

Late Diagnosis of HIV Infection among Adults - 1996-2007 - preliminary findings

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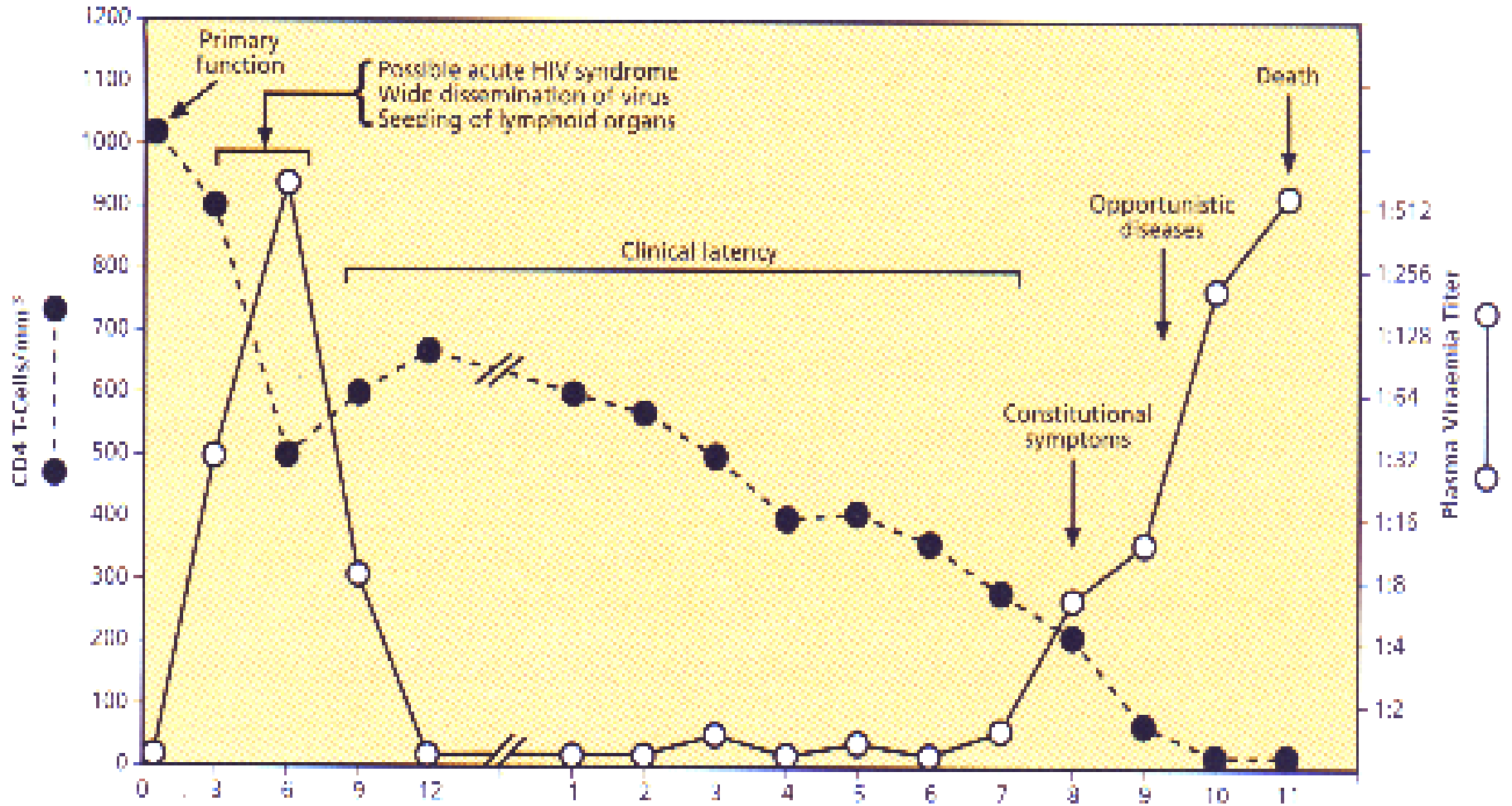
“Early” diagnosis of HIV infection allows...

- optimal decision regarding individual’s therapy
- helps in control of spread
 - Behaviour change
 - Reduction in viral load

“Late” diagnosis doesn’t!

To describe preliminary findings of late diagnoses of HIV infection among adults in New Zealand diagnosed between 1996 and 2007

Figure 9: The Phases of HIV Infection and the immune response



“Late testers”

“Clinical Late tester”

- Diagnosis of AIDS around time of HIV diagnosis
- Within 3/12 of each other
 - as used in Australia
 - other have used 1/12 and 12/12 periods

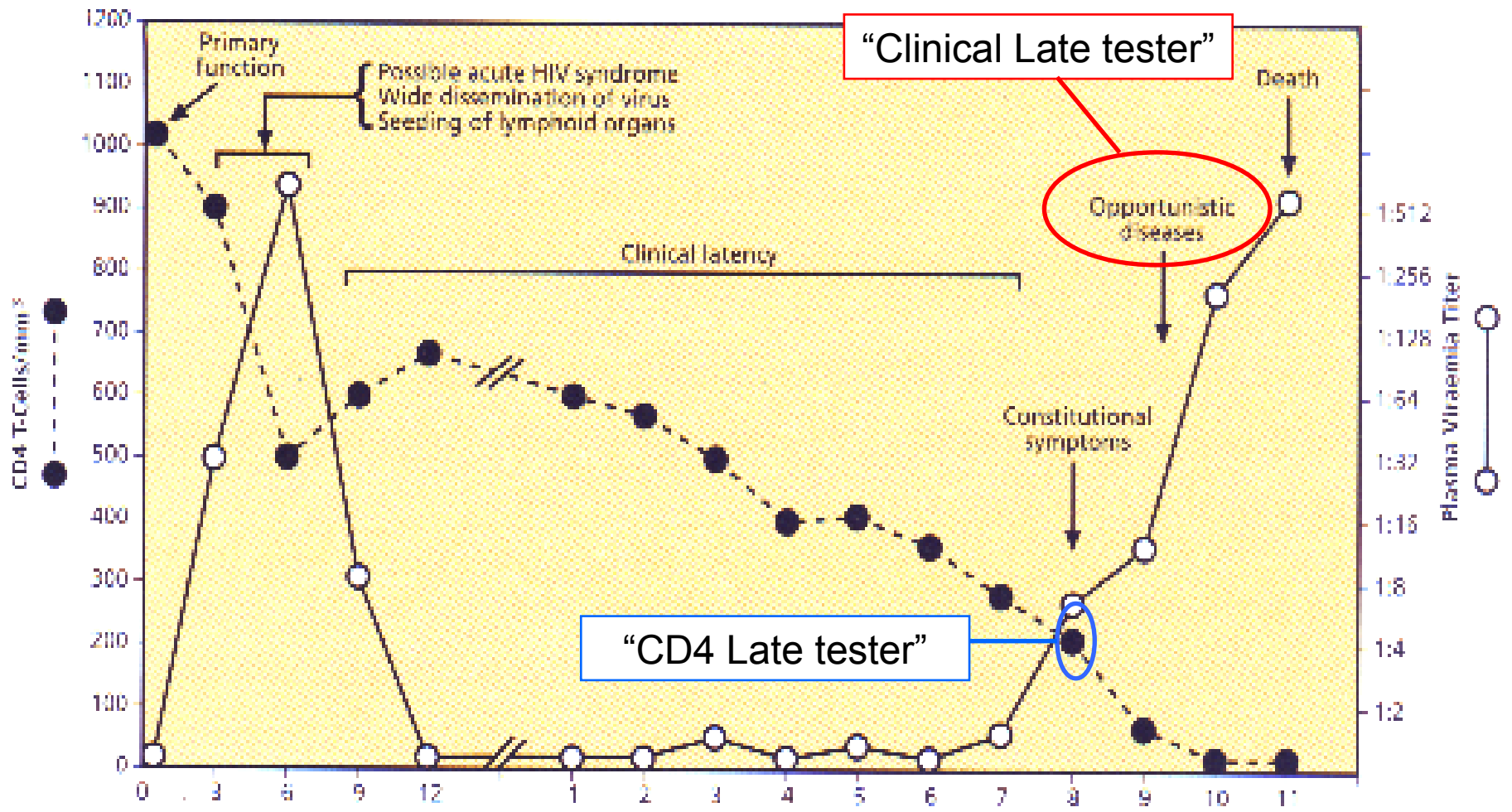
“CD4 Late tester”

- Initial CD4+ count of less than 200 cells per µlitre
 - The same as is diagnostic for AIDS in US
- Only collected since 2005

“Clinical and/or CD4 Late tester”

- Either criterion

Figure 9: The Phases of HIV Infection and the immune response



Method

- Used HIV and AIDS information held by AEG
- HIV diagnoses 1996-2007 among adults diagnosed through antibody testing
 - assumed tested in middle of month diagnosed
- AIDS diagnosis based on clinical criteria to end of June 2008
 - Possibility of delayed recognition/reporting of AIDS
- HIV forms read for evidence of AIDS and if present clinician contacted
- Information as provided by clinician

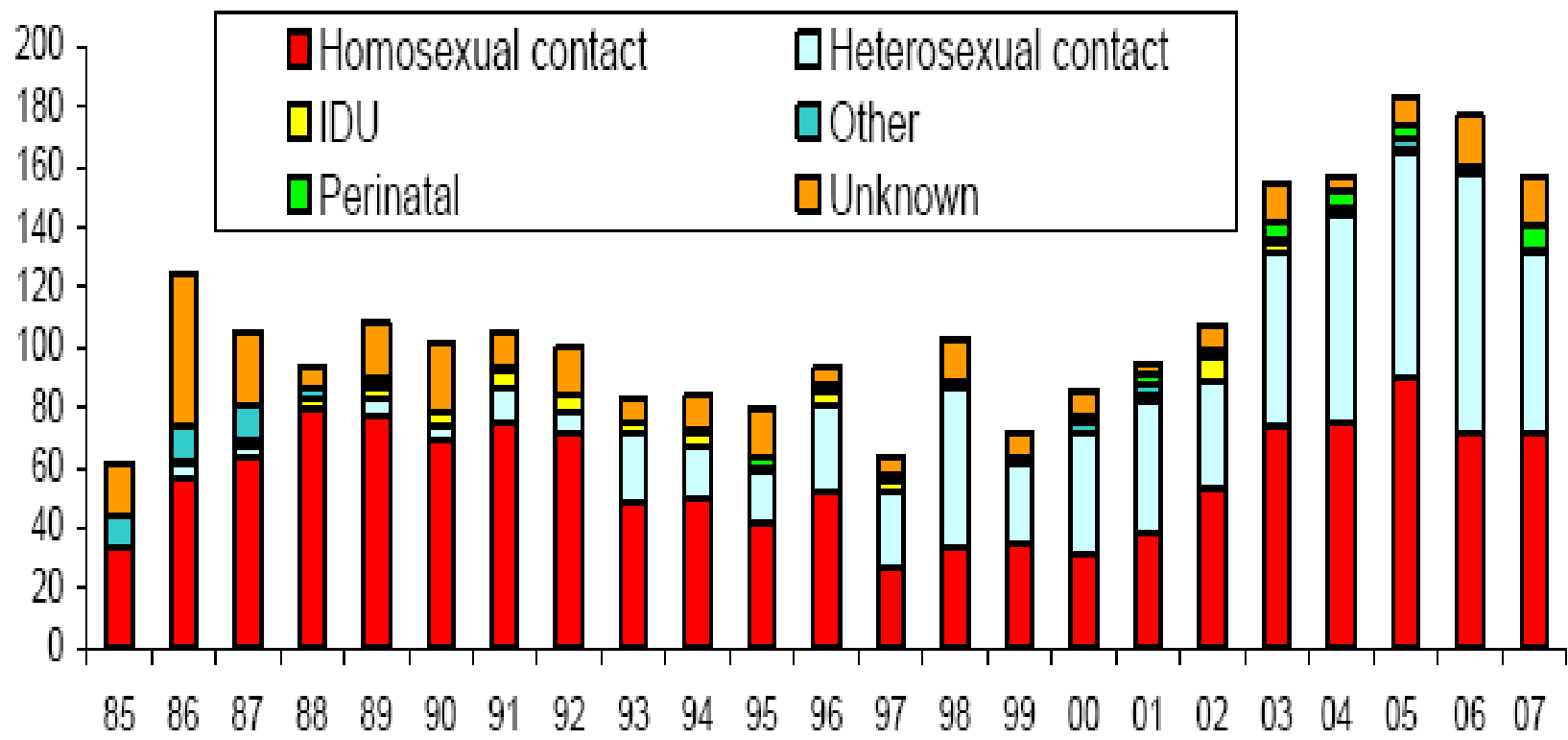


Figure 1 Number of people diagnosed with HIV in New Zealand through antibody testing by year of diagnosis* and means of infection. (* Infection might have occurred some time before diagnosis.)

¹ Viral load testing has been available in New Zealand since 1996. Only the trends in those diagnosed through antibody testing have been analysed as this has been available for the whole period.

I will present preliminary results...

1996-2007 (N=1407)

- “Clinical Late testers”
 - Means of infection
 - Age, Ethnicity, Year

2005-2007 (N=502)

- “Clinical and/or CD4 Late tester”
 - Means of infection

Some International comparisons

“Clinical Late testers”

1996-2007	N	“Clinical Late testers”	
		n	%
Overall	1407	207	14.7%

“Clinical Late testers”

1996-2007	N	“Clinical Late testers”	
		n	%
Overall	1407	207	14.7%

MSM	652	93	14.1%
Heterosexual	629	93	14.8%
Other	13	6	46.2%
Unknown	113	15	14.7%

Look at “Age, Ethnicity, and Year” among MSM and heterosexual men and women

MSM - “Clinical Late testers”

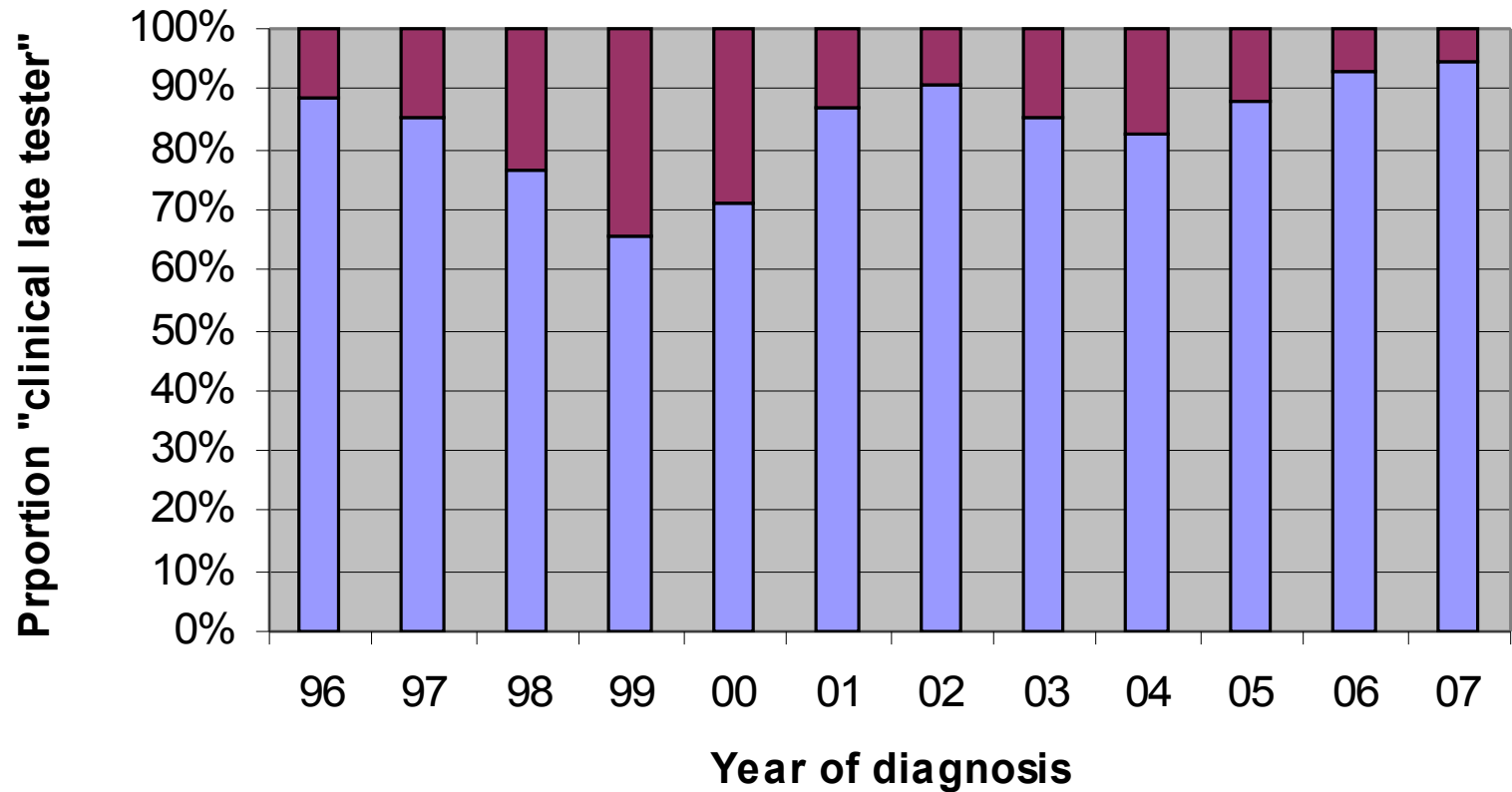
			“Clinical Late testers”		
		N	n	%	P-value
Ethnicity	European	482	66	13.7	<0.05
	Maori	76	9	11.8	
	Pacific	19	8	42.1	
	Other	74	9	12.2	

MSM - “Clinical Late testers”

1996-2007		N	“Clinical Late testers”		P-value
			n	%	
Ethnicity	European	482	66	13.7	<0.05
	Maori	76	9	11.8	
	Pacific	19	8	42.1	
	Other	74	9	12.2	

Age	<30	135	13	9.6	<0.001
	30-39	254	20	7.9	
	40+	263	59	22.4	

MSM - "Clinical Late testers" 1996-2007

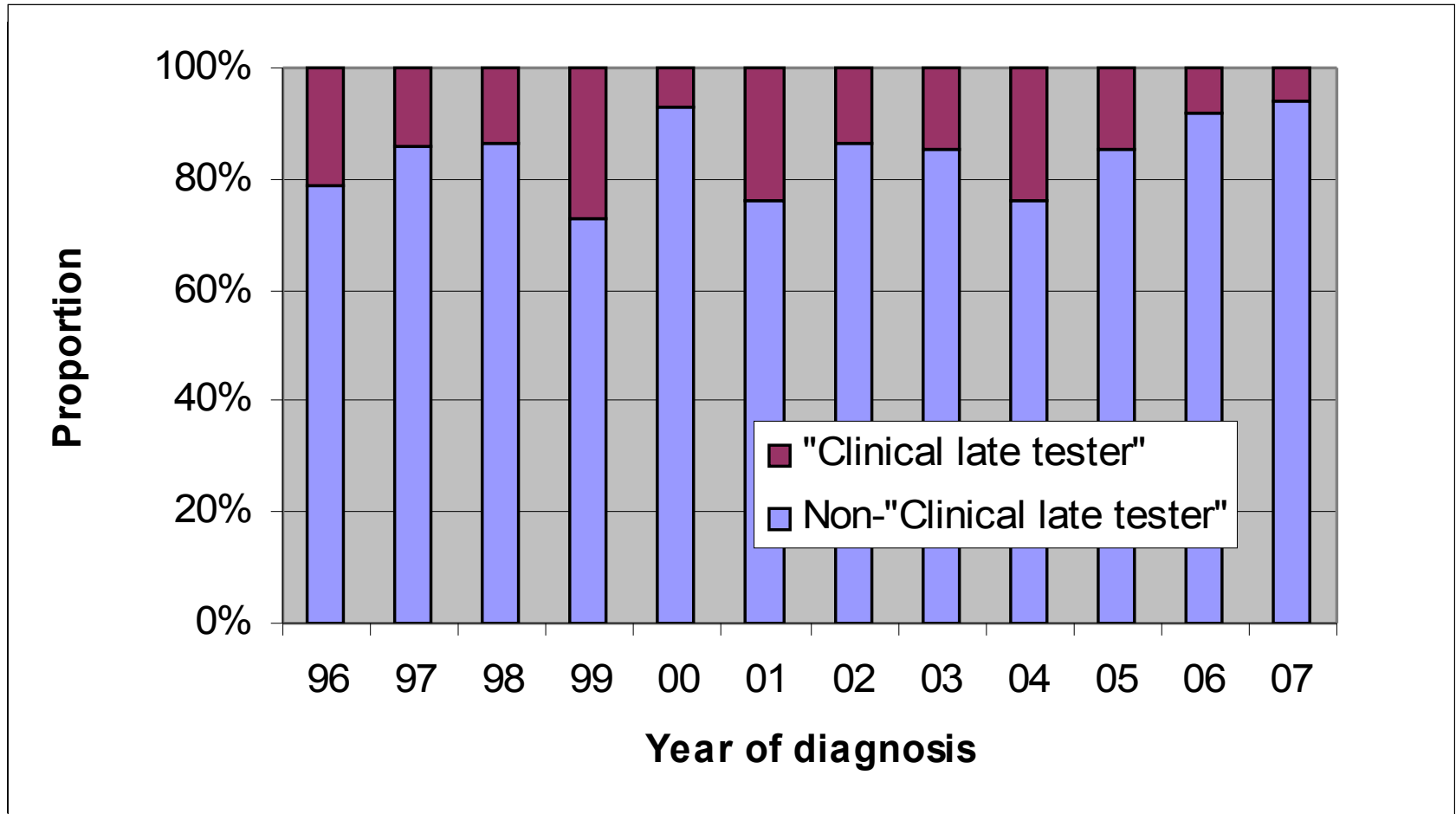


“Clinical Late testers” among heterosexual men and women

		“Clinical Late testers”		
	N	n	%	P-value
Overall	629	93	14.8	

Men	334	56	16.8	>0.10
Women	295	37	12.5	

Heterosexual "Clinical late testers"



Heterosexual - “Clinical Late testers”

				“Clinical Late testers”		
		N	n	%	P-value	
Ethnicity	European	33	5	13.2	>0.10	
	Maori	7	3	30.0		
	Pacific	7	1	12.5		
<p><i>Needs further analysis to take into account immigration assessment and look at men and women separately</i></p>			13	9.7		
			2	4.5	>0.10	
			30-39	107	10	9.3
	40+	76	10	13.2		

Country of infection	NZ	37	5	13.5	>0.10	
	Overseas	179	16	8.9		

“CD4 Late testers” (<200 per μL)

- 502 people diagnosed with HIV by antibody testing 2005-7
 - “Clinical late testers” = 9.4%
- CD4+ counts available for 380 (75.7%)
 - Proportion “Clinical late testers” the same for those with (9.2%) and without (9.8%) CD4 count
 - only 2/47 “Clinical late testers” had CD4 >200

“Clinical and/or CD4 Late testers” – 2005-7

	“Clinical and/or CD4 Late testers”		
	N	n	%
Overall	380	118	31%

“Clinical and/or CD4 Late testers” – 2005-7

	“Clinical and/or CD4 Late testers”			“Clinical testers”		
	N	n	%	N	n	%
Overall	380	118	31%	502	47	9%

“Clinical and/or CD4 Late testers” – 2005-7

	“Clinical and/or CD4 Late testers”			“Clinical testers”		
	N	n	%	N	n	%
Overall	380	118	31%	502	47	9%

MSM	186	46	25%
Hetero	178	64	36%
Men	85	36	42%
Women	93	28	30%
Other	3	2	67%
Unknown	13	6	46%

“Clinical and/or CD4 Late testers” – 2005-7

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MSM	186	46	25%	233	19	8%
Hetero	178	64	36%	227	22	10%
Men	85	36	42%	114	12	11%
Women	93	28	30%	113	10	9%
Other	3	2	67%	4	0	0%
Unknown	13	6	46%	32	6	16%

Using CD4 count a more sensitive measure of immune depression than clinical AIDS and may be more useful

Some international comparisons

Country	Source	Year	CD4<200 (+/- clinical late)		
			Overall	MSM	Hetero
NZ†	National surveillance	2005-7	31.1%	24.7%	36.0%

† CD4<200+clinical late

*CD4<200

Some international comparisons

Country	Source	Year	CD4<200 (+/- clinical late)		
			Overall	MSM	Hetero
NZ†	National surveillance	2005-7	31.1%	24.7%	36.0%
France†	6 tertiary centers	2004-5	31.5%	Hetero>MSM	

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UK and Ireland*	Info. from providers (76% RR)	2006	33%	20%	M 43% F 36%
Australia†	National surveillance	2000-6	Est 25%	19.5%	Est. 39%

† CD4<200+clinical late

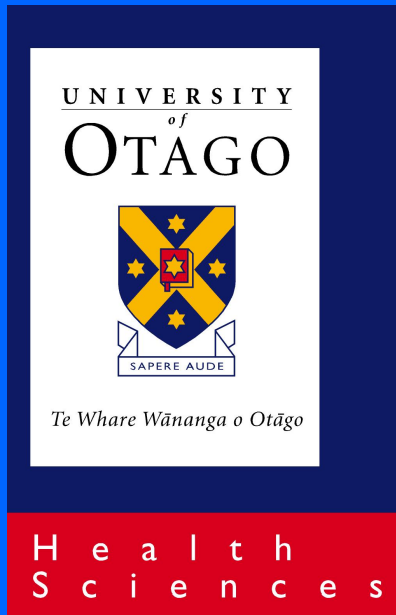
*CD4<200

Summary/conclusions

- Possible to obtain an indication of late diagnosis from surveillance data
- CD4 count might be more useful as
 - Not dependant on notifying AIDS
 - Uses a more sensitive measure of immune depression and hence maybe more discriminatory
 - Allows more international comparison
 - While CD4 not universally provided is probably obtained and just needs to be accessed!

- Maybe less “Late diagnosis” over last 2 year
 - But beware of late notification of AIDS
 - If true could reflect more testing
 - ...some of which may be for immigration
- Among MSM - older and Pacific men appear to be being tested “late” but need larger number to explore using CD4 counts
- During 2005/7 using criteria that used CD4 count suggested more heterosexual men were being diagnosed late that was not recognised using clinical criteria alone
- Need to examine data further taking into account reasons for testing such as immigration medical

Acknowledge



- The AIDS Epidemiology Group is funded by Ministry of Health
- Laboratories and clinicians who provide data