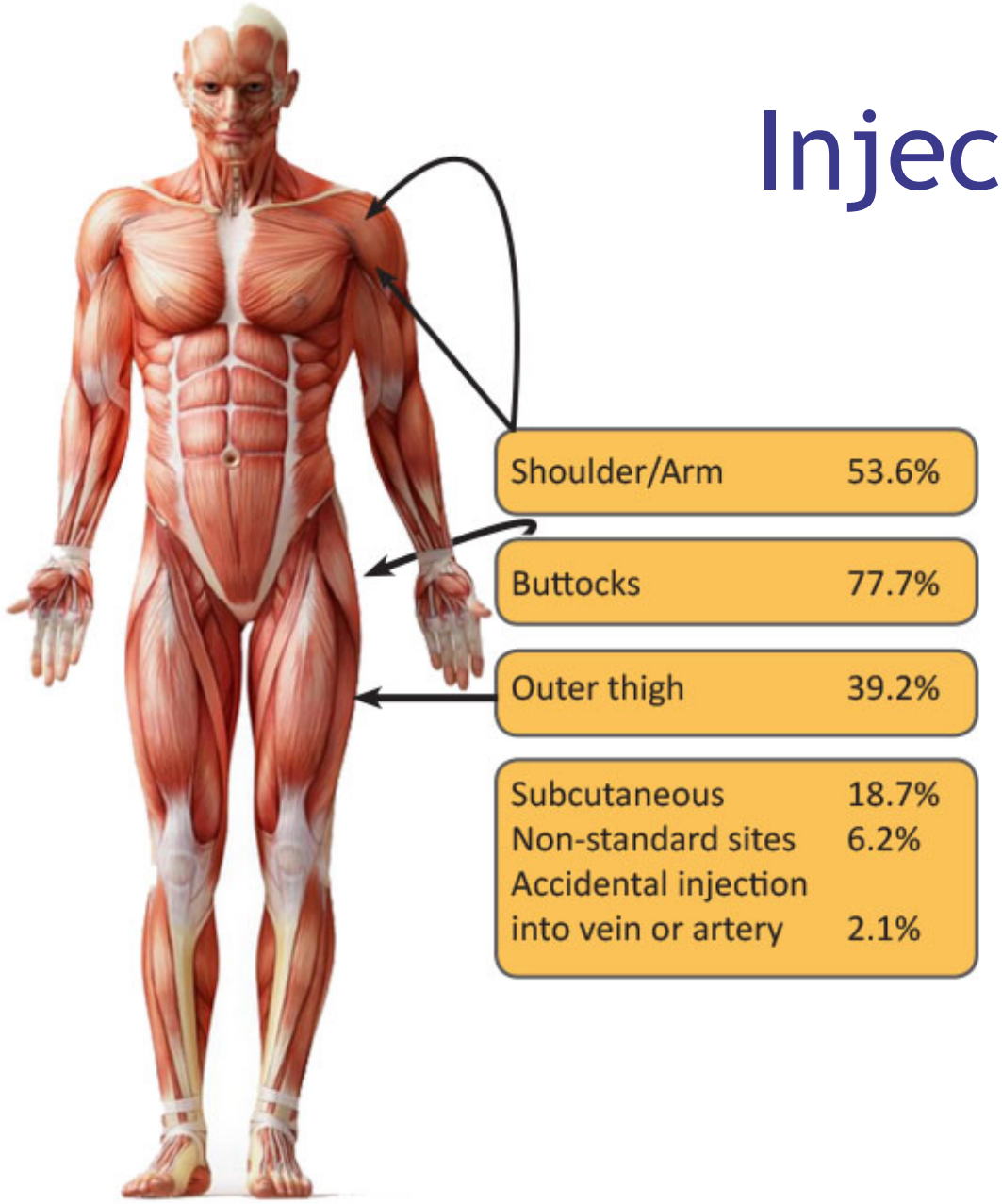
# Cycles length and breaks

- Taking longer breaks between cycles was associated with reduced reports of breast growth
  - <5 weeks break vs 5+ weeks (RR=3.98 95%CI 2.11 to 7.52)
  - <7 days break vs 2-4 weeks (RR=3.93 95%CI 1.62 to 9.51)

- Not taking regular breaks between cycles was associated with:
  - Self-reported sexual/genital problems (<4 weeks vs 13+ weeks, RR=2.54 95%CI 1.18 to 5.47)
  - High liver enzymes (<12 weeks vs 13+ weeks, RR=4.31 95%CI 1.66 to 11.18)
  - Depression (<12 weeks vs 13+ weeks, RR=1.58 95%CI 1.07 to 2.33)

# Injection sites




- Injecting smaller muscle groups is common, and increases risk of injury

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# Injection-related risks

| Injecting in previous 12 months | *n (%)* |
|---|---|
| Shared needle or syringe (with others) | 13 (2.1) |
| Shared a vial/bladder/container | 28 (4.6) |
| Had someone else's blood on you or your equipment | 14 (2.3) |
| Re-used needles (with self) | 31 (5.1) |
| Picked up or passed on new equipment to someone else | 66 (10.9) |
| Been injected by another person | 270 (44.3) |
| Seen blood on a surface | 104 (17.2) |
| Seen blood on a body part | 105 (17.4) |

# Correlates of injection-related risk

- As length of time injecting PIEDs increased so did risky injecting practices (rho=0.12, p=0.001)
- Men who were injected by someone else were more likely to have injected small muscle groups (e.g. calves, inner thighs) (RR=1.23 95% CI 1.07 to 1.42)
- Men who reported seeking advice from suppliers were more likely to inject small muscle groups (RR=2.48 95%CI 1.4 to 4.3)
- Men who had injected other types of drugs were more likely to report risky injecting, t(25.35)=2.79, p=0.01.

# PIEDs and other drug injecting

- 5% reported injecting drugs other than PIEDs during the 12 months prior to survey

**Risky Injecting Practices of PIEDS + other drug Injectors vs. PIEDs-only Injectors**

| | *RR* | *CI (p)* |
|---|---|---|
| Shared needles | 21.97 | 7.87 to 61.35 (<0.001) |
| Shared a vial, bladder, container | 6.82 | 3.14 to 14.81 (<0.001) |
| Someone's blood on you or your equipment | 14.72 | 5.46 to 39.63 (<0.001) |
| Re-used with self | 7.03 | 3.43 to 14.42 (<0.001) |
| Picked up equipment for others | 2.59 | 1.37 to 4.93 (0.004) |
| Been injected by another person | 1.38 | 1.02 to 1.88 (0.04) |
| Seen blood on a surface | 3.15 | 2.06 to 4.81 (<0.001) |
| Seen blood on a body part | 1.83 | 1.03 to 3.26 (0.04) |

- We noted that 6 of 13 respondents who shared needles did not report injecting other types of drugs or having sex with other men in previous 12 months - i.e. they didn't factor in other primary risk categories for BBI

# BBI screening

- 43% of participants reported never having been tested for Hepatitis B or C, or HIV, 11% were unsure
- Men who were older, or men who had been injecting PIEDs for longer, were not more likely to have been tested
- Men who had recently shared injecting equipment were less likely to have ever been tested (RR=2.13 95%CI 1.66 to 2.74)
- Men from CALD backgrounds were less likely to have ever been tested (RR=1.23 95%CI 1.01 to 1.51)

# Seeking advice on PIED injecting

## Who do you go to for advice?

| | |
|---|---|
| Mates | 44% |
| Internet | 39% |
| Doctors | 34% |
| NSP staff | 21% |
| Nurses | 16% |
| Personal trainers | 13% |
| Suppliers | 12% |

**Vs.**

## Whose info is most reliable?

| | |
|---|---|
| NSP staff | Most reliable (M=3.38, SD=0.89) |
| Nurses | Reliable (M=3.25, SD=0.99) |
| Doctors | Reliable (M=3.21, SD=1.04) |
| Internet | Unreliable M=2.70, SD=0.87) |
| Mates | Unreliable (M=2.51, SD=0.88) |
| Personal Trainers | Unreliable (M=2.47, SD=0.92) |
| Suppliers | Most unreliable (M=2.38, SD=0.92) |

# Hunches to follow

- 1 of 9 NSPs had a weekly clinic and 2 nurses on staff. Men who attended this NSP reported overall shorter cycle lengths as well as higher rates of access to nurses (32% vs. 15%, p = 0.004) and NSP staff (36% vs. 20% p = 0.01) for advice
- Long-term trajectories and health effects of PIEDs use. Approx. 50% of respondents foresaw themselves ceasing PIEDs injections in less that 10 cycles
- Barriers to screening need to be explored and addressed

# In summary…

- This study found that taking regular, longer breaks between AAS cycles was associated with reduced reports of some adverse health effects
- Relatively stables rates of equipment sharing compared with previous research
- Injecting PIEDs *and* other drugs with associated with higher injection-related BBI risk
- Half of the participants who had recently shared needles equipment did not feature in other high-risk categories for BBI (non-sig. but important to monitor)
- Lower rates of BBI screening among men who reported recent equipment sharing (risk)
- Cultural diversity similar to diversity of the general population (but much higher than we tend to see accessing AOD treatment)
- Lower rates of BBI screening among CALD men (access)

# Acknowledgements


- The 644 study participants!
- Needle and Syringe Program teams in SWSLHD, NBMLHD, SESLHD, SLHD and WSLHD
- Nepean Blue Mountains Local Health District HREC, and LHD Research Governance offices
- Study advisory Group – Jenny Iversen, Briony Larance, Kay Stanton, Sasha Kaplan, Julie Page, Felicity Sheaves
- HARP Managers across NSW, Gary Gahan in particular
- Network of Drug and Alcohol Agencies (NADA) and Mental Health Coordinating Council (MHCC) 2012 Research Seeding Grants