

How well is the 23vPPV working in Indigenous adults?

Rob Menzies

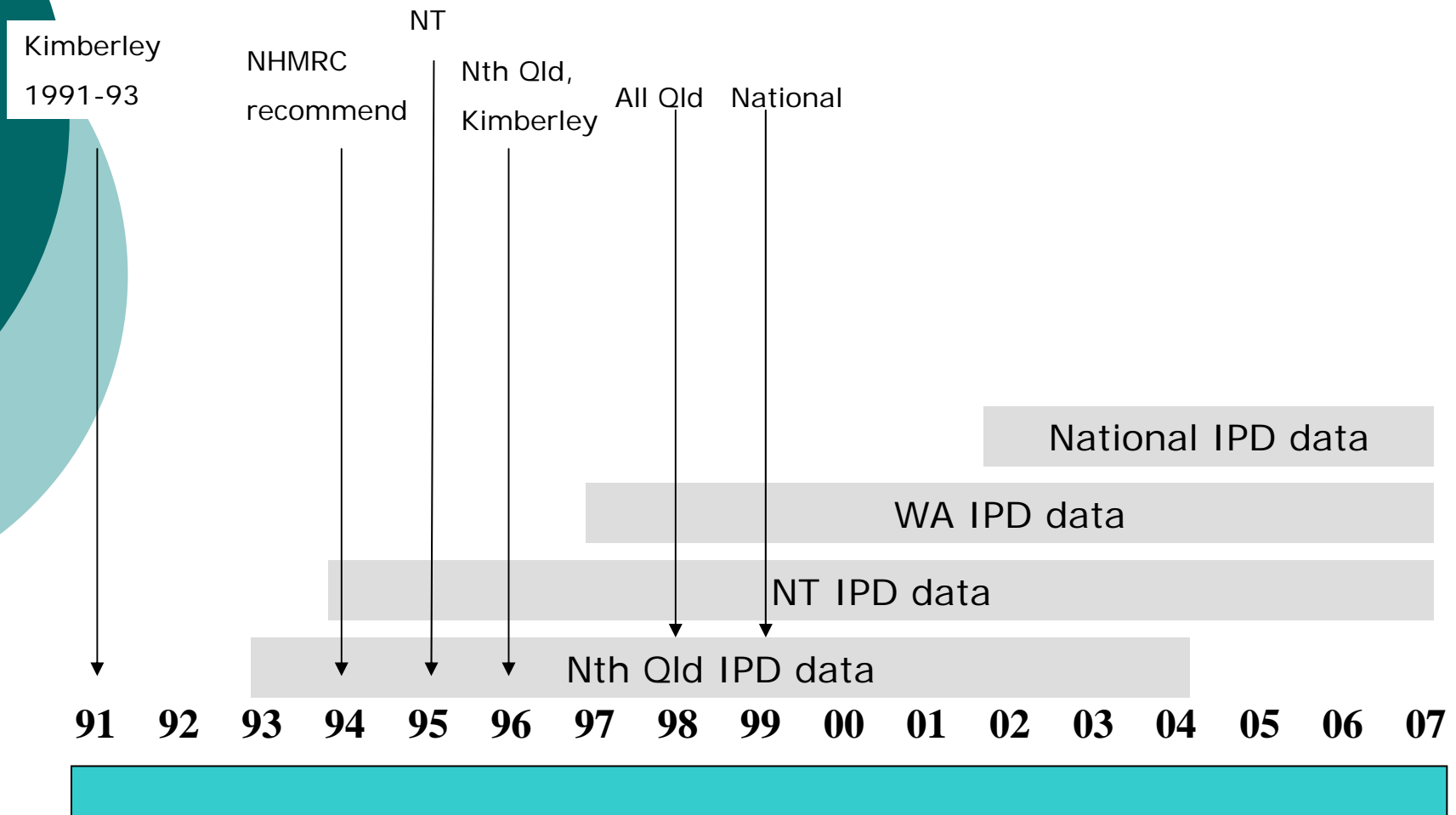




Acknowledgements

- Ross Andrews
- Deborah Lehman
 - Telethon Institute for Child Health Research
- Heather Cook
 - Northern Territory CDC
- Sarah Moberley
- Enhanced IPD Surveillance Working group
- ABS

23vPPV – history of Indigenous vaccination programs



23vPPV recommended and funded for Indigenous adults:

- ≥50 years
- 15-49 years with risk factors
 - Chronic disease
 - Heavy alcohol use
 - Smoking
- All 15+ years in NT



Methods

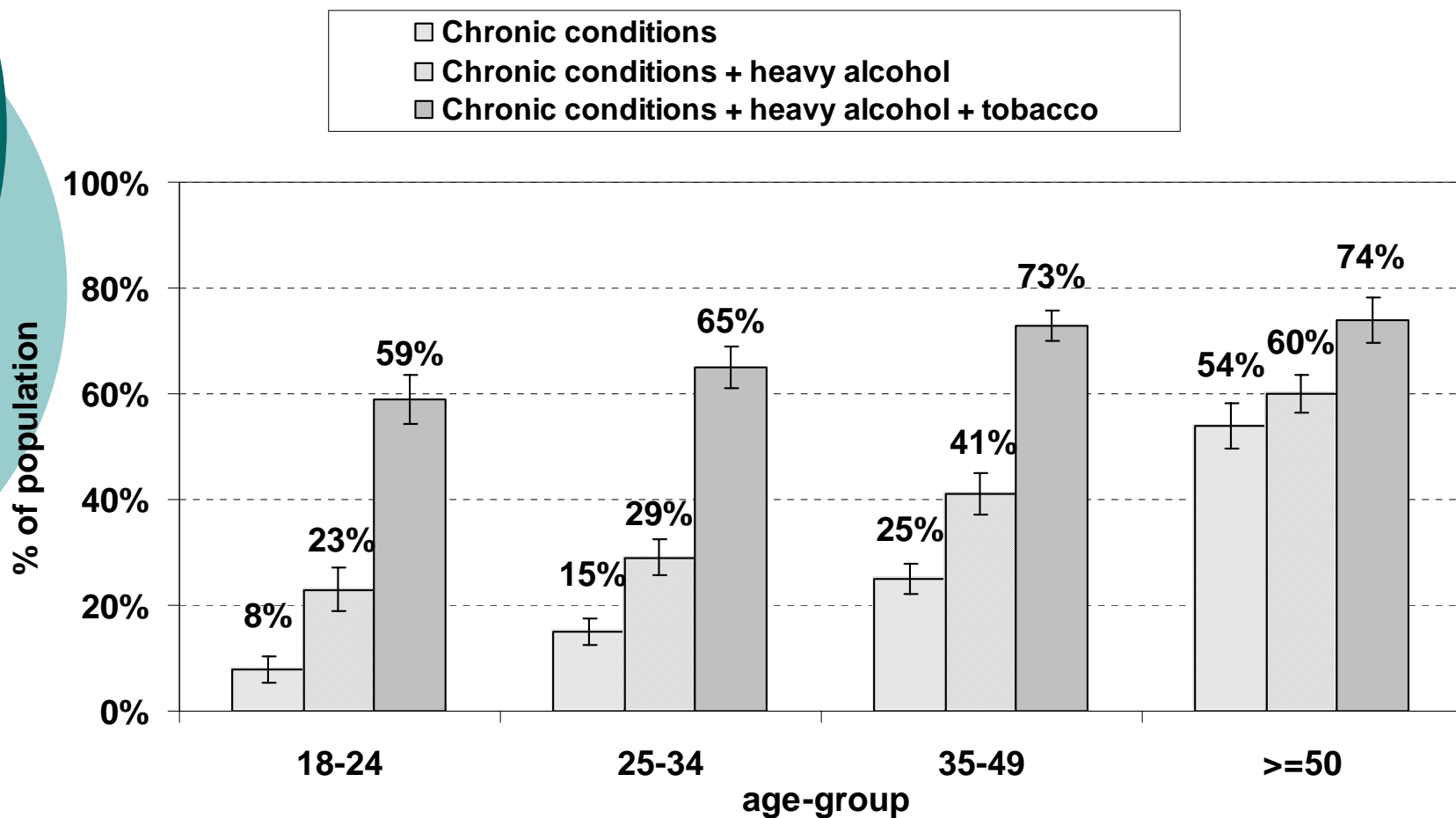
- IPD notifications rates
- Vaccine effectiveness
 - NT
 - Screening method
 - Indirect cohort method
 - National
 - Indirect cohort method



Methods, cont.

- National Aboriginal and Torres Strait Islander Health Survey 2004-05
 - Vaccination coverage
 - Risk factor prevalence
- NT Immunisation Register
 - Vaccination coverage

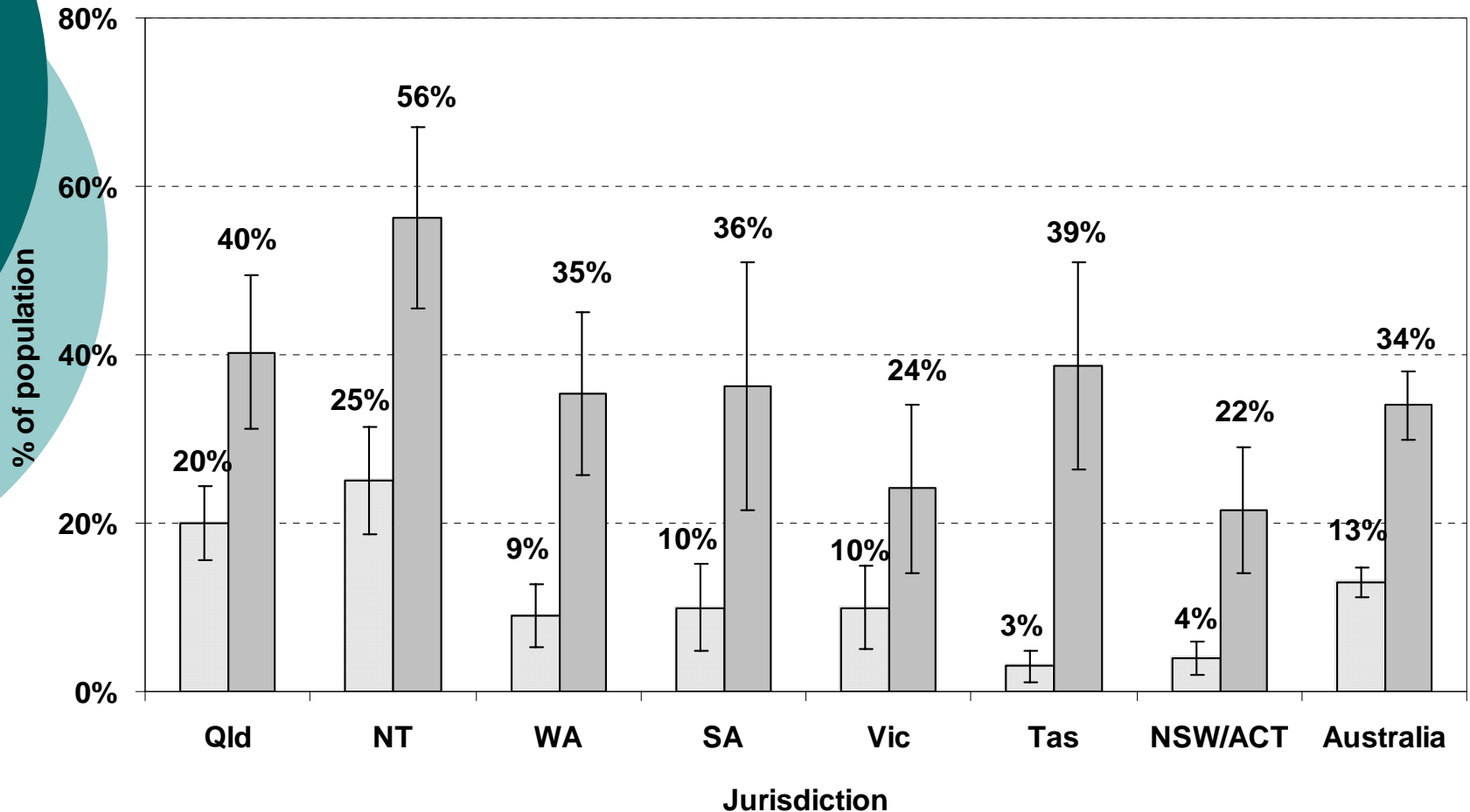
Risk factor prevalence, Indigenous Australian adults, 2004-05



Source: Australian Bureau of Statistics National Aboriginal and Torres Strait Islander Health Survey, 2004-05

Receipt of 23vPPV in previous 5 years

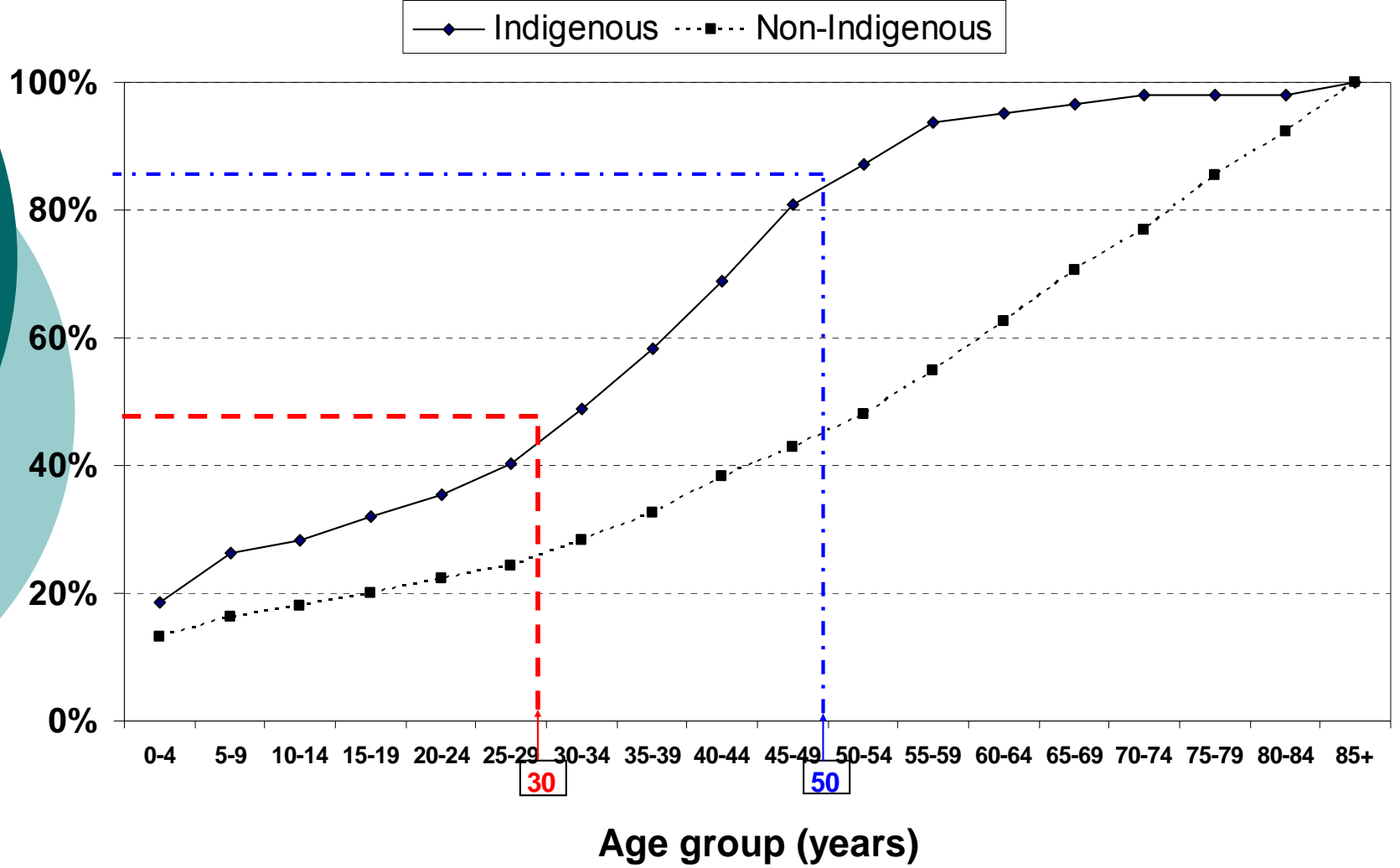
□ Indigenous population aged 18-49 with risk factor(s) □ Total indigenous population aged 50 or over



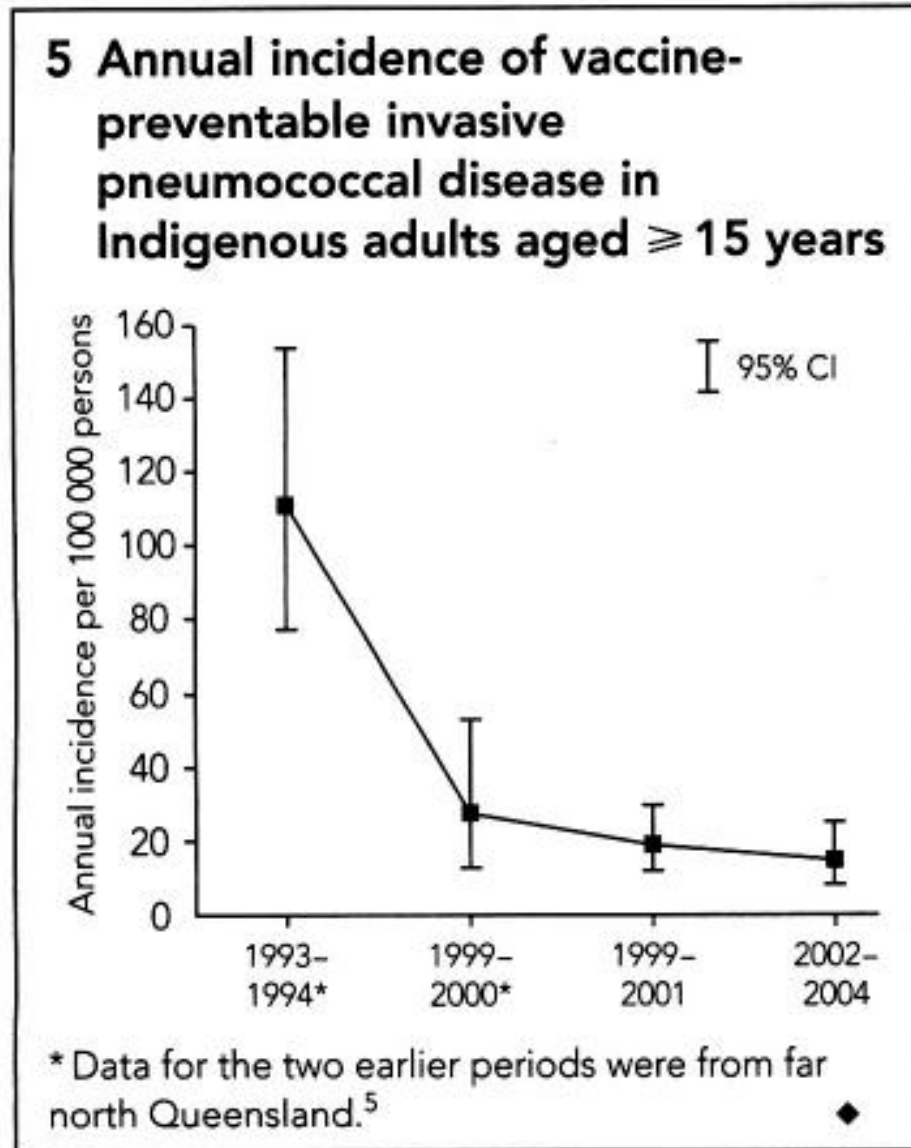
Source: Australian Bureau of Statistics National Aboriginal and Torres Strait Islander Health Survey, 2004-05

Cumulative percentage of cases of IPD in Australians by age, 2006

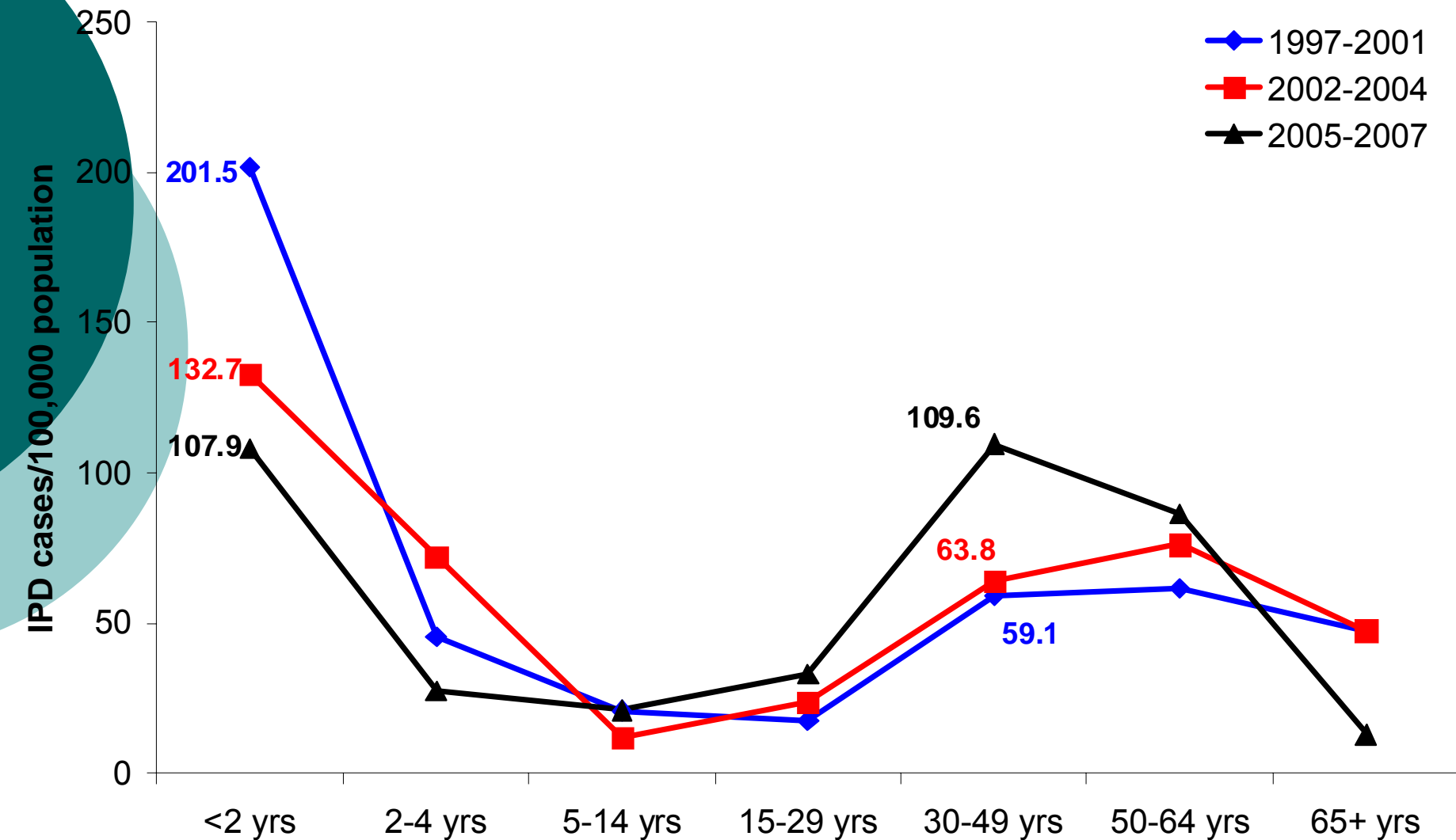
Cumulative percent of cases (2006)



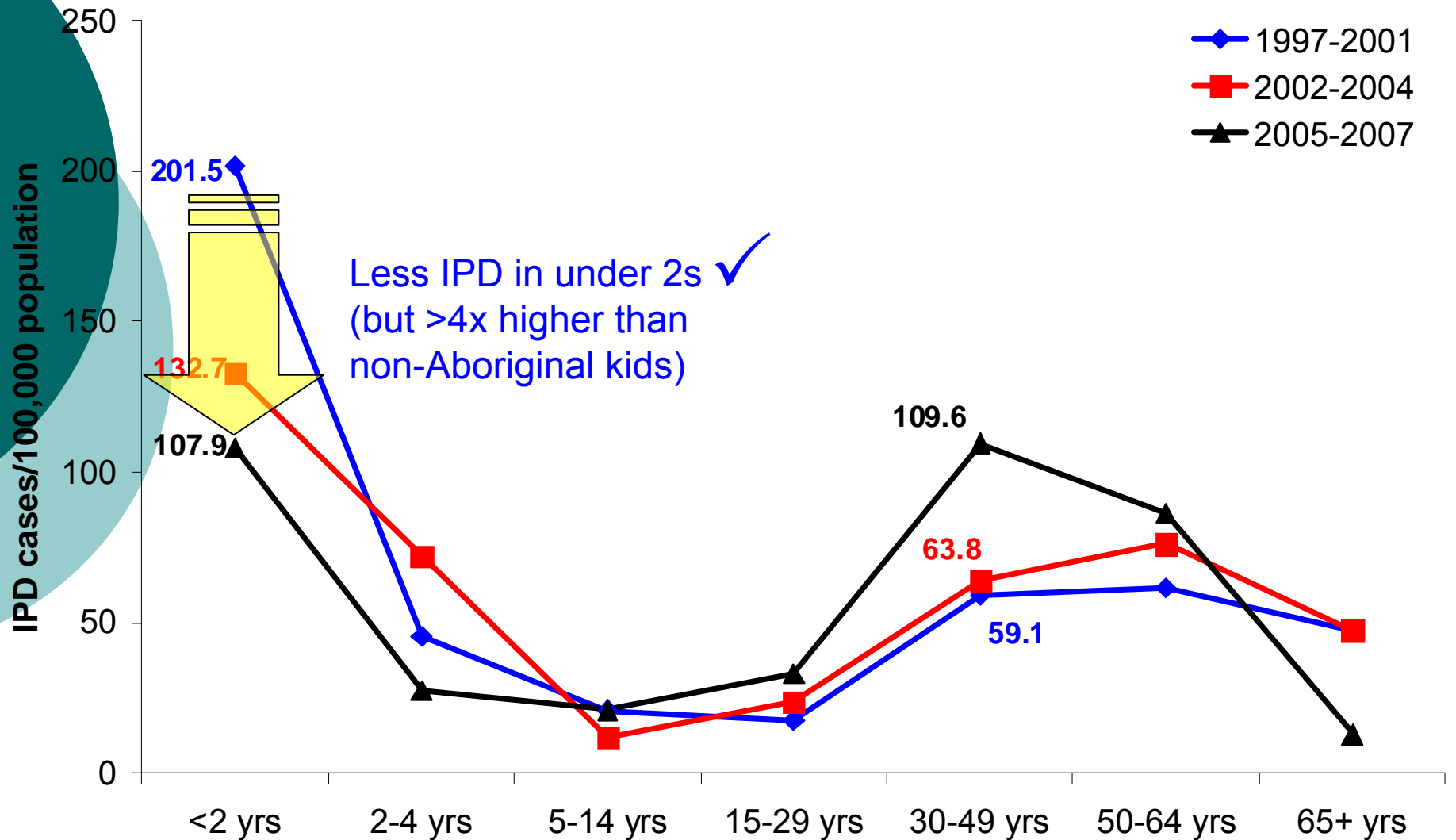
North Queensland



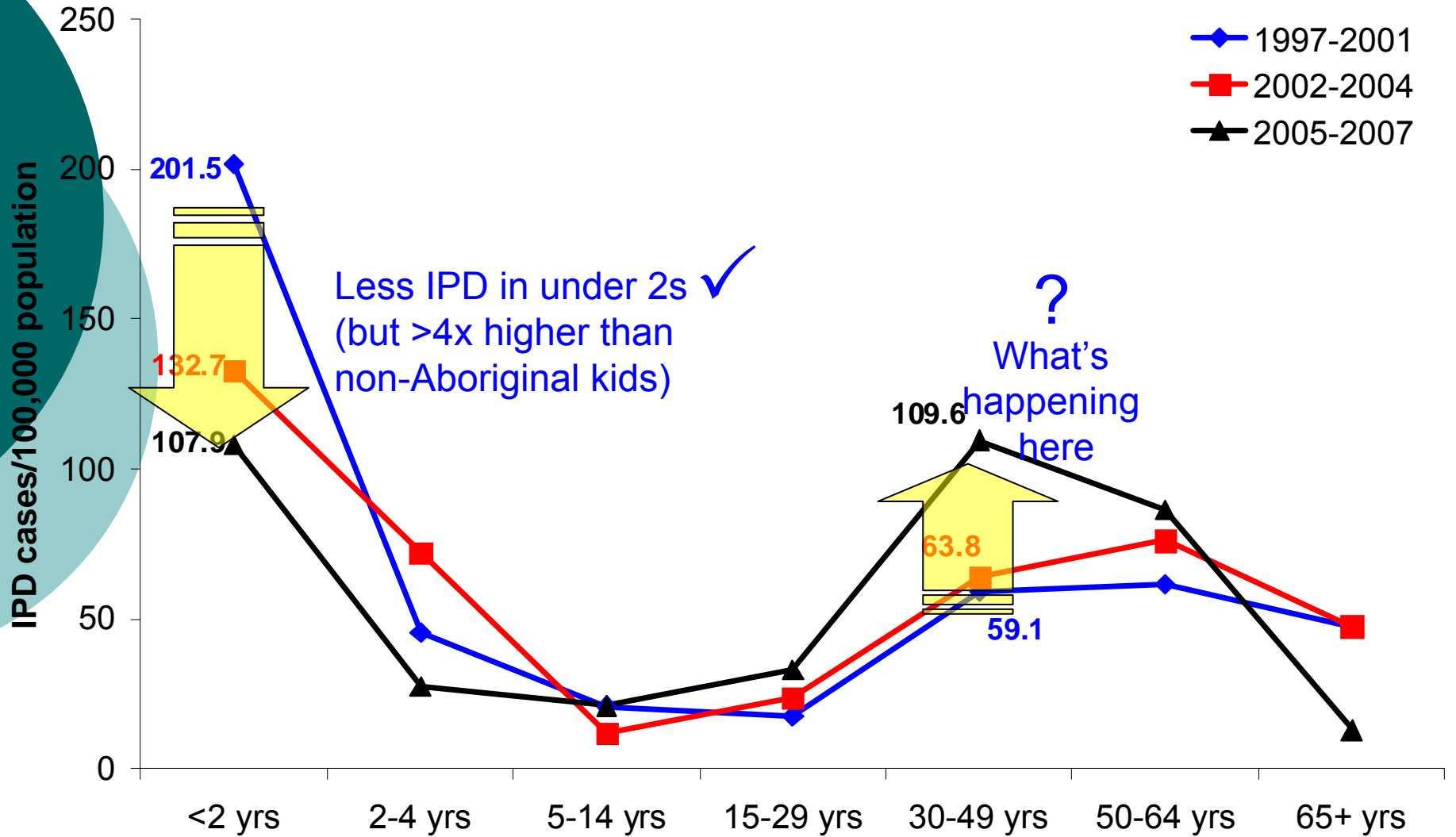
IPD in WA, 1997-2007 (Aboriginal population)



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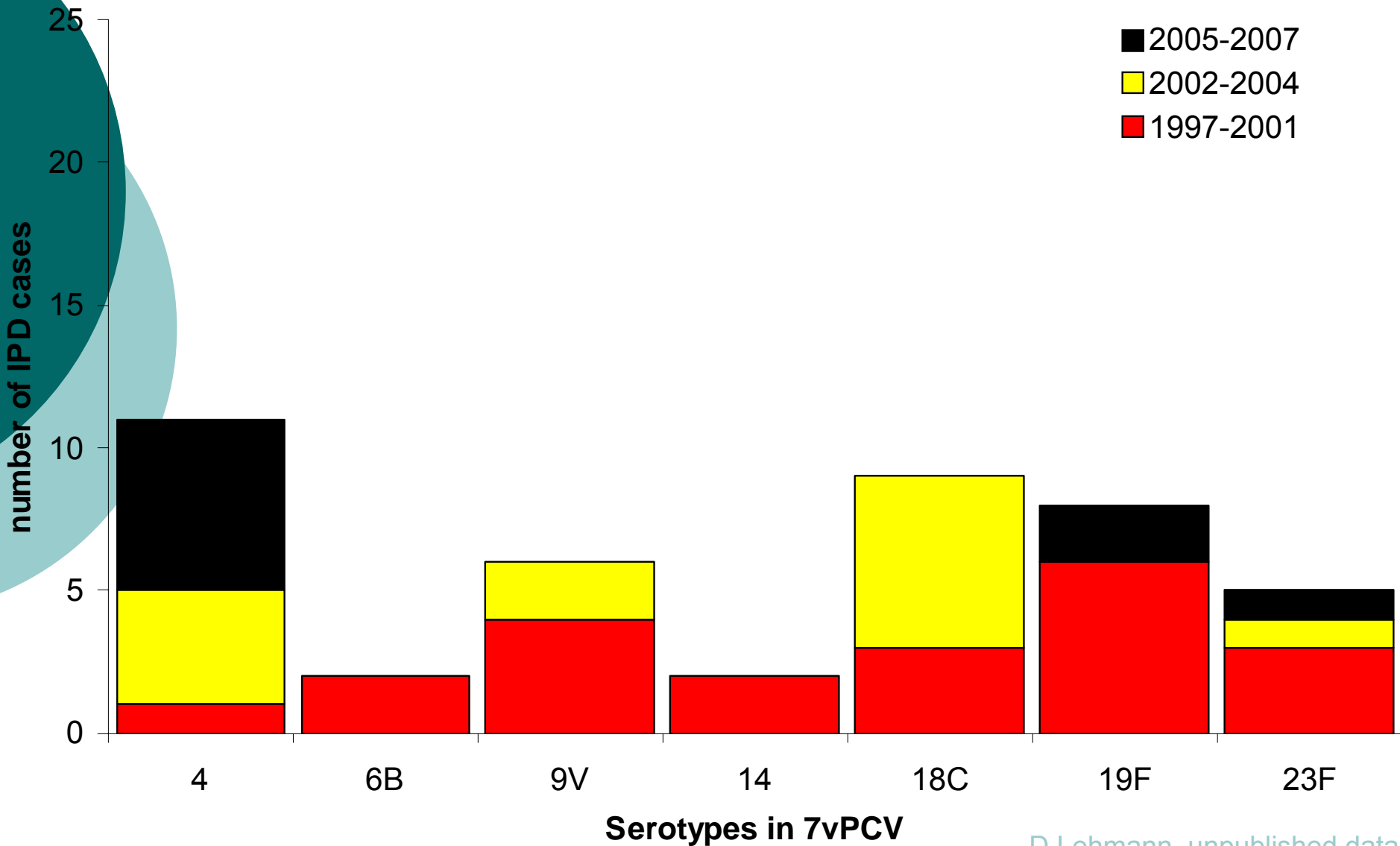


IPD in WA, 1997-2007 (Aboriginal population)

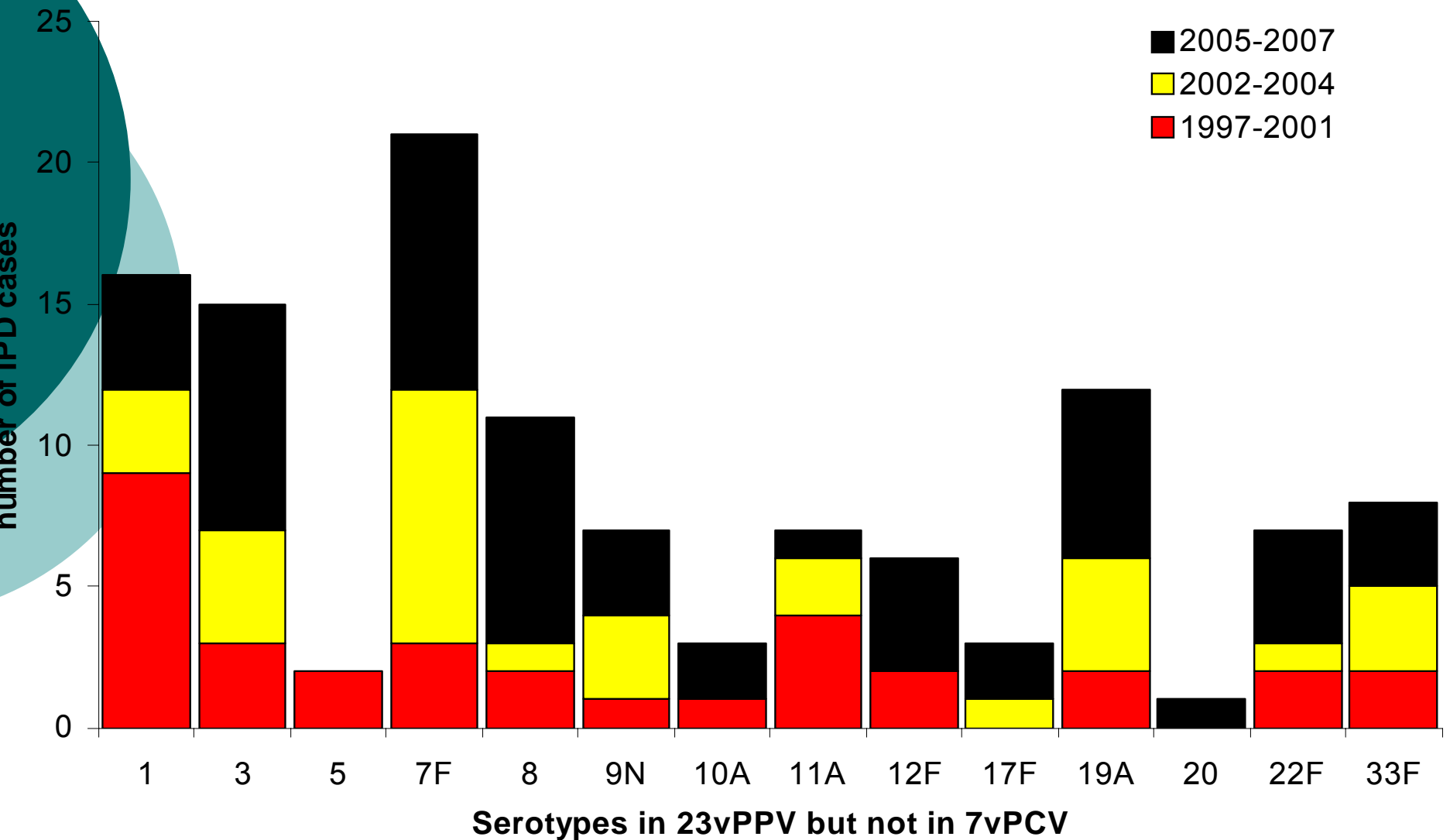


7v IPD types, 1997-2007

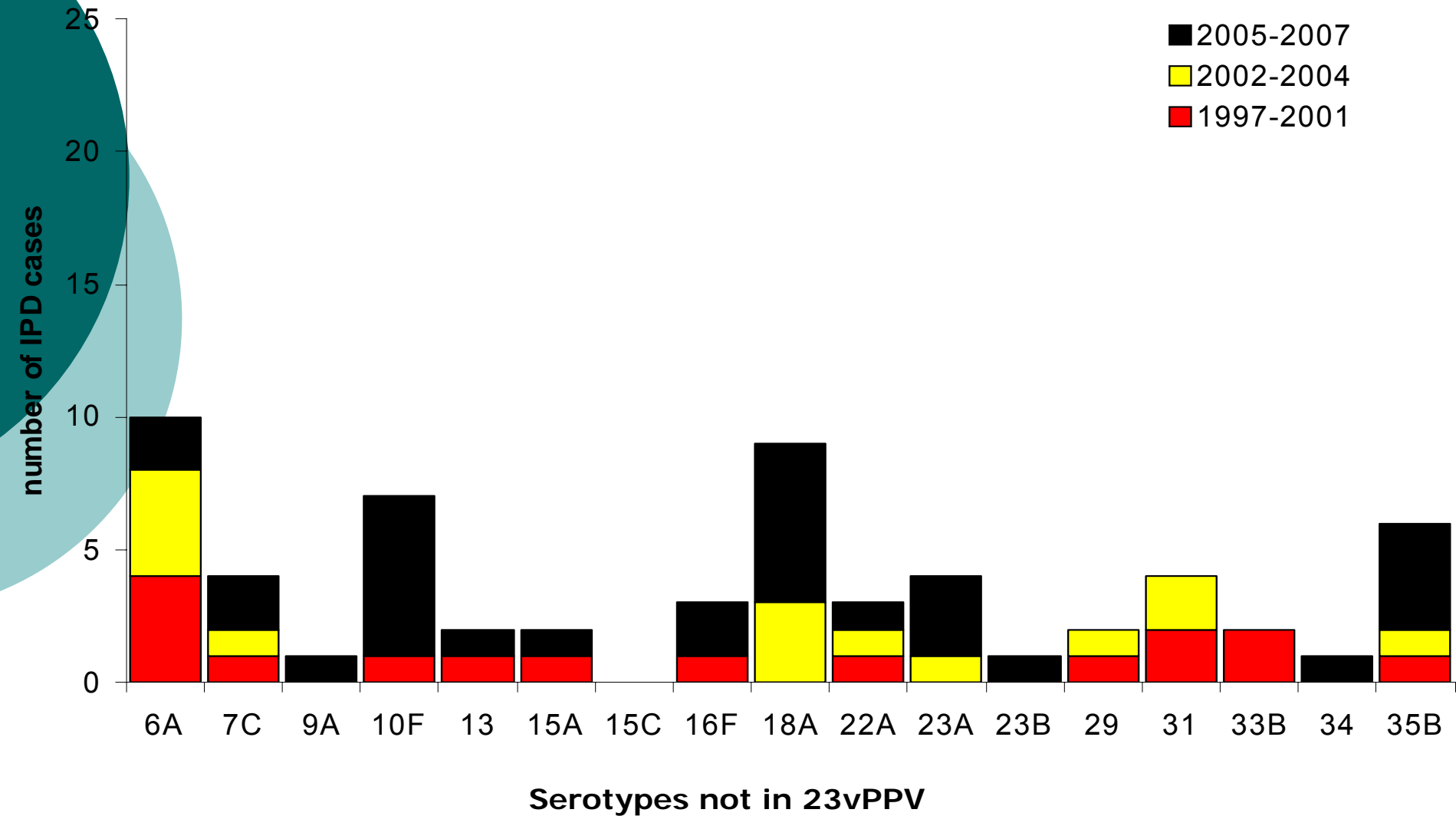
(WA Aboriginal population aged ≥ 15 years)



23v (non 7v) IPD types, 1997-2007 (WA Aboriginal population aged ≥ 15 years)

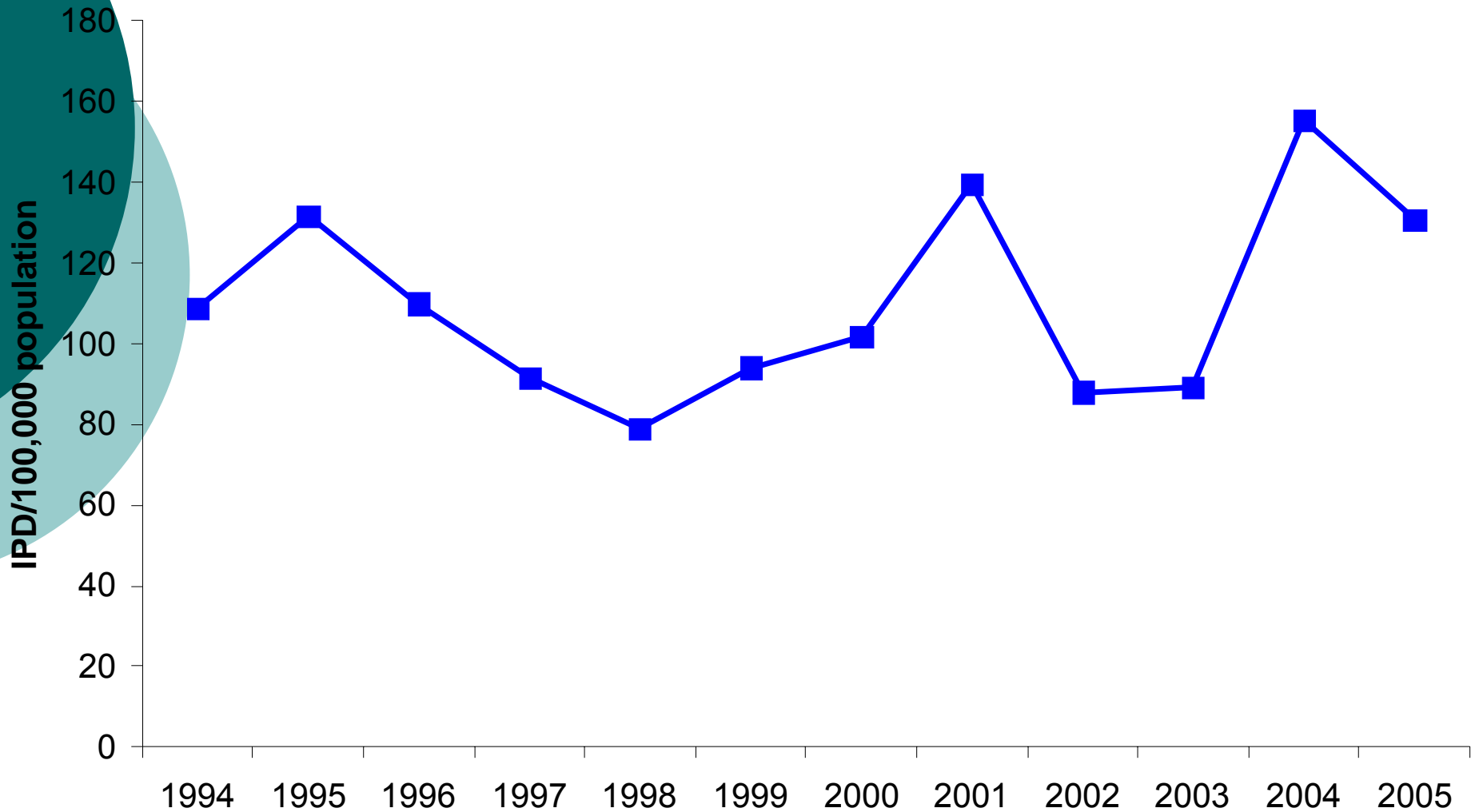


Non-vaccine IPD types, 1997-2007 (WA Aboriginal population aged ≥ 15 years)



IPD notifications, Northern Territory 1994-2005

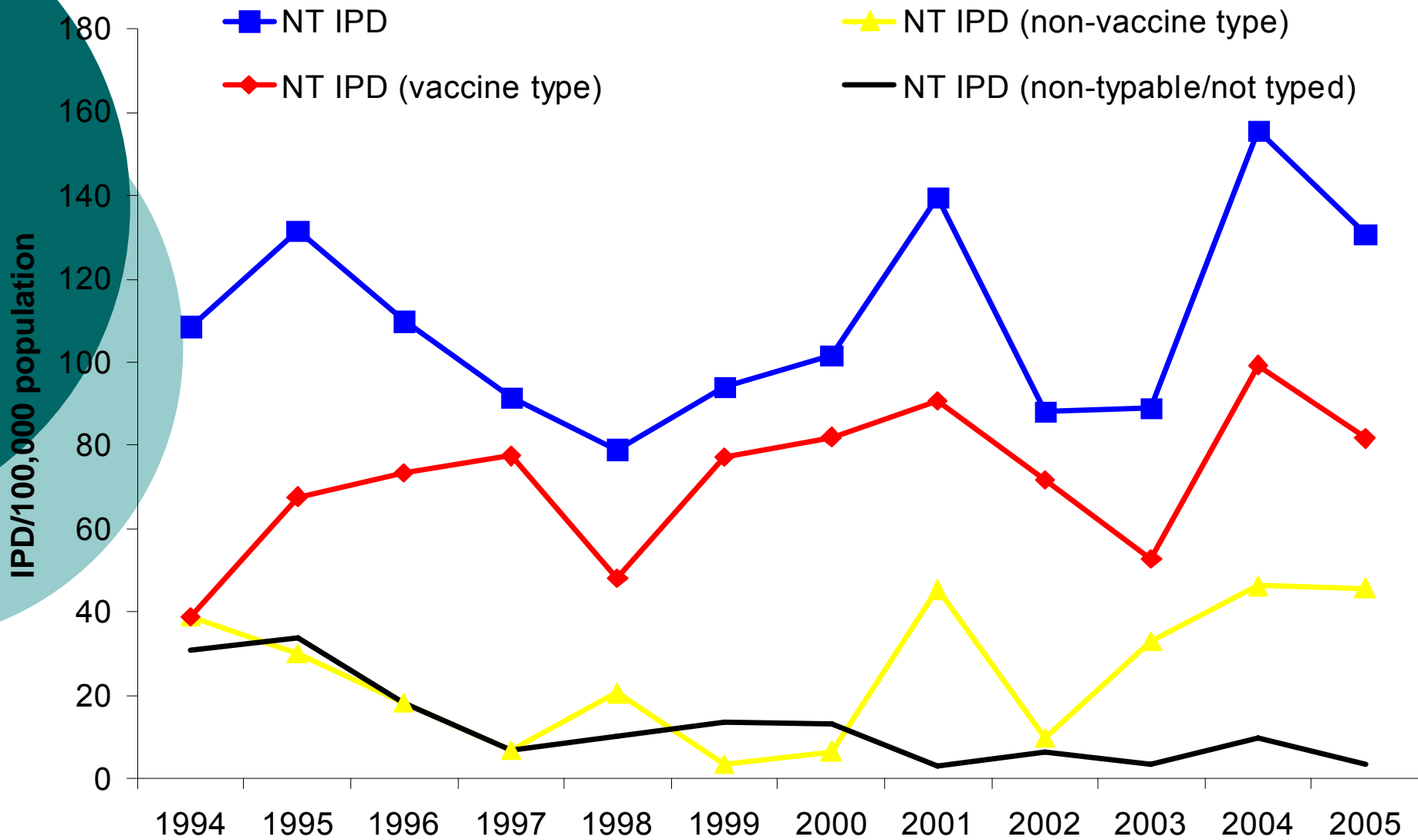
(Aboriginal population aged 15-39 years)



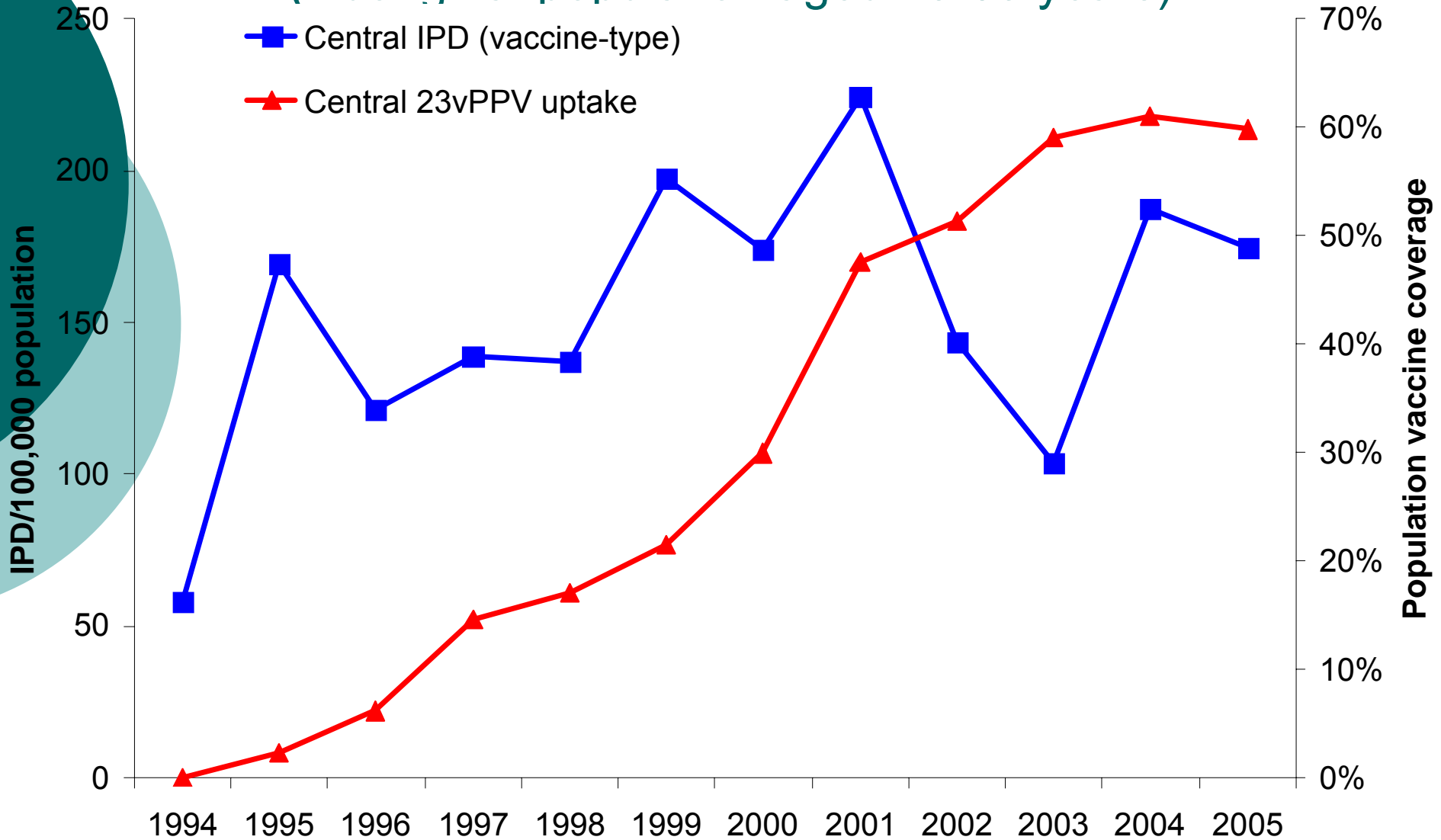
S Moberley, unpublished data

IPD types, 1994-2005

(NT Aboriginal population aged 15-39 years)

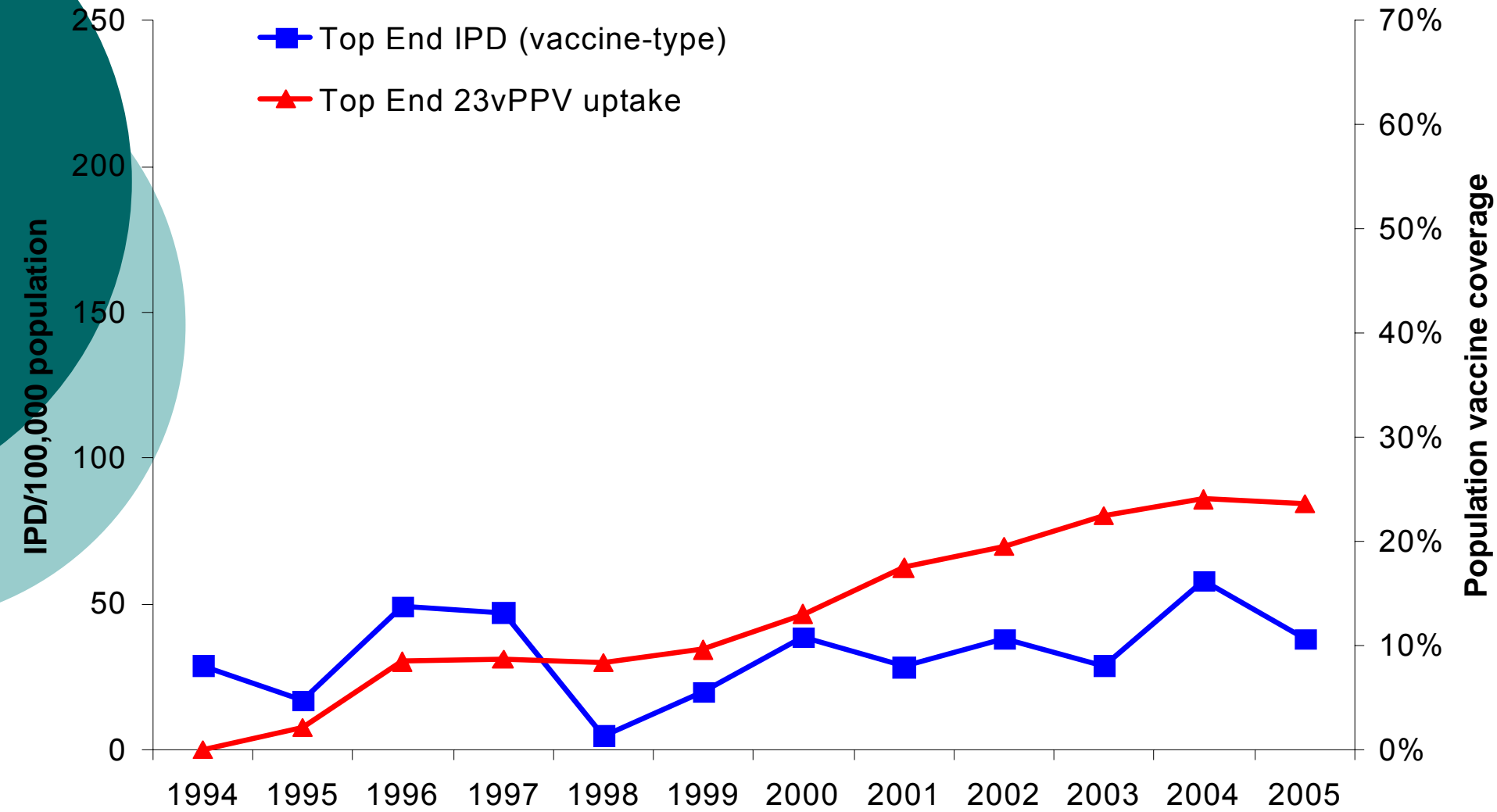


IPD and 23vPPV coverage, Northern Territory Central Region, (Aboriginal population aged 15-39 years)



S Moberley, unpublished data

IPD, NT Top End (Aboriginal population aged 15-39 years)



Vaccine effectiveness

<i>Region</i>	VE		Vaccine uptake amongst the comparator	
	<i>Screening method</i>	<i>Indirect cohort</i>	<i>Screening method</i>	<i>Indirect cohort</i>
NT	3% (-43%,35%)	57% (15%,78%)	36%	60% (33/55)
Central	67% (47%,80%)	60% (12%,82%)	63.6%	63% (27/43)
Top End	-56% (-220%,24%)	55% (-80%,88%)	24%	50% (6/12)

* Population coverage for screening method determined from NT imm register

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23vPPV effectiveness against IPD, Age ≥15 years, Indirect Cohort Method

Group	Ever vaccinated		Fully vaccinated†
	Unadjusted VE (95%CI)	Adjusted VE* (95%CI)	Adjusted VE* (95%CI)
Indigenous:			
All	55 (4 – 89)	63 (9 – 85)	70 (24 – 88)
Northern Australia	58 (-5 to 83)		
Northern Territory	56 (-39 to 86)		
Non-Indigenous	32 (-11 – 59)	38(-146 – 84)	70 (-47 – 94)

Conclusions

- Impact of 23vPPV on IPD is not clear
 - ✓ Nth Qld
 - ? WA
 - ? NT
- Low coverage, particularly in <50 years of age
- Most IPD in <50 year-olds
- VE estimates are >0
- Expand age eligibility?
 - Impact of ≥ 2 doses