

Prevalence and incidence of chronic hepatitis C among indigenous people who inject drugs in Melbourne, Australia

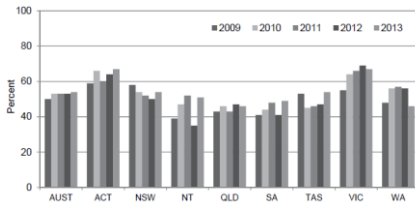
Nambiar, D., Stooevé, M., Higgs, P., Hellard, M., Doyle, J. & Dietze, P.

Overview

- HCV among people who injected drugs (PWID) and Aboriginal & Torres Strait Islander (ATSI) People
- Melbourne Injecting Cohort Study (MIX) study
 - Aims and methods
- Chronic HCV incidence and prevalence
 - Correlates of chronic HCV infection
- Implications

PWID & HCV

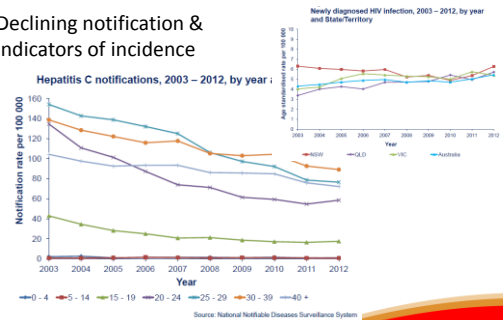
- Prevalence of HCV >50% in Australia (1999 – 2013)^{1,2}



¹Iversen et al. *Journal of Viral Hepatitis* 2013.
²ANSP 2009 - 2013

PWID & HCV

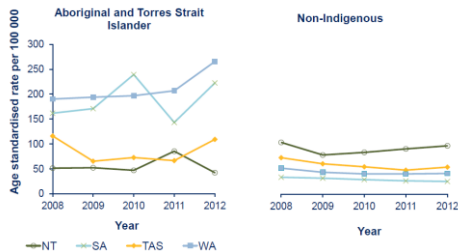
- Declining notification & indicators of incidence



2013 Annual Surveillance Report on HIV, viral hepatitis, STIs Kirby Institute

Mind the gap:

HCV notifications by ATSI status*



2013 Annual Surveillance Report on HIV, viral hepatitis, STIs Kirby Institute

*Jurisdictions where ATSI status reported in >50% of diagnoses in each year 2008 – 2012

Mind the gap:

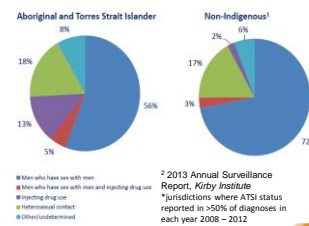
HIV attributed to IDU

Over-represented in¹: ¹ ANSP 2009 – 2013

- Surveys of PWID
- HCV diagnoses
- IDU-attributed HIV diagnoses²

- Not HCV or HIV prevalence among PWID

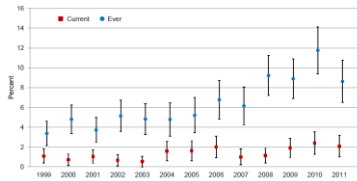
HIV diagnoses in Australia, 2008 – 2012, by HIV exposure category



¹ ANSP 2009 – 2013
² 2013 Annual Surveillance Report, Kirby Institute
*Jurisdictions where ATSI status reported in >50% of diagnoses in each year 2008 – 2012

PWID & HCV

- Low uptake of treatment ¹



- Structural barriers to Rx – low referral rate & discrimination²
- Aboriginal ethnicity associated with lower uptake of HCV assessment and treatment³

¹ Iversen et al. *Journal of Viral Hepatitis* 2013.
² Stoope et al. *Drug & Alcohol Dependence* 2005
³ Alavi et al 2013 *Clinical Infectious Diseases*

Epidemiology of HCV among PWID: compounded by ATSI?

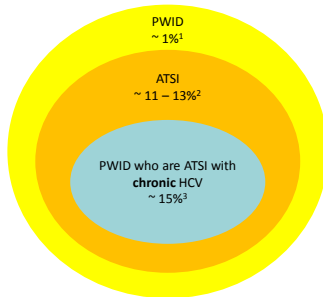
Numerous risk factors of HCV transmission:

- Longer duration of injecting
- Drug treatment
- Female gender
- History of incarceration
- Injecting frequency
- Frequent sharing of injecting equipment
- Public injecting

ATSI report higher prevalence of behavioural risk practices¹ and exposure to risk environments²

¹ Paquette et al *AIDS and Behavior* 2013
² Maher et al *Journal of Gastroenterology and Hepatology*, 2004

Compounded risk



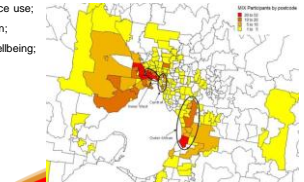
¹ Mathers 2008 *The Lancet*
² ANSP 2009 – 2013
³ Alavi et al 2013 *Clinical Infectious Diseases*

Melbourne Injecting Cohort Study

Aims: Risk of HCV among ATSI and non-ATSI identifying PWID

Population: Melbourne Injecting Drug Use Cohort Study (MIX)
 Prospective cohort study baseline recruited in 2008/09

- Outcomes:**
1. Prevalence & incidence of HCV infection
 2. Correlates of HCV prevalence - Generalised Estimating Equations:
 - Socio demographics;
 - Past & current substance use;
 - Health service utilisation;
 - Physical and mental wellbeing;
 - History of incarceration



Results : MIX baseline characteristics (N=507)

	ATSI (n=28)	Non ATSI (n=479)
Age (median)	28	29
Male	13 (46)	313 (65)
Employed	1 (4)	103 (21)
Injecting for a decade or more	16 (57)	303 (63)
Arrested (12 months)	18 (64)	254 (53)
Current OST	16 (57)	258 (53)

Results 1: Prevalence (2013) & Incidence (2009-13)

- Chronic HCV prevalence at last interview
- Chronic HCV incidence (PCR) 2008-2013

Outcome	Sample	ATSI	Non-ATSI
Prevalence (95% CI)	62%	53.6 (33.9 – 72.5)	62.2 (57.7 – 66.6)
Incidence per 100PY (95% CI)	8.9	7.7 (0.9 – 25.1)	9.4 (6.5 – 12.9)

Results 2 : Independent correlates of chronic HCV prevalence

N=507	Prevalence	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
ATSI status			
No	62%	1	1
Yes	54%	0.92 (0.77 – 1.10)	0.90 (0.75 – 1.08)
Injecting career			
<3 years	40%	1	1
3 - 9 years	55%	1.27 (1.14 – 1.42)	1.29 (1.15 – 1.44)
10 or more years	64%	1.32 (1.17 – 1.49)	1.31 (1.16 – 1.49)
Past week heroin injecting frequency			
None	57%	1	1
Less than daily	65%	1.06 (1.02 – 1.11)	1.08 (1.03 – 1.21)
Daily or more	64%	1.05 (1.00 – 1.11)	1.07 (1.01 – 1.13)

- aOR controlled for age, gender, recruitment site, employment, income, education, OST, stable accommodation, injecting career (years), injecting frequency, health service use, past year incarceration, pcs and mcs scores



Implications & Conclusions [1]

- Non-significantly lower prevalence & incidence among ATSI participants
- No association between HCV prevalence & ATSI status
- Independent correlates are injecting-related
- Culturally appropriate harm reduction services
- Acceptable harm reduction programs incorporated in ACCHO service



Implications & Conclusions [2]

- Proportionally over-represented among PWID & HCV
- Others have indicated high prevalence of factors associated with risk (e.g., public injecting, incarceration, sharing equipment, high frequency injecting, low knowledge)
- Inner urban ATSI participants in MIX – mainstream service coverage?
- Culturally appropriate harm reduction services
- Acceptable harm reduction programs incorporated in ACCHO service



Acknowledgements

- Study participants
- MIX Team
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Questions

