

Overview of the Report

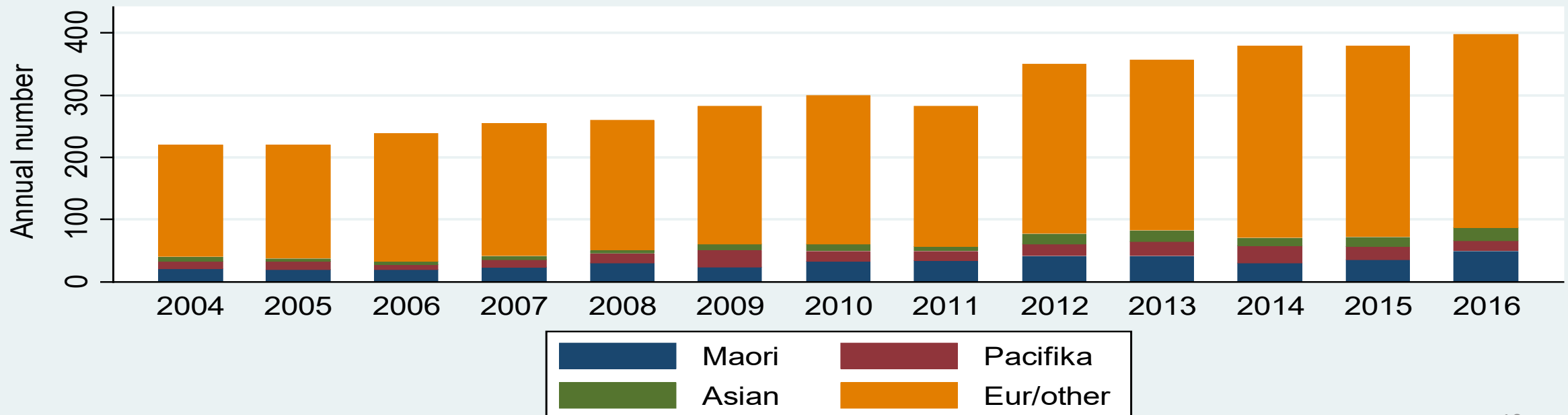
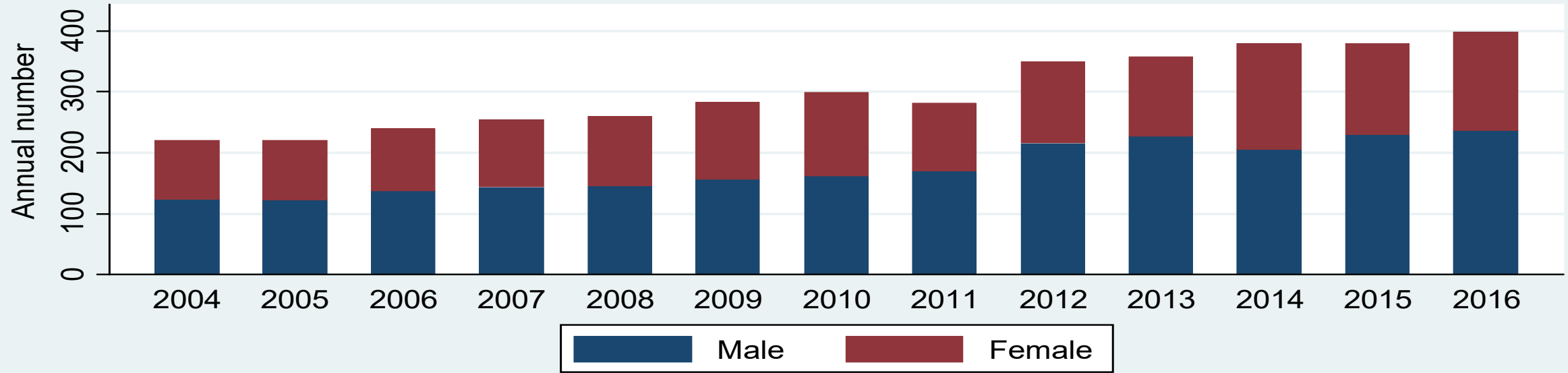
Assoc Professor Richard Milne



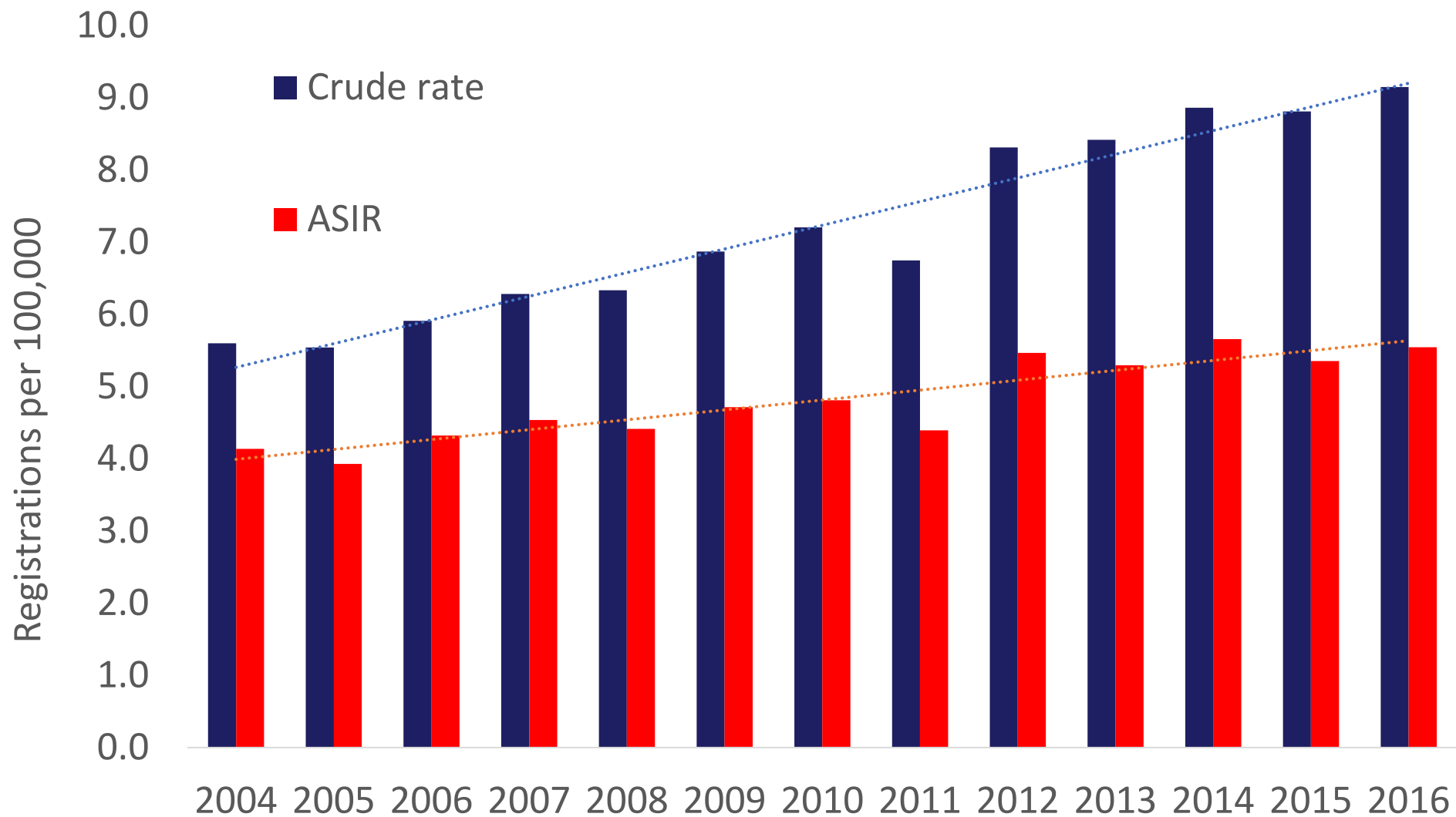
Aims

- To describe the human and financial burden, treatment and outcomes of myeloma in NZ
- To make policy recommendations accordingly

Myeloma annual registrations



Crude and age standardised incidence rates

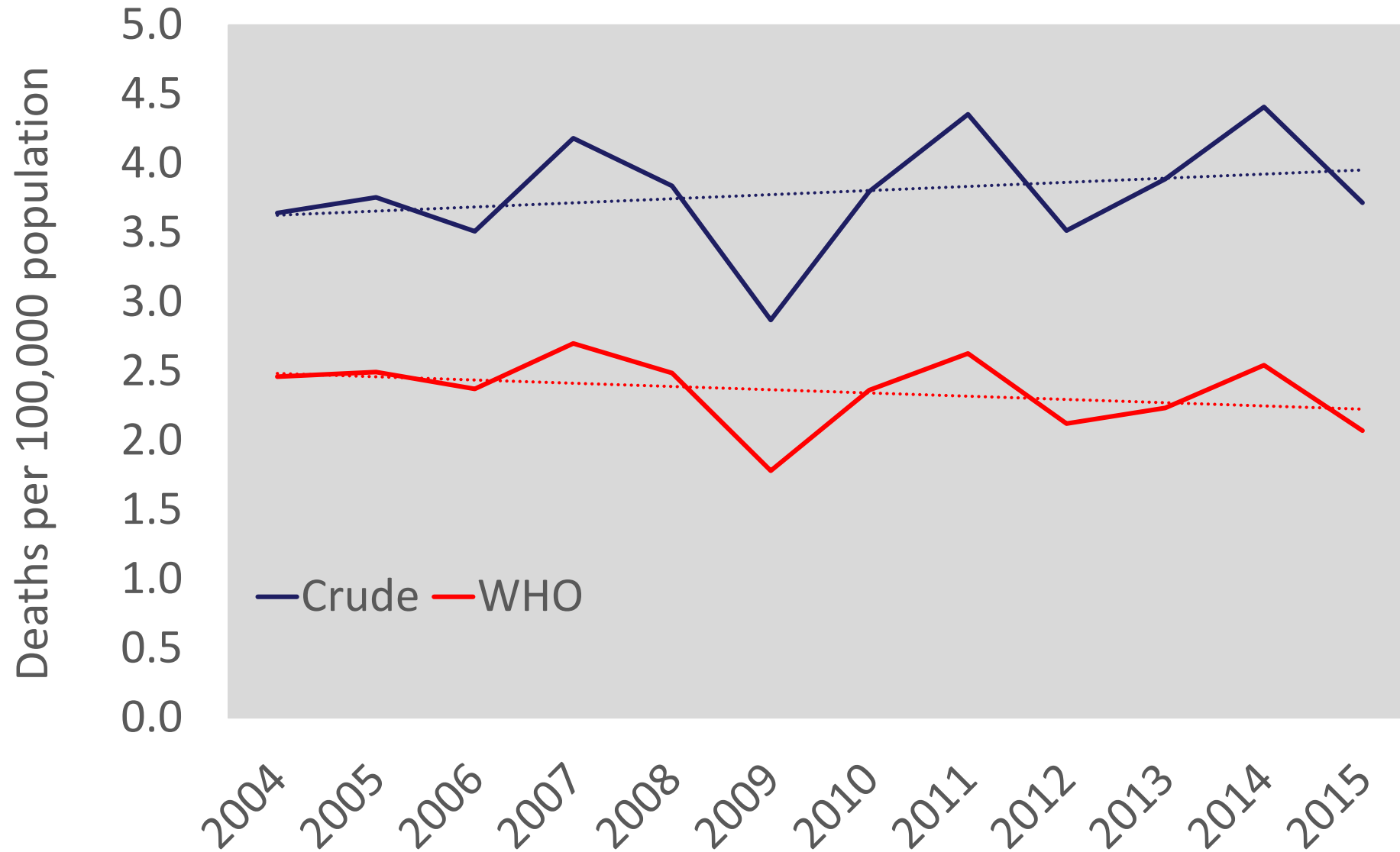


Myeloma registrations in 2012-2016

	Māori	Pasifika	Asian	Eur/Other	Total
<i>Total</i>					
Registrations	194	111	81	1478	1864
Crude incidence rate*	5.53	7.59	2.93	9.86	8.20
Age std incidence*	7.19	10.13	3.51	5.05	5.19

*Registrations per 100,000 population

Mortality (ICD10 C90)

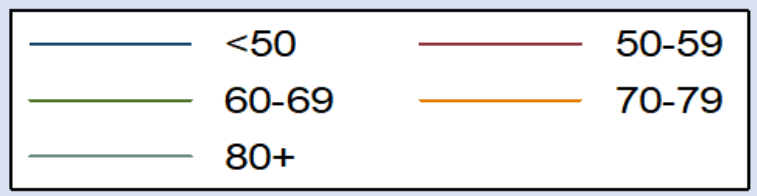
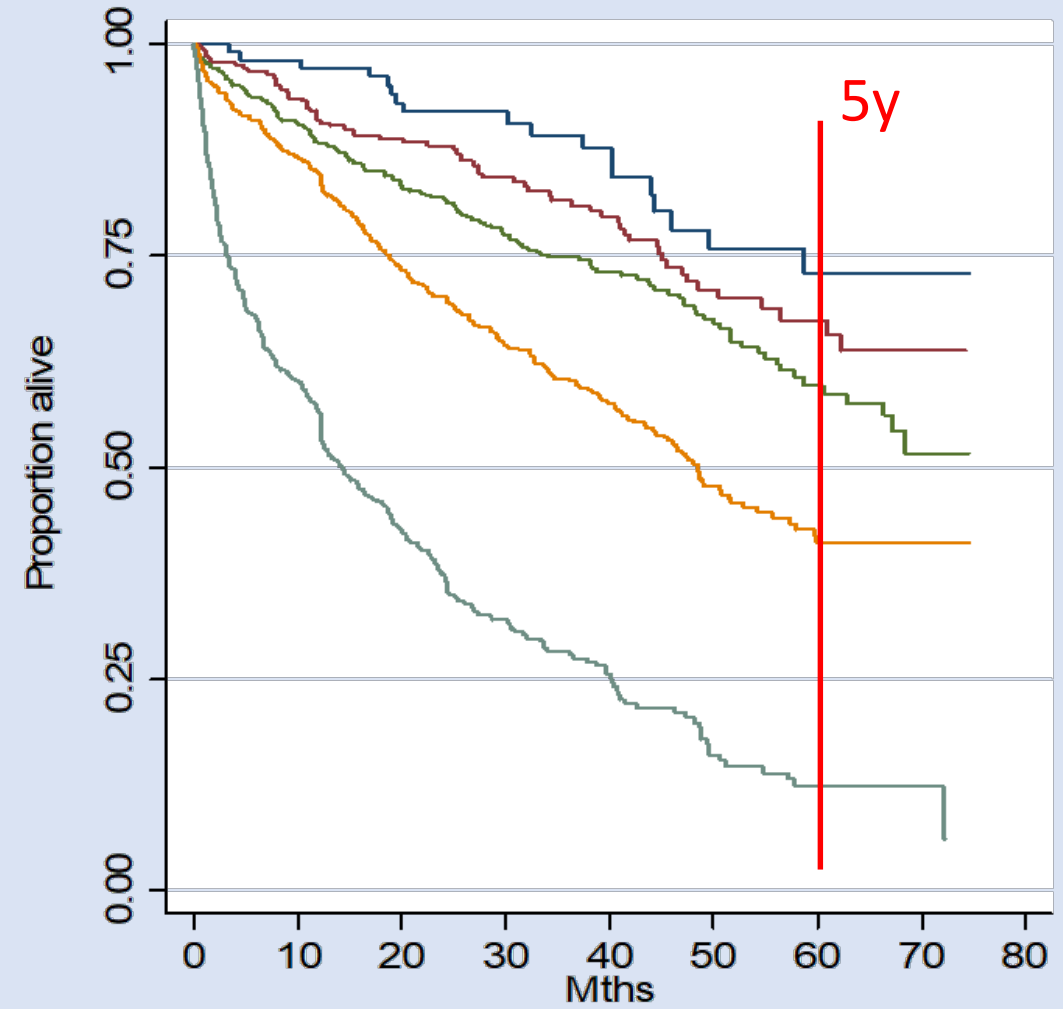


Prevalence (how many survivors today?)

	Female			Male			Total
	New cases	Deaths	Survivors	New cases	Deaths	Survivors	Survivors
1990-2018	3312	2314	998	4719	3253	1466	2463
Prevalence*	40.3			70.3			54.0

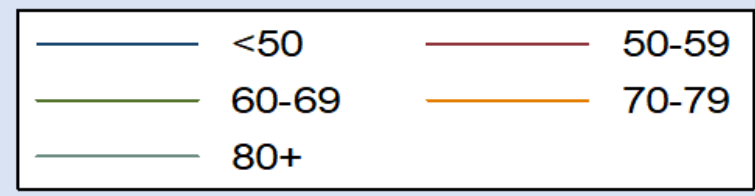
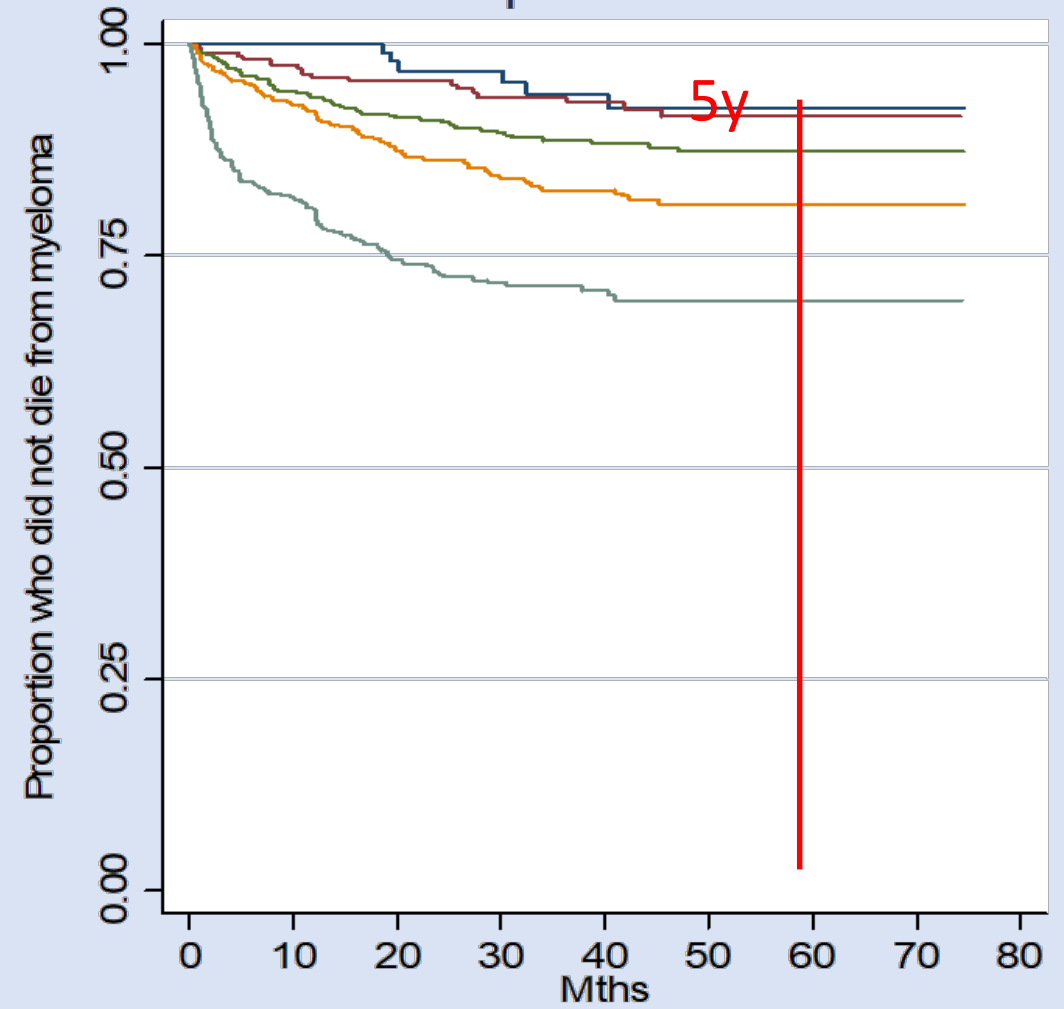
*Per 100,000 population

Overall survival

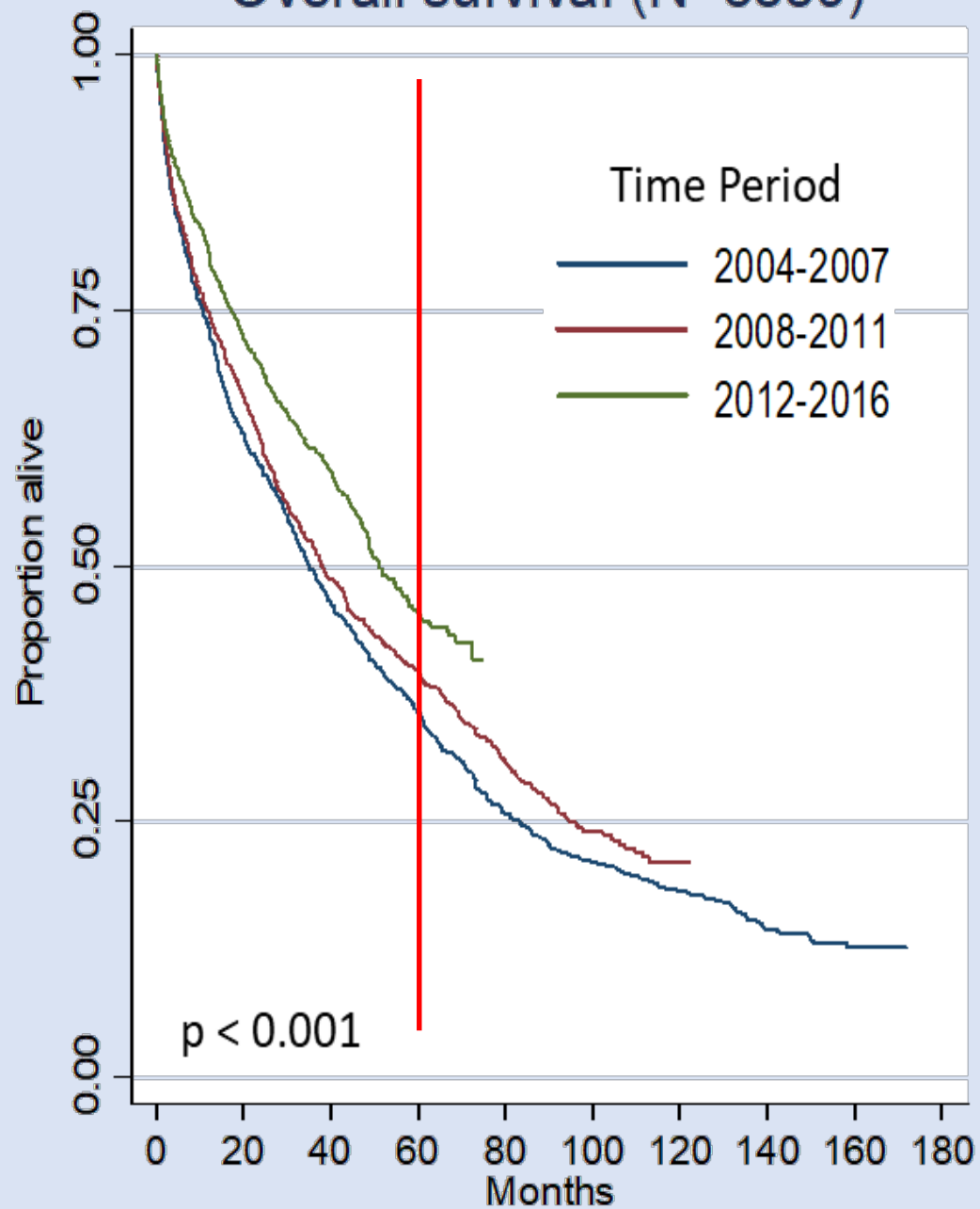


2012-2016

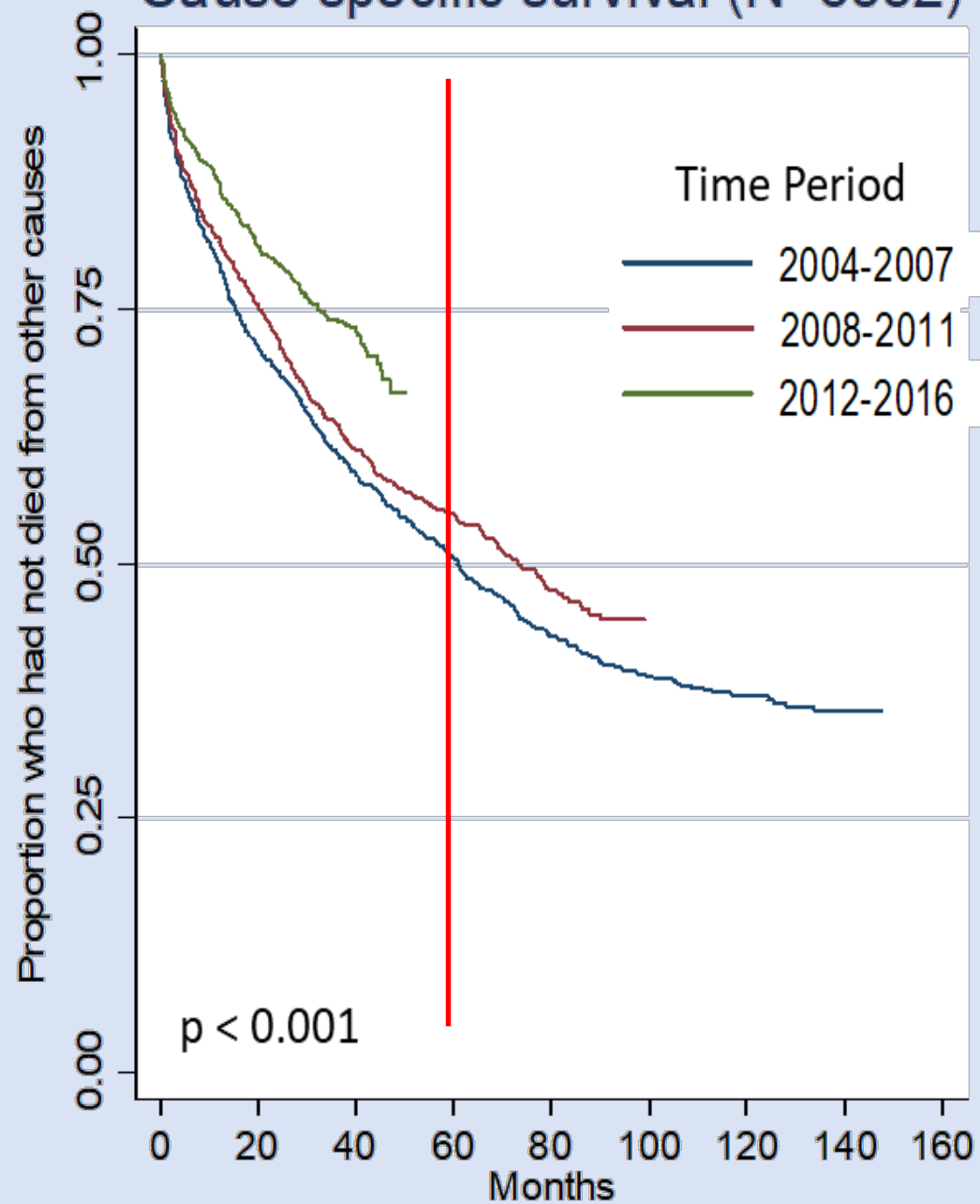
Cause specific survival



Overall survival (N=3859)

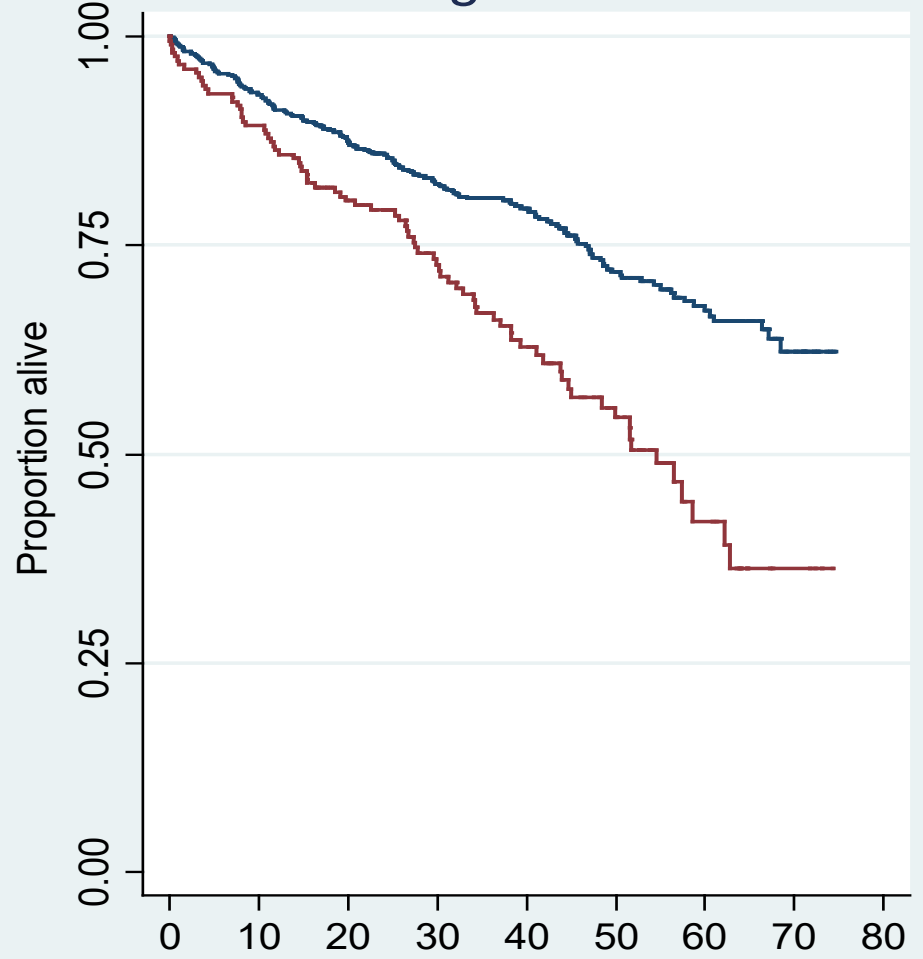


Cause specific survival (N=3552)



2012-2016

Age ≤ 70

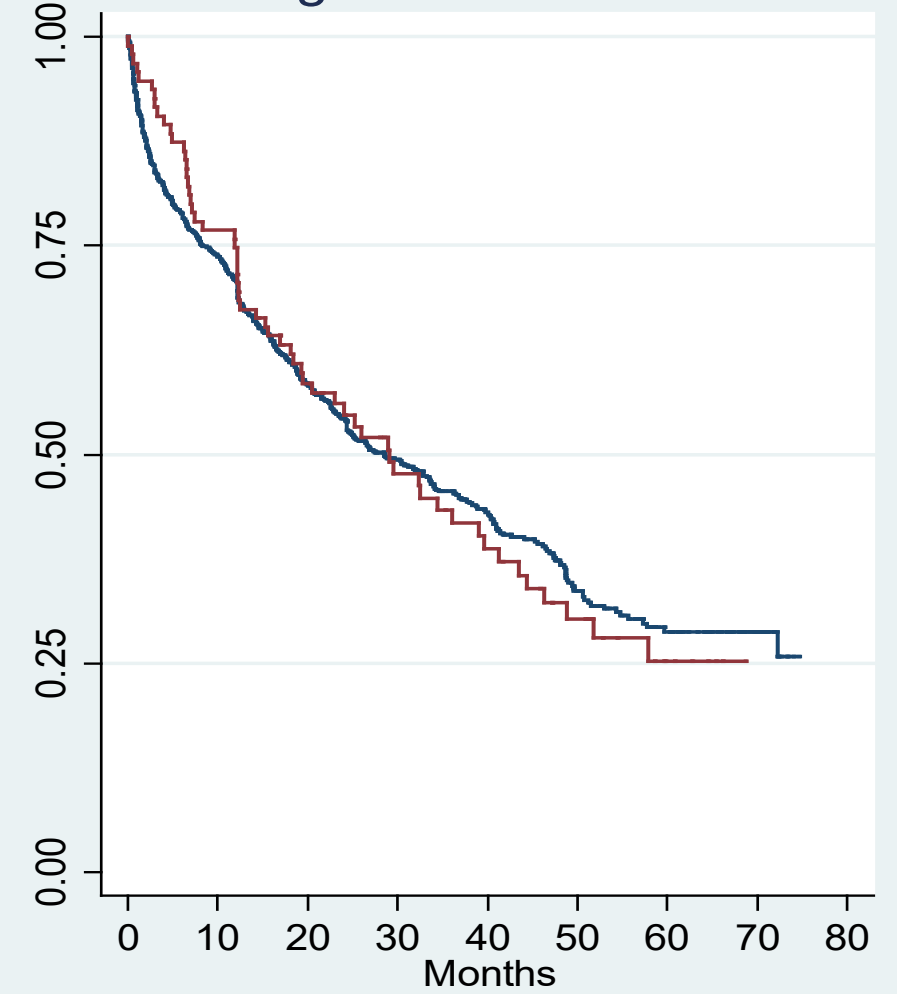


Number at risk

MP = 0723	570	319	113
MP = 1206	147	71	17



Age > 70



Number at risk

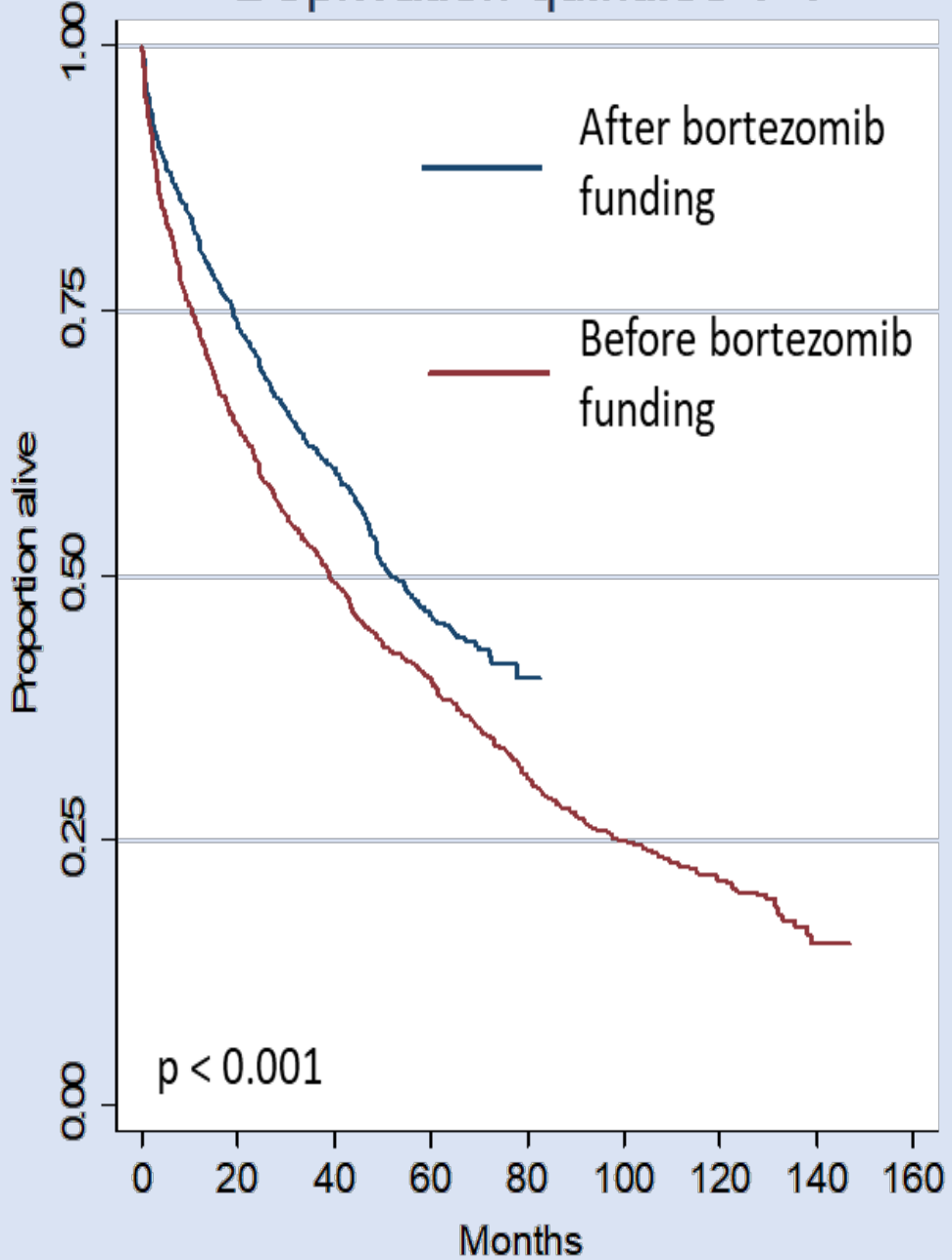
MP = 0815	419	194	51
MP = 1 95	51	25	6



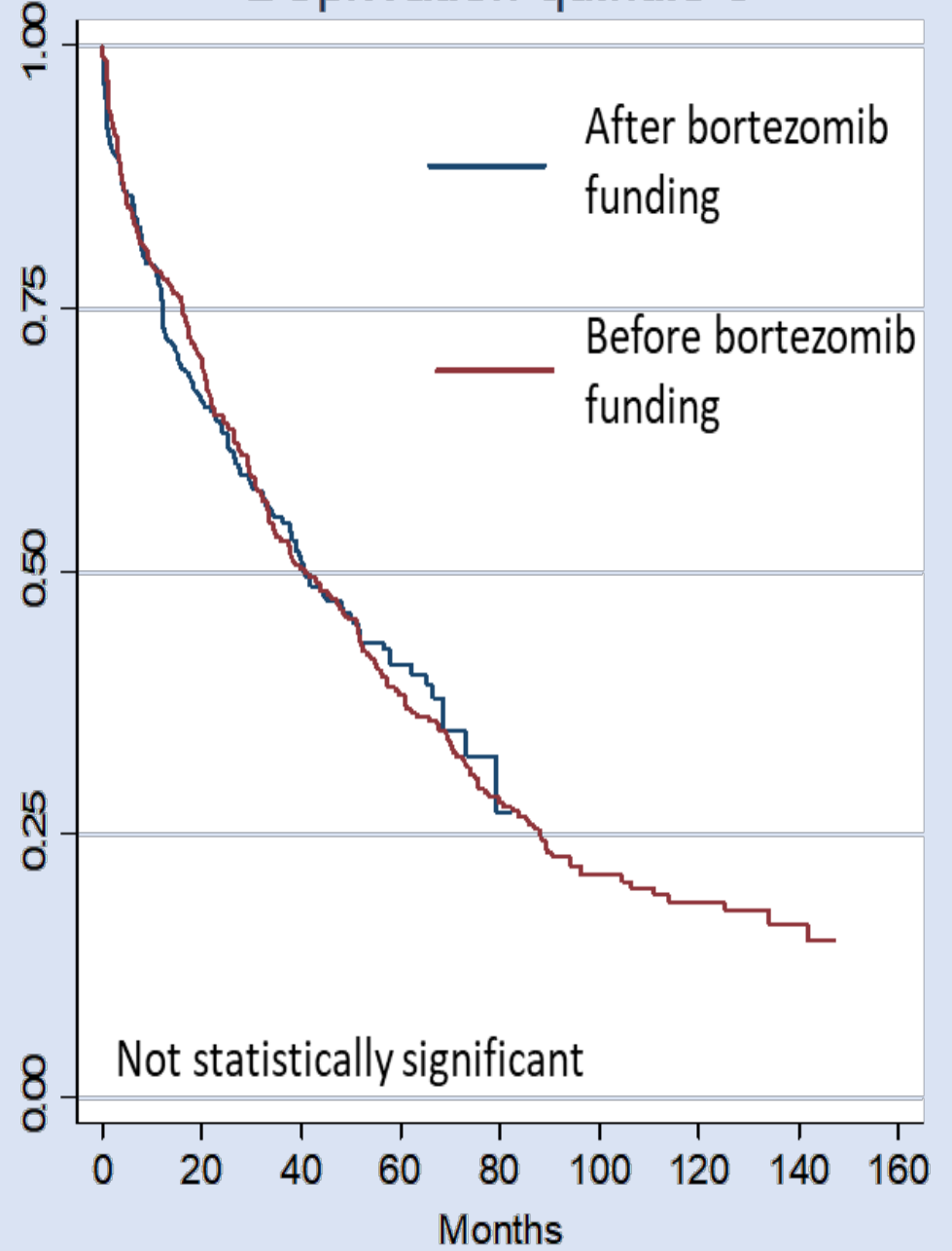
NZDep 2013	No. patients	Survival 2012-2016			
		12 months	36 months	60 months	Median (mths)
1-2	344	85.5%	67.7%	50.0%	60.9
3-4	339	83.8%	66.9%	48.7%	56.1
5-6	347	80.1%	58.9%	41.1%	49.5
7-8	435	78.6%	58.7%	45.5%	48.5
9-10	374	76.7%	57.4%	40.5%	43.8
Overall	1839	80.8%	60.6%	45.2%	50.7

2006-2016

Deprivation quintiles 1-4



Deprivation quintile 5



Costs of myeloma to the healthcare system in 2016

	Patients		General population		Disparity	
	Items	Cost (\$m)	Items	Cost (\$m)	Items	Cost (\$m)
Admissions	3,804	\$14.86	775	\$4.21	3,029	\$10.65
Outpatient	18,255	\$5.16	2673	\$0.76	15,582	\$4.41
Emergencies	1,107	\$0.40	271	\$0.10	836	\$0.30
Laboratories	99,528	\$0.87	20,481	\$0.20	79,047	\$0.66
Medicines	138,375	\$31.07	61,905	\$0.81	76,470	\$30.27
Total	261,069	\$52.35	86,106	\$6.07	174,963	\$46.28

Mean pre tax **income** in 2016 (\$NZ)

	Myeloma Cohort			General Population			Disparity		
Age group	Male	Female	Total	Male	Female	Total	Male	Female	Total
35-49	\$47,489	\$30,471	\$40,556	\$67,397	\$44,915	\$56,124	\$19,909	\$14,444	\$15,568
50-54	\$62,116	\$37,279	\$52,181	\$68,595	\$45,753	\$57,721	\$6,479	\$8,474	\$5,540
55-59	\$44,713	\$33,561	\$40,996	\$65,135	\$43,254	\$54,856	\$20,423	\$9,693	\$13,860
60-64	\$47,407	\$25,276	\$38,620	\$57,345	\$37,853	\$48,256	\$9,937	\$12,577	\$9,636
65+	\$21,276	\$20,203	\$20,821	\$28,066	\$24,137	\$26,880	\$6,789	\$3,934	\$6,059
Overall	\$28,913	\$22,809	\$26,452	\$46,601	\$39,563	\$41,079	\$9,159	\$6,022	\$7,871

Income **tax** by age and sex in 2016 (\$NZm)

	Myeloma cohort			General population			Disparity		
Age group	Male	Female	Total	Male	Female	Total	Male	Female	Total
35-49	\$0.472	\$0.155	\$0.627	\$0.710	\$0.282	\$0.992	-\$0.238	-\$0.127	-\$0.365
50-54	\$0.899	\$0.267	\$1.166	\$0.964	\$0.365	\$1.329	-\$0.065	-\$0.098	-\$0.163
55-59	\$1.063	\$0.332	\$1.394	\$1.634	\$0.460	\$2.095	-\$0.572	-\$0.129	-\$0.700
60-64	\$1.228	\$0.315	\$1.542	\$1.504	\$0.552	\$2.056	-\$0.276	-\$0.238	-\$0.514
65+	\$2.255	\$1.467	\$3.722	\$3.412	\$1.883	\$5.295	-\$1.157	-\$0.416	-\$1.573
Total	\$5.916	\$2.536	\$8.452	\$8.224	\$3.543	\$11.767	-\$2.308	-\$1.008	-\$3.316

Summary: Epidemiology

- Incidence of myeloma is increasing
 - independent of aging population
- Almost 1000 women and 1500 NZ men have myeloma today
- Mortality is stable
- Survival is improving
- Survival varies by age, ethnicity, deprivation & treatment
- Step improvement in survival since bortezomib was funded
- BUT many excellent medicines are not yet funded in NZ

Summary: Costs in 2016

- High healthcare costs for myeloma patients compared to age/sex matched general population (\$46m)
- Income disparity of \$4,000-\$20,000 compared to the general population
- Loss of income tax revenue by Govt (\$3.3m)