


THE PREVALENCE AND RISK OF NON-INFECTIOUS COMORBIDITIES IN MEN LIVING WITH HIV WHO ATTEND GENERAL PRACTICE IN AUSTRALIA

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PUBLICATION




RESEARCH ARTICLE



The prevalence and risk of non-infectious comorbidities in HIV-infected and non-HIV infected men attending general practice in Australia

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BACKGROUND

The cohort of people living with HIV (PLHIV) is ageing.

Comorbidity and the complexity of medical care among PLHIV is increasing.

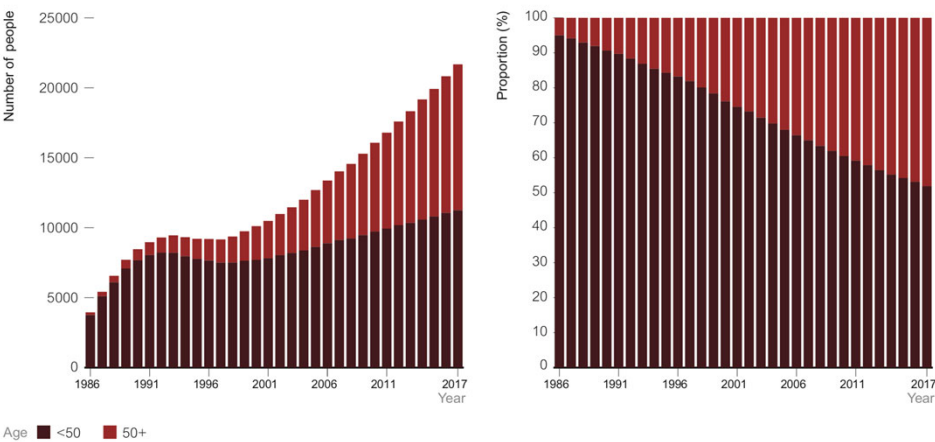
Life expectancy among PLHIV has improved as the proportion of deaths attributable to AIDS-related illness has declined.

Non-AIDS related mortality rates remain higher among PLHIV than otherwise matched HIV negative peers.



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NUMBER AND PROPORTION OF PEOPLE LIVING WITH HIV AND
DIAGNOSED, 1986–2017, INCLUDING AGE DISTRIBUTION, MALES

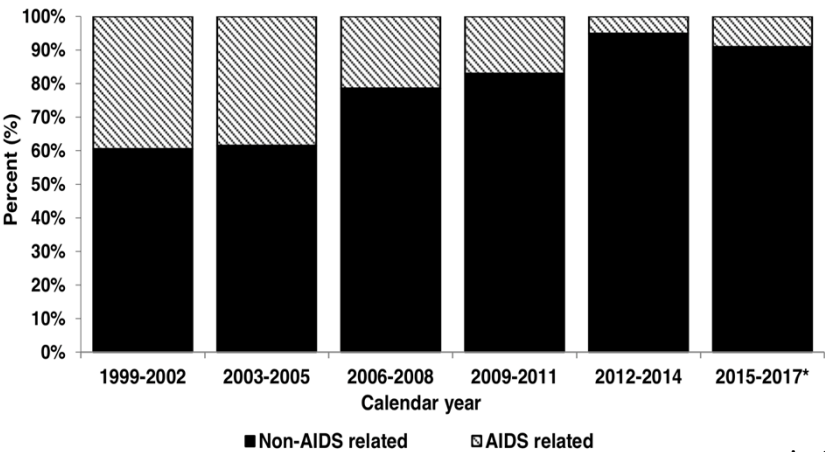


HIV, viral hepatitis and sexually transmissible infections
in Australia: Annual surveillance report 2018



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PROPORTION OF AIDS AND NON-AIDS RELATED DEATHS

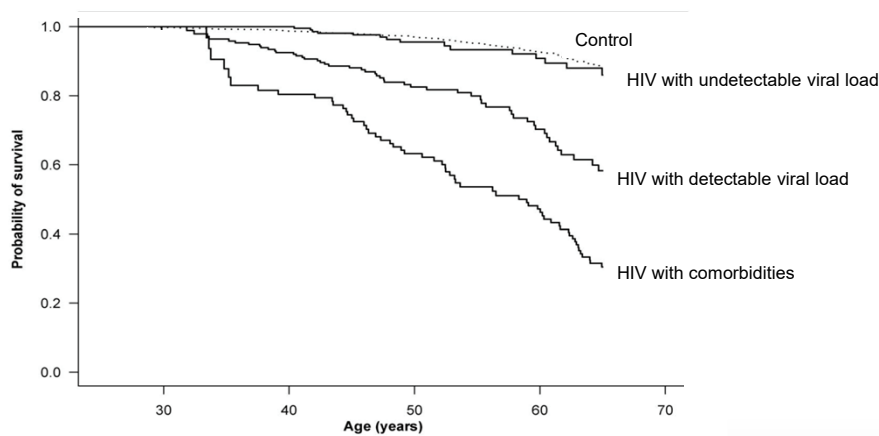


Australian HIV Observational
Database Annual Report 2017



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SURVIVAL ONE YEAR AFTER COMMENCING ANTIRETROVIRAL THERAPY



Modified from,
Obel, et al. (2011)



AIM

To describe the prevalence and risk of selected non-infectious comorbidities among men living with HIV in Australia.



NON-INFECTIOUS COMORBIDITIES

Cardiovascular disease
Chronic kidney disease
Diabetes mellitus
Cancer
Osteoporosis

Anxiety
Depression

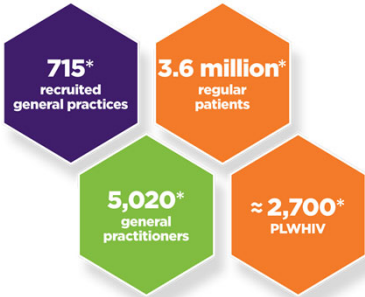
Increased prevalence among people living with HIV
Potential drivers of excess mortality
Targets of prevention and screening measures

Mental health services and psychological support
identified as an area of unmet need

Chan, et al. (2018)



METHODS



* June 2019

Inclusion criteria:

- Adult, males
- ≥3 visits to a GP in 2 years

Study cohorts:

- people living with HIV
- all other patients from the same practices



METHODS

Clinical definitions

- *HIV infection*: diagnosis tables, reason for prescription, or reason for visit
- *NICMs*: free text fields including diagnosis, medical history, reason for encounter and reason for prescription
- clinician recorded, dichotomous outcomes

Socioeconomic status

Rurality



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RESULTS



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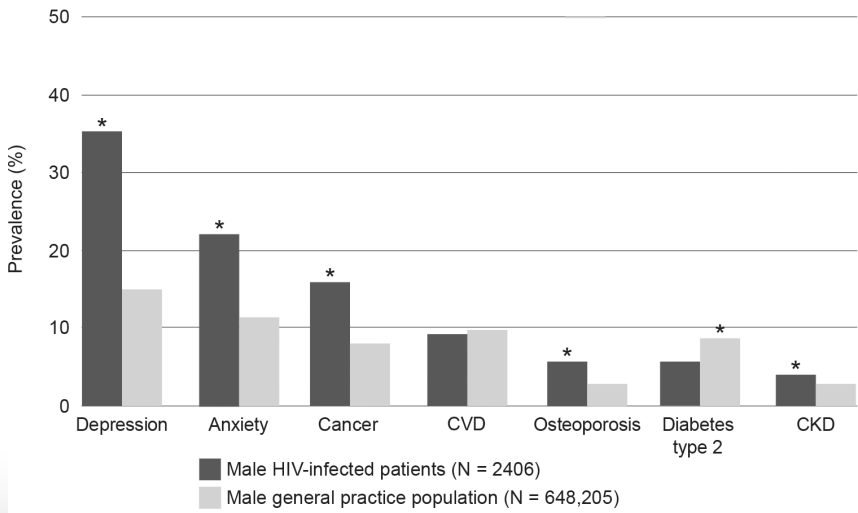
PARTICIPANT CHARACTERISTICS

Characteristics	Male HIV-infected (N = 2,406)		Male general practice population (N = 648,205)	
	Number	%	Number	%
Age group				
18–29 years	95	3.9	107,170	16.5
30–44 years	591	24.6	159,760	24.6
45–64 years	1,417	58.9	216,630	33.4
65–74	248	10.3	94,697	14.6
75+	55	2.3	69,948	10.8
Patient rurality				
Major cities	1,925	80.0	407,328	62.8
Inner regional	356	14.8	156,787	24.2
Outer regional, remote and very remote	108	4.5	79,884	12.3
Missing	17	0.7	4,206	0.6
Patient SEIFA ^a quintile				
1 – more disadvantaged	213	8.9	112,833	17.4
2	274	11.3	102,797	15.9
3	400	16.6	138,167	21.3
4	441	18.3	123,256	19.0
5 – least disadvantaged	1,059	44.0	165,853	25.6
Missing	19	0.8	5,299	0.8



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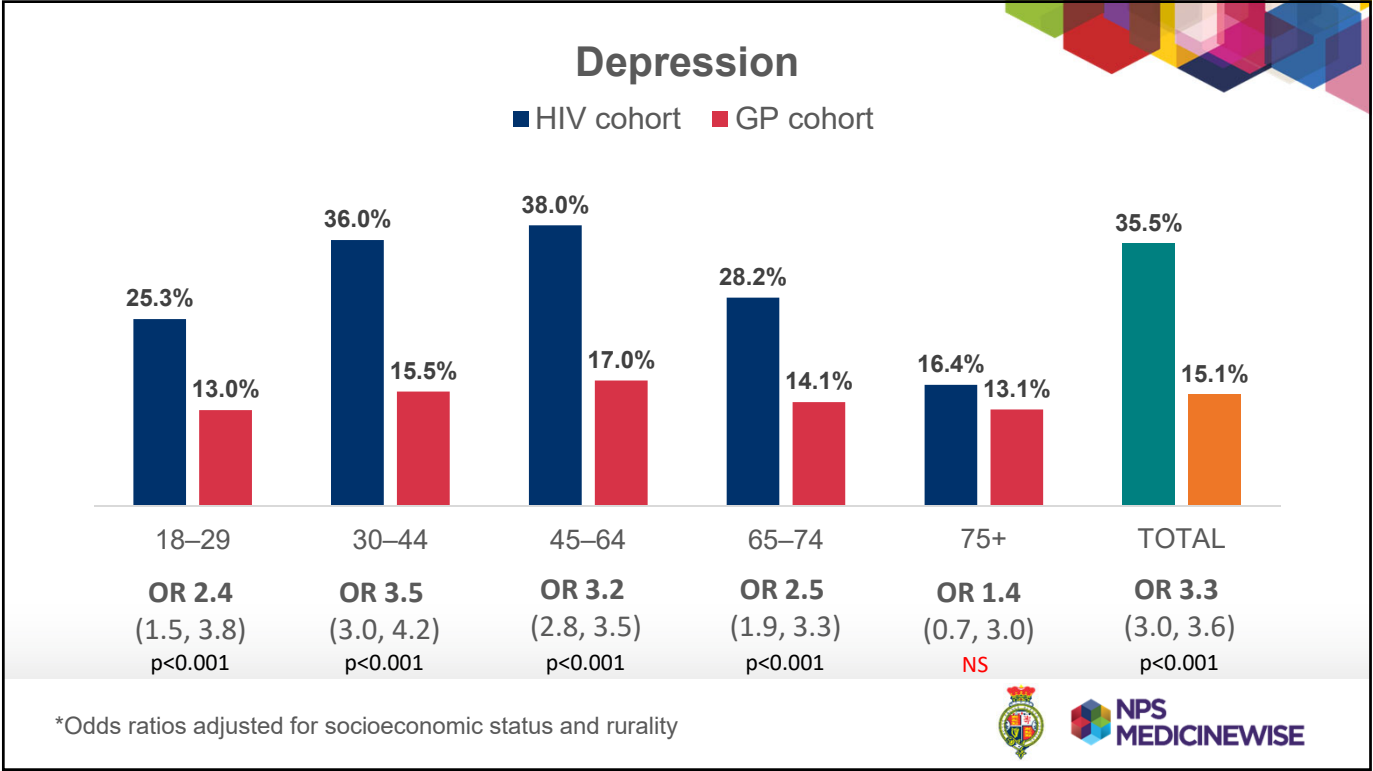
RECORDED PREVALENCE OF NICMS



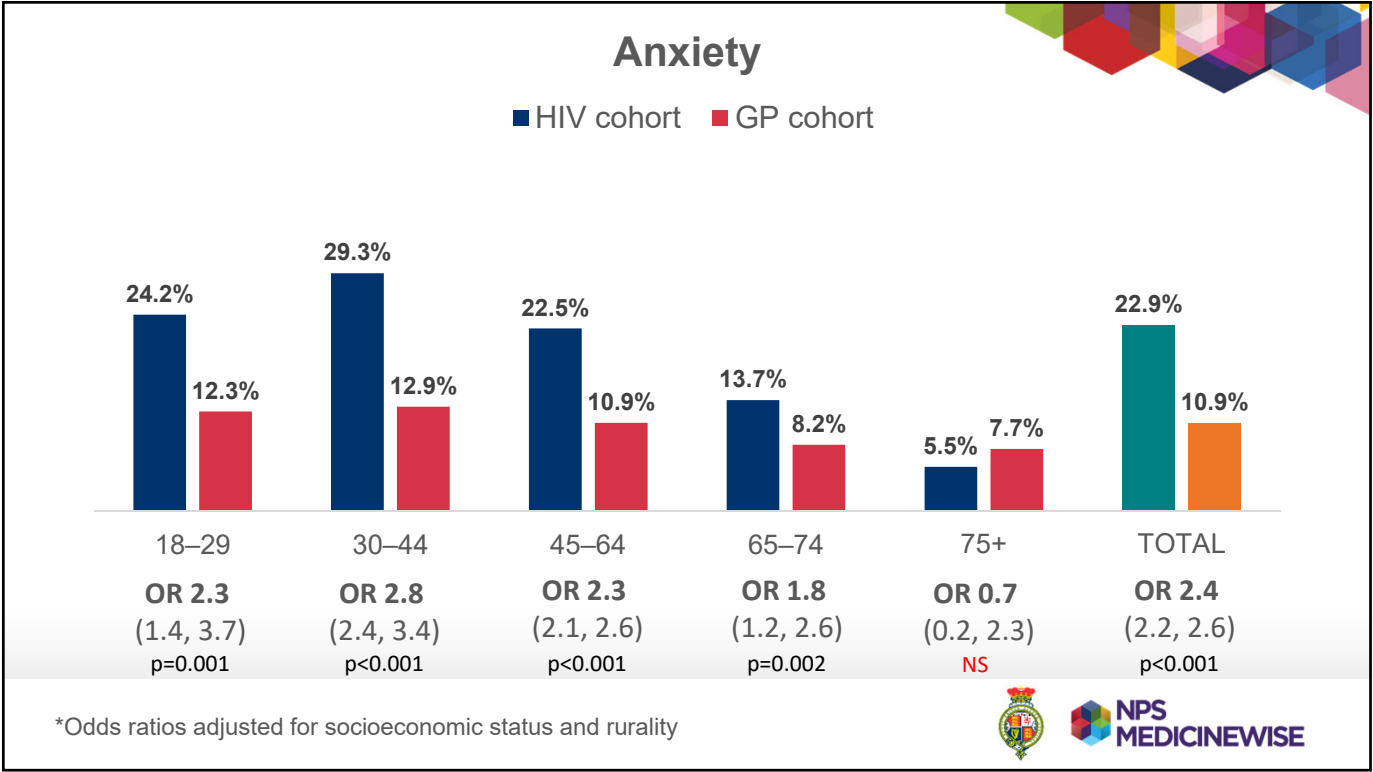
* Significantly higher (<0.001) prevalence



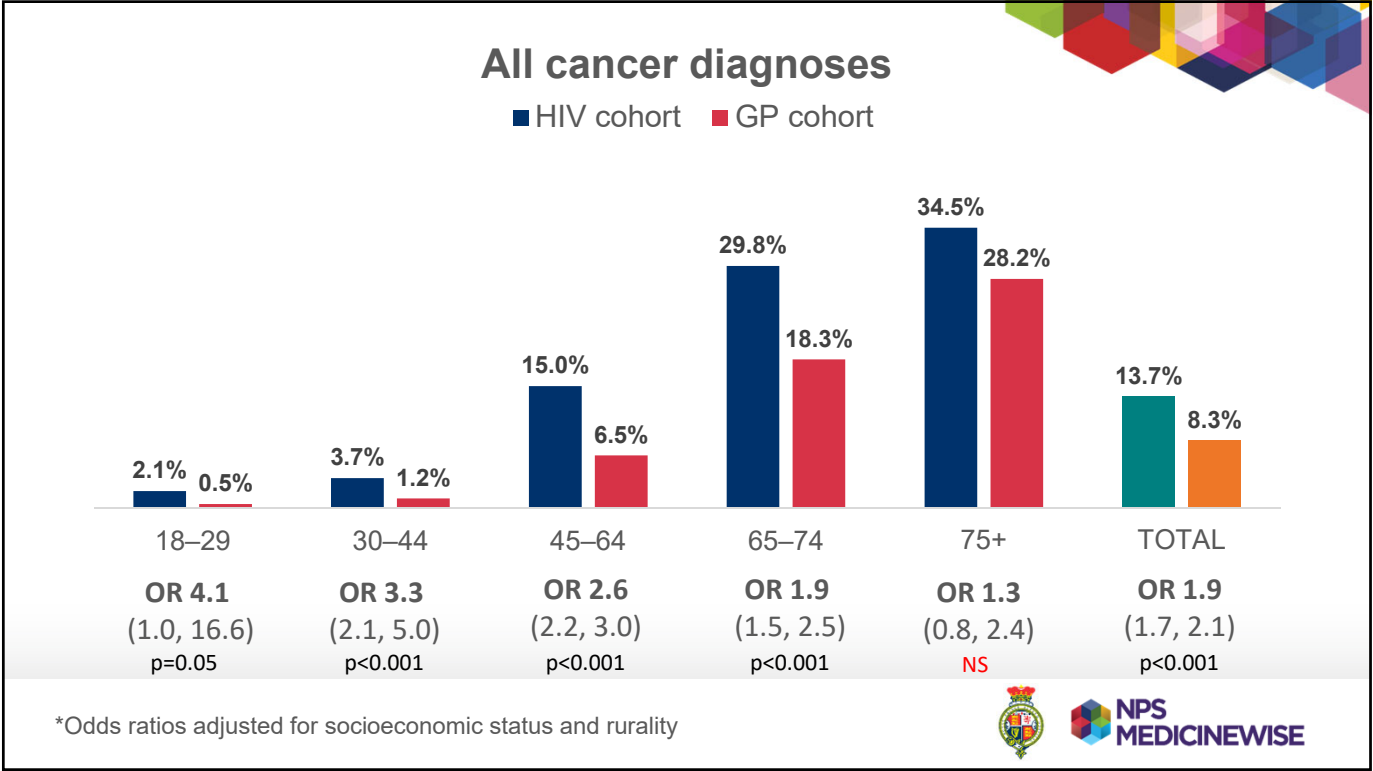
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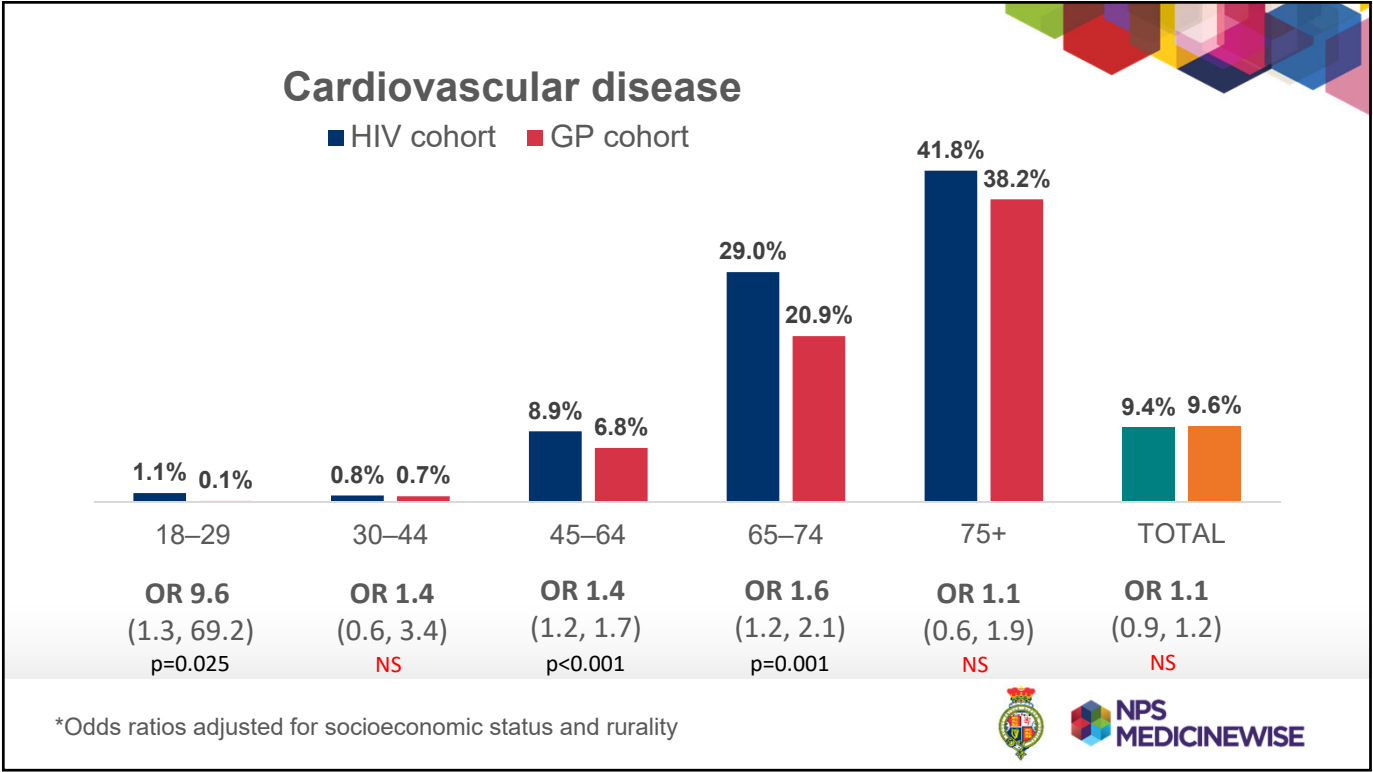
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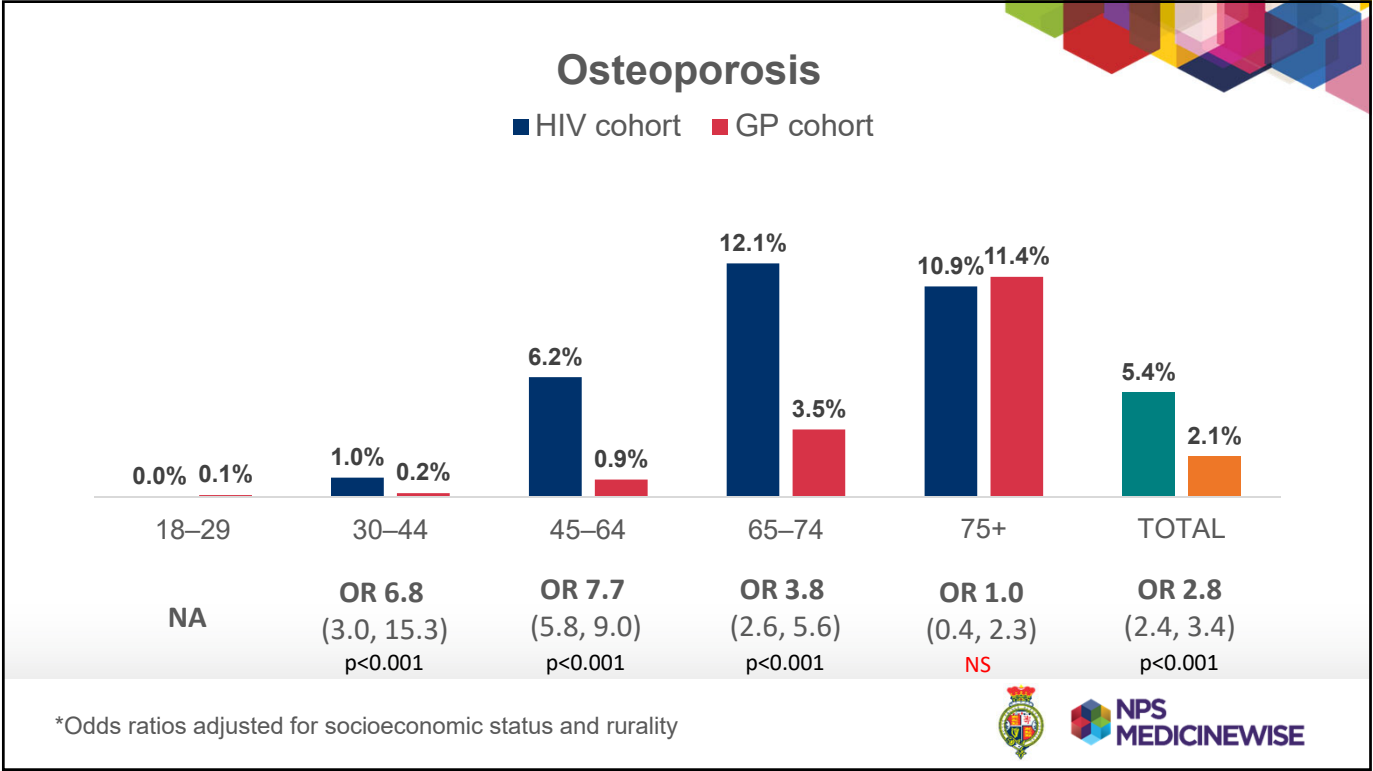
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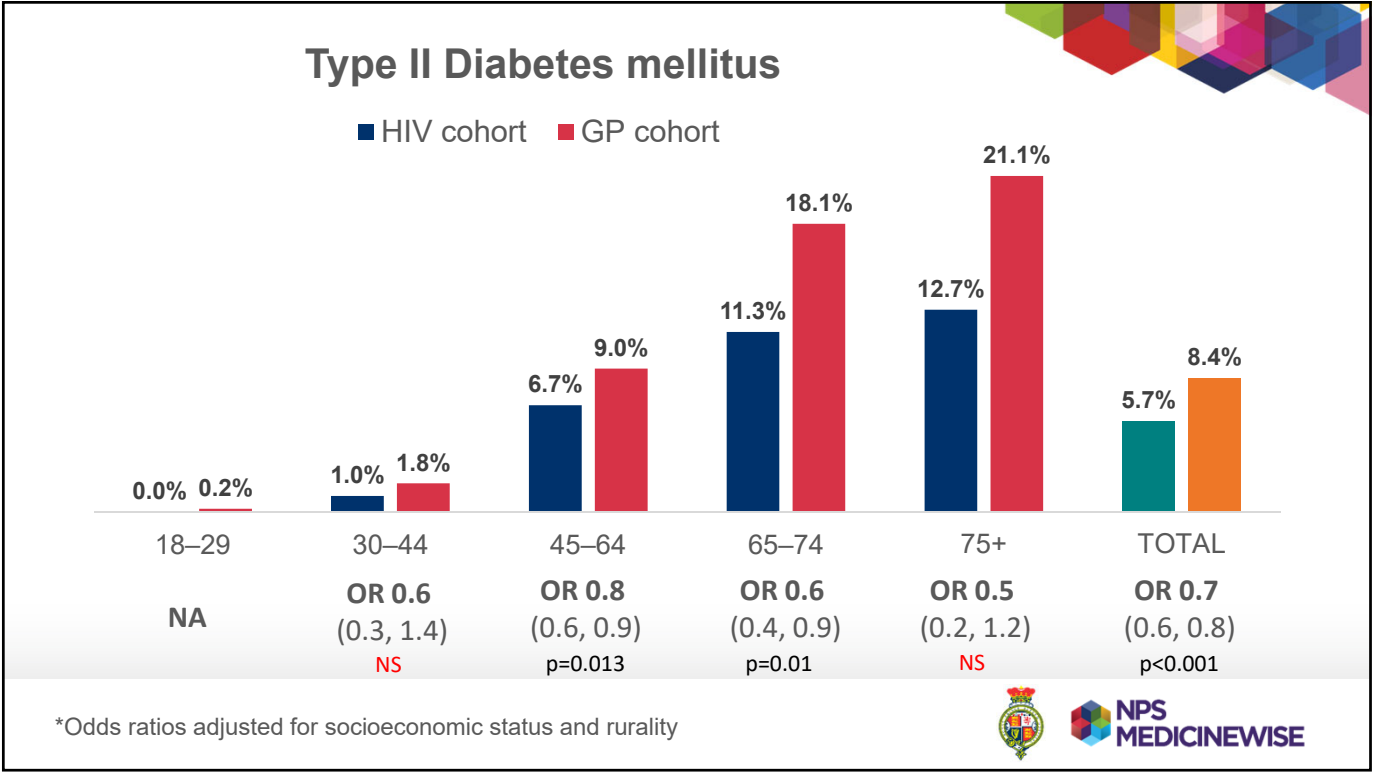
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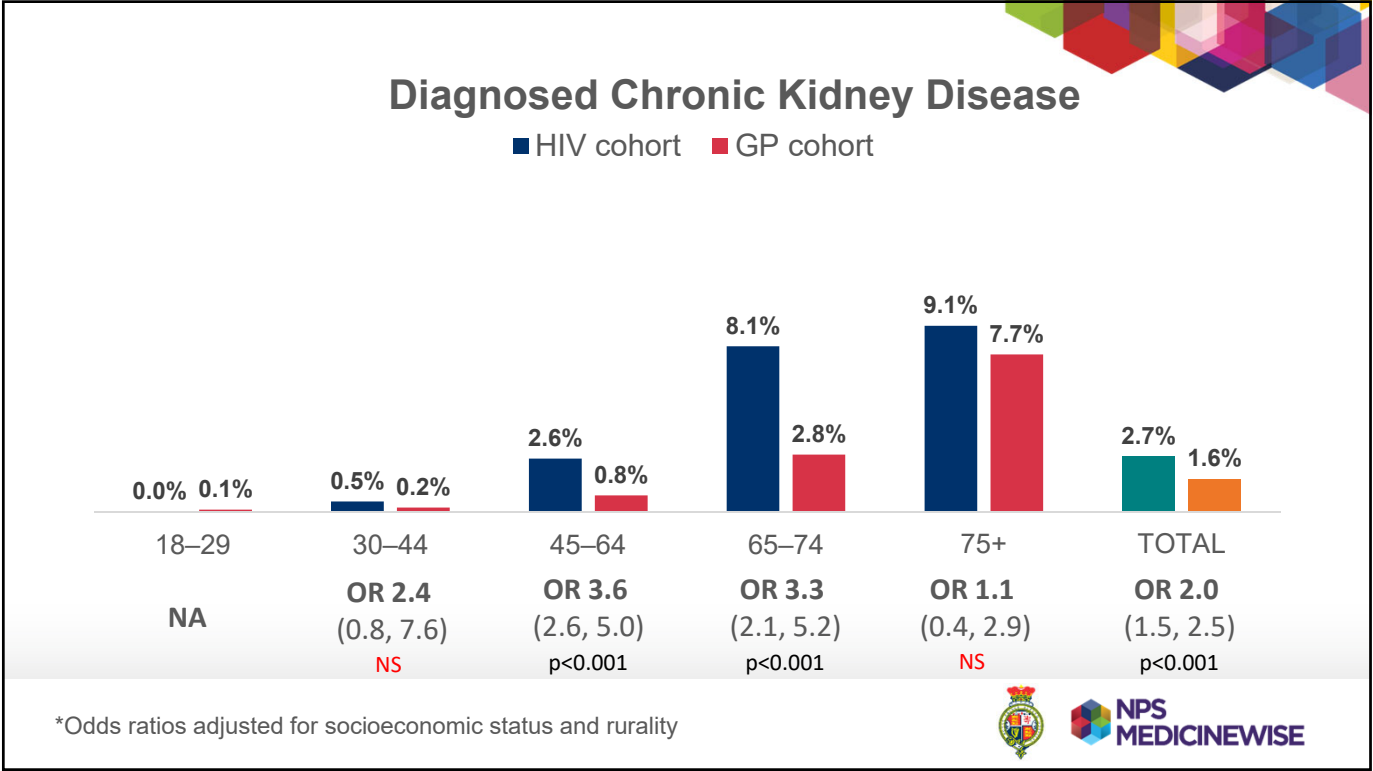
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Non-infectious comorbidity	Adjusted ORs (95% CI)*	Age adjusted ORs (95% CI)*
Depression	3.3 (3.1 - 3.6)	3.0 (2.8 – 3.4)
Anxiety	2.4 (2.2 - 2.6)	2.4 (2.2 – 2.6)
Cancer	1.9 (1.7 - 2.1)	2.4 (2.1 – 2.7)
Cardiovascular disease	1.1 (0.9 - 1.2)	1.4 (1.2 – 1.6)
Osteoporosis	2.8 (2.4 - 3.4)	5.1 (4.2 – 6.1)
Diabetes	0.7 (0.6 - 0.8)	0.7 (0.6 – 0.8)
CKD	2.0 (1.5 - 2.5)	3.0 (2.3 – 3.9)

* adjusted for SEIFA and rurality

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LIMITATIONS

- Retrospective, cohort study design.
 - Unmeasured biases.
 - Ascertainment bias (e.g. OP, CVD).
- Unadjusted for other risk factors that may vary between groups.
 - Viral hepatitis, smoking, BMI, other lifestyle factors etc.
- Data extracted from clinical information systems.
 - Case definitions.
 - Does not include sexual health clinics.



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CONCLUSIONS

Men living with HIV have higher recorded rates of depression, anxiety, all cancer diagnoses, osteoporosis and CKD than other men attending for primary care.

Men living with HIV have lower rates of diagnosed diabetes, despite adjustment for age, rurality and socioeconomic status.

CKD is under-recorded in general practice clinical information systems.



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