



Australia &
New Zealand Dialysis
& Transplant Registry

Chapter 2

Prevalence of End Stage Kidney Disease

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Renal Replacement Therapy

Table 2.1 shows the prevalence (pmp) of renal replacement therapy in Australia and New Zealand over the last 20 years. The prevalence of both dialysis and transplantation continue to grow in both countries,

although the growth in dialysis prevalence in Australia has slowed in recent years. Table 2.2 shows the same data for the last 5 years, but with dialysis modality categorised.

Table 2.1. Prevalence (pmp) of Renal Replacement Therapy 1995-2014

Year	Australia			New Zealand		
	Dialysis	Transplant	Total	Dialysis	Transplant	Total
1995	4518 (251)	4272 (237)	8790 (488)	850 (232)	781 (213)	1631 (445)
1996	4882 (268)	4485 (246)	9367 (514)	934 (251)	821 (221)	1755 (471)
1997	5190 (282)	4742 (257)	9932 (539)	1017 (270)	877 (232)	1894 (502)
1998	5536 (298)	4972 (267)	10508 (565)	1126 (296)	930 (244)	2056 (540)
1999	6019 (320)	5143 (273)	11162 (593)	1230 (322)	977 (255)	2207 (577)
2000	6409 (337)	5349 (281)	11758 (618)	1331 (346)	1019 (265)	2350 (611)
2001	6851 (355)	5571 (289)	12422 (644)	1462 (378)	1059 (274)	2521 (652)
2002	7264 (373)	5854 (300)	13118 (673)	1594 (405)	1113 (283)	2707 (688)
2003	7720 (391)	6086 (309)	13806 (700)	1711 (426)	1164 (290)	2875 (716)
2004	8005 (402)	6391 (321)	14396 (722)	1774 (435)	1219 (299)	2993 (735)
2005	8641 (428)	6654 (330)	15295 (758)	1878 (456)	1243 (302)	3121 (757)
2006	9264 (453)	6984 (341)	16248 (794)	1997 (479)	1258 (302)	3255 (780)
2007	9734 (467)	7254 (348)	16988 (816)	2071 (492)	1302 (309)	3373 (801)
2008	10178 (479)	7659 (360)	17837 (839)	2106 (496)	1353 (319)	3459 (815)
2009	10475 (483)	8049 (371)	18524 (854)	2281 (532)	1405 (328)	3686 (860)
2010	10727 (487)	8505 (386)	19232 (873)	2388 (551)	1443 (333)	3831 (884)
2011	11071 (496)	8863 (397)	19934 (892)	2392 (548)	1484 (340)	3876 (887)
2012	11504 (506)	9265 (408)	20769 (914)	2467 (562)	1525 (347)	3992 (909)
2013	11777 (509)	9668 (418)	21445 (927)	2589 (585)	1574 (356)	4163 (941)
2014	12091 (515)	10143 (432)	22234 (947)	2678 (596)	1628 (362)	4306 (959)

Table 2.2. Prevalence (pmp) of Renal Replacement Therapy by Modality 2010-2014

Country	Patients	2010	2011	2012	2013	2014
Australia	Total	19232 (873)	19934 (892)	20769 (914)	21445 (927)	22234 (947)
	Transplant	8505 (386)	8863 (397)	9265 (408)	9668 (418)	10143 (432)
	Dialysis	10727 (487)	11071 (496)	11504 (506)	11777 (509)	12091 (515)
	- Proportion home	29%	28%	29%	29%	30%
	- Proportion satellite HD	50%	50%	49%	49%	47%
	- Proportion PD	19%	19%	20%	20%	20%
New Zealand	Total	3831 (884)	3876 (887)	3992 (909)	4163 (941)	4306 (959)
	Transplant	1443 (333)	1484 (340)	1525 (347)	1574 (356)	1628 (362)
	Dialysis	2388 (551)	2392 (548)	2467 (562)	2589 (585)	2678 (596)
	- Proportion home	53%	51%	51%	51%	49%
	- Proportion satellite HD	17%	15%	15%	14%	16%
	- Proportion PD	35%	33%	31%	32%	31%

Table 2.3 and figures 2.1-2.2 show the 2014 prevalence (pmp) of RRT by age groups. In both countries the modal age group was 55-64. The prevalence in the 75-

84 and 85+ age groups was substantially higher in Australia than in New Zealand.

Table 2.3. Prevalence (pmp) of Renal Replacement Therapy by Age 2014

Age	Australia	New Zealand
0-4	36 (24)	4 (13)
5-14	167 (58)	35 (58)
15-24	471 (151)	116 (181)
25-34	1116 (322)	276 (485)
35-44	2461 (762)	460 (784)
45-54	4189 (1350)	925 (1471)
55-64	5325 (1980)	1179 (2247)
65-74	4869 (2511)	956 (2540)
75-84	3031 (2859)	320 (1630)
85+	569 (1246)	35 (588)

Figure 2.1.1

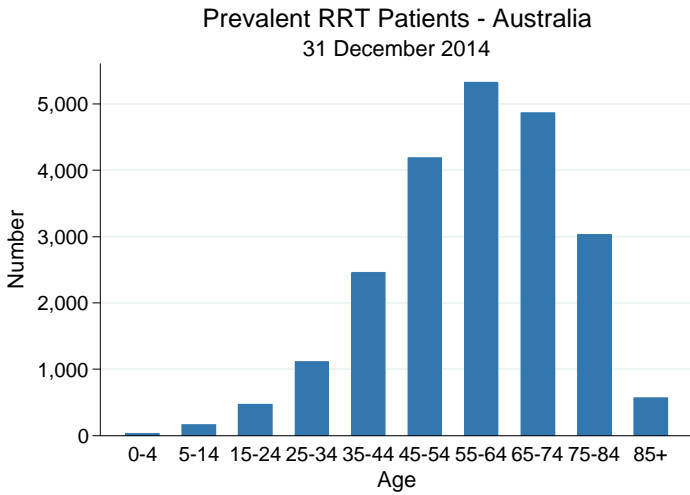


Figure 2.1.2

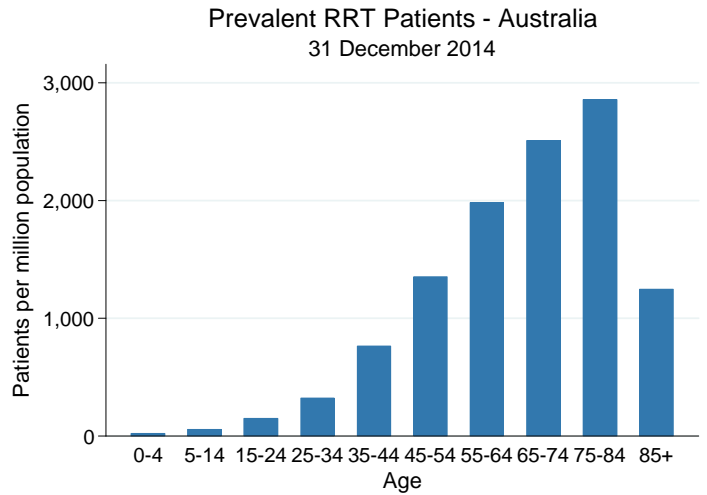


Figure 2.2.1

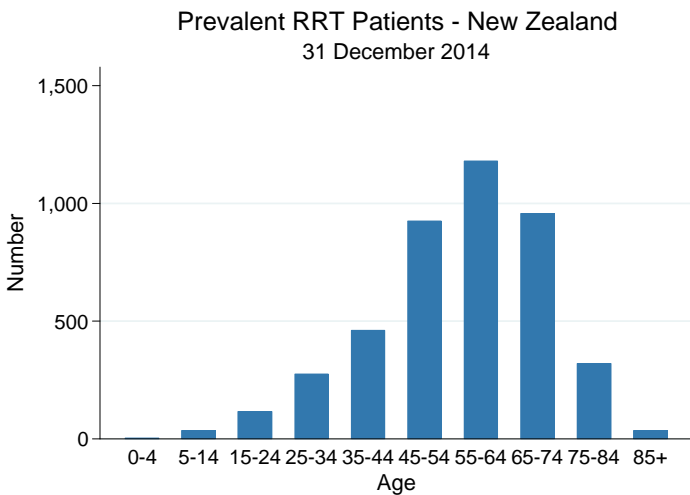


Figure 2.2.2

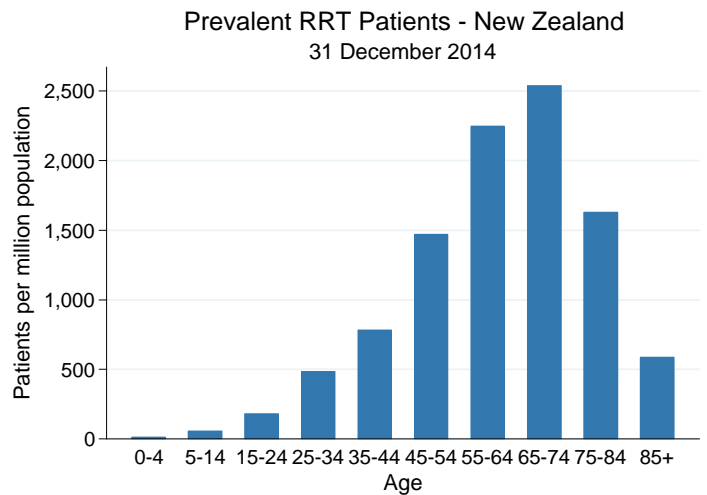


Table 2.4 shows the prevalence (pmp) of RRT by state over 2010-2014. In Australia at the end of 2014 the Northern Territory had the highest prevalence of dialysis

patients and South Australia the lowest; the ACT had the highest prevalence of transplant patients and Western Australia the lowest.

Table 2.4. Prevalence (pmp) of Renal Replacement Therapy by State 2010-2014

Modality	State	2010	2011	2012	2013	2014
Dialysis	QLD	2007 (456)	2022 (452)	2100 (460)	2212 (476)	2262 (479)
	NSW	3509 (491)	3594 (498)	3740 (512)	3770 (509)	3825 (509)
	ACT	245 (677)	264 (717)	267 (712)	287 (753)	281 (728)
	VIC	2619 (480)	2708 (489)	2808 (499)	2907 (507)	2978 (510)
	TAS	192 (377)	205 (401)	216 (422)	216 (421)	227 (441)
	SA	679 (417)	716 (437)	738 (446)	751 (450)	742 (440)
	NT	441 (1919)	463 (2002)	499 (2115)	517 (2132)	557 (2273)
	WA	1035 (452)	1099 (467)	1136 (466)	1117 (443)	1219 (474)
	Aust	10727 (487)	11071 (496)	11504 (506)	11777 (509)	12091 (515)
	NZ	2388 (551)	2392 (548)	2467 (562)	2589 (585)	2678 (596)
Transplant	QLD	1651 (375)	1718 (384)	1799 (394)	1871 (402)	1931 (409)
	NSW	2422 (339)	2494 (345)	2584 (354)	2691 (363)	2849 (379)
	ACT	213 (589)	218 (592)	236 (629)	238 (624)	241 (624)
	VIC	2218 (406)	2363 (427)	2496 (443)	2649 (462)	2858 (489)
	TAS	207 (407)	221 (432)	228 (445)	225 (439)	222 (431)
	SA	906 (557)	920 (561)	950 (574)	966 (578)	979 (581)
	NT	69 (300)	69 (298)	82 (348)	87 (359)	97 (396)
	WA	819 (358)	860 (365)	890 (365)	941 (374)	966 (375)
	Aust	8505 (386)	8863 (397)	9265 (408)	9668 (418)	10143 (432)
	NZ	1443 (333)	1484 (340)	1525 (347)	1574 (356)	1628 (362)

Table 2.5 shows the same data by race. A substantial number of Māori and Pacific Peoples were receiving RRT in Australia, but there were no Aboriginal/Torres

Strait Islander patients receiving RRT in New Zealand during 2010-2014.

Table 2.5. Prevalence of Renal Replacement Therapy by Race 2010-2014

Country	Race	Modality	2010	2011	2012	2013	2014
Australia	Caucasian	Dialysis	7954	8121	8263	8321	8297
		Transplant	7358	7609	7905	8168	8490
	Aboriginal/TSI	Dialysis	1216	1310	1421	1472	1551
		Transplant	178	191	192	205	221
	Asian	Dialysis	1029	1059	1140	1182	1219
		Transplant	746	816	872	943	1017
	Māori	Dialysis	106	104	116	118	131
		Transplant	31	42	49	55	57
	Pacific	Dialysis	237	262	296	314	340
		Transplant	67	70	76	87	97
	Other	Dialysis	181	204	239	333	459
		Transplant	122	131	154	184	211
	Not reported	Dialysis	4	11	29	37	94
		Transplant	3	4	17	26	50
New Zealand	Caucasian	Dialysis	873	865	862	848	849
		Transplant	1108	1127	1152	1191	1210
	Aboriginal/TSI	Dialysis	0	0	0	0	0
		Transplant	0	0	0	0	0
	Asian	Dialysis	200	196	207	220	228
		Transplant	111	118	126	130	139
	Māori	Dialysis	762	749	774	850	880
		Transplant	129	140	148	147	158
	Pacific	Dialysis	542	568	603	640	679
		Transplant	86	88	89	94	104
	Other	Dialysis	11	14	17	27	38
		Transplant	9	11	10	11	14
	Not reported	Dialysis	0	0	4	4	4
		Transplant	0	0	0	1	3

Figure 2.3 shows the overall distribution of RRT modality by country at the end of 2014. The dialysis modalities are shown separately in figure 2.4; a

substantially higher proportion of New Zealand dialysis patients receive dialysis at home (either PD or home HD) than in Australia.

Figure 2.3

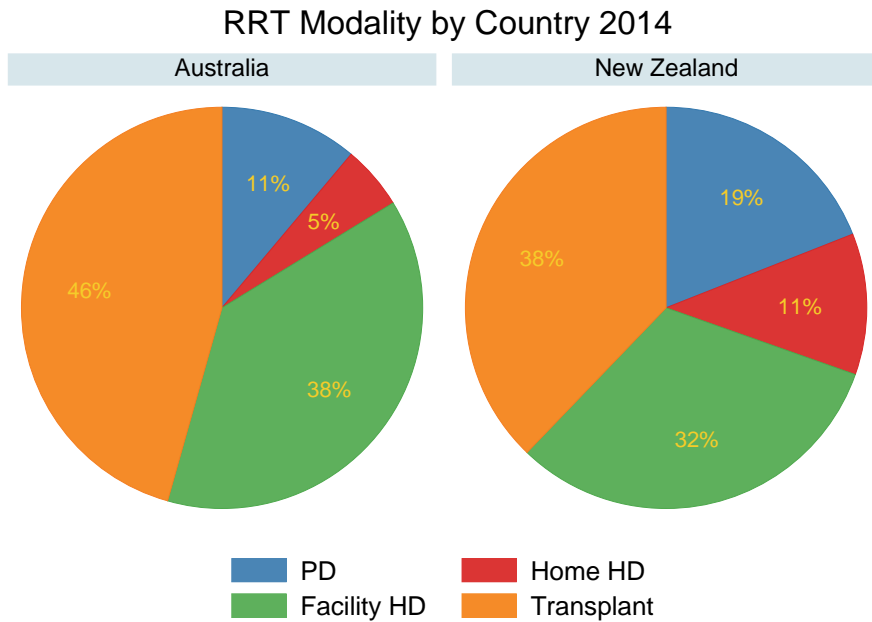
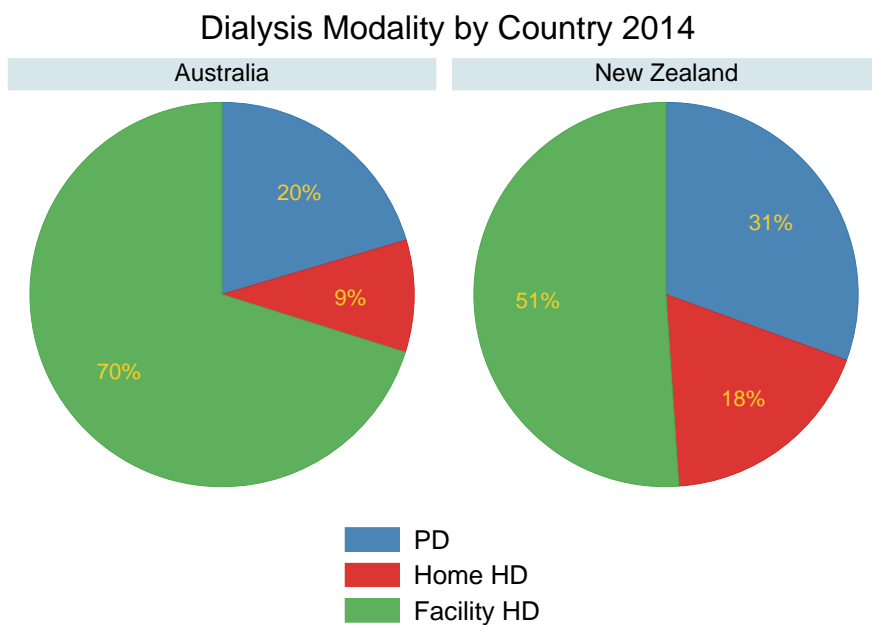


Figure 2.4



Figures 2.5 and 2.6 show the same data by state. There was substantial variation in the types of RRT received

between states; in particular, in the Northern Territory the large majority of patients were receiving satellite HD.

Figure 2.5

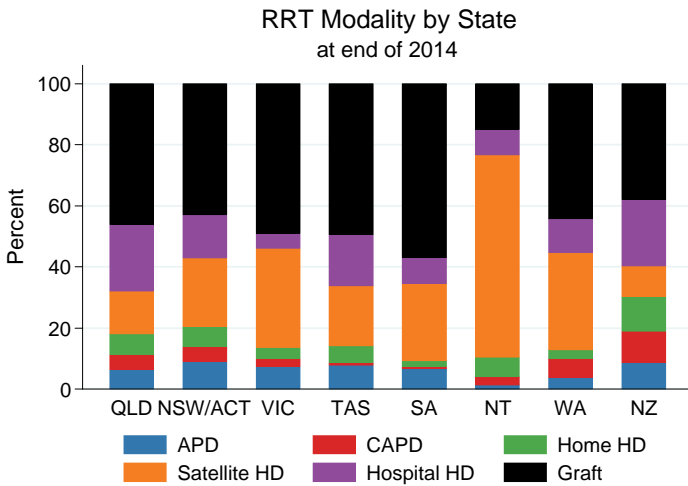
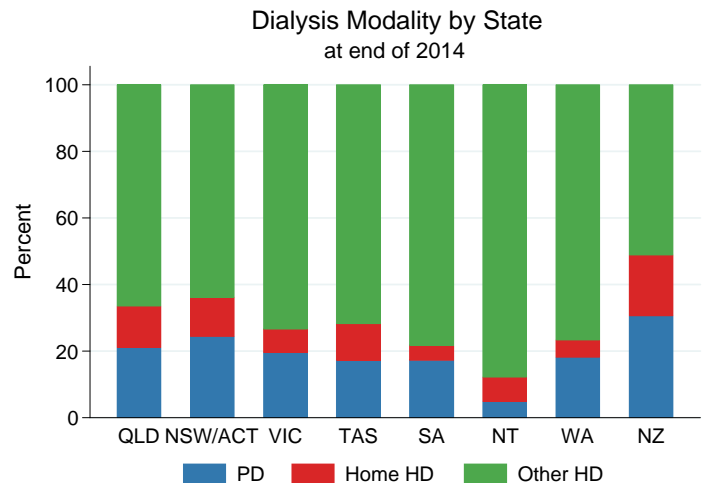


Figure 2.6



Dialysis

Table 2.6 and figures 2.7-2.8 show the age distribution of prevalent dialysis patients in 2014. The dialysis

population in New Zealand is slightly younger than that of Australia.

Table 2.6. Dialysis Prevalence (pmp) by Age - 2014

Age	Australia	New Zealand
0-4	20 (13)	3 (10)
5-14	21 (7)	6 (10)
15-24	139 (44)	60 (94)
25-34	417 (120)	153 (269)
35-44	955 (296)	255 (435)
45-54	1794 (578)	515 (819)
55-64	2571 (956)	728 (1387)
65-74	2990 (1542)	669 (1777)
75-84	2626 (2477)	257 (1309)
85+	558 (1222)	32 (537)

Figure 2.7.1

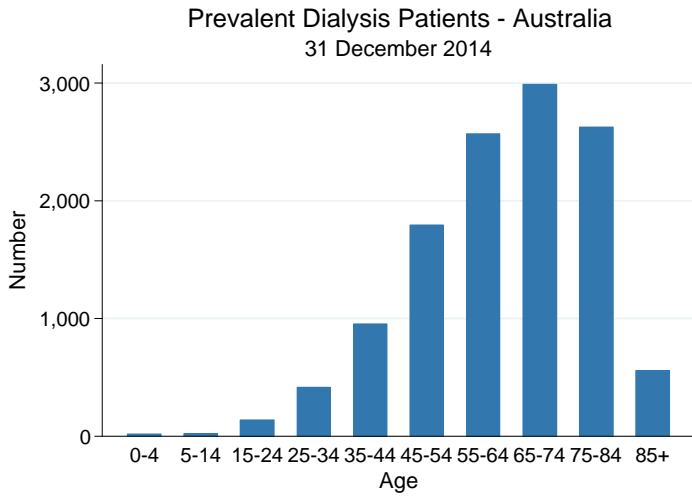


Figure 2.7.1

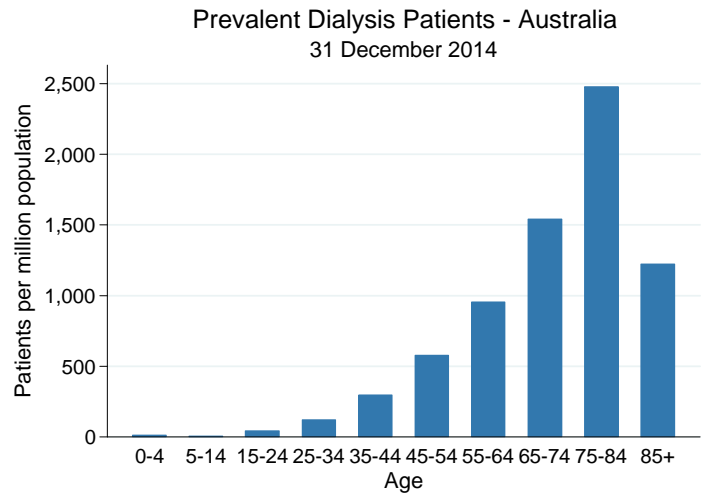


Figure 2.8.1

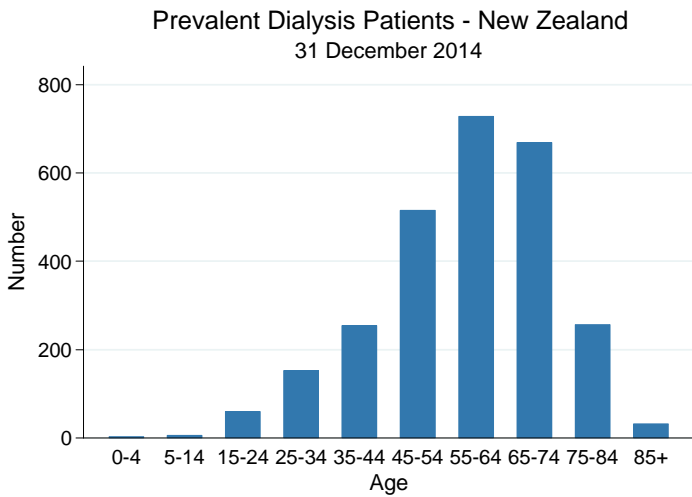


Figure 2.8.1

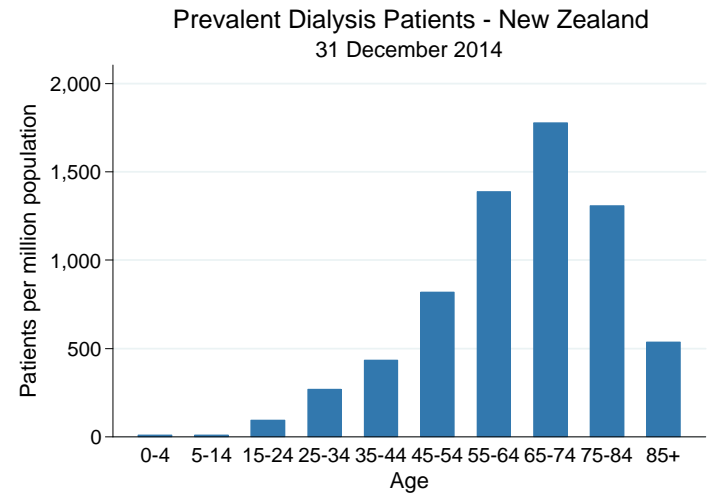


Figure 2.9 and table 2.7 show trends in the method and location of dialysis in Australia and New Zealand over 2010-2014. In Australia most of the growth is in satellite

and hospital HD, whereas in New Zealand there is strong growth in hospital HD and weak growth in home HD.

Figure 2.9.1

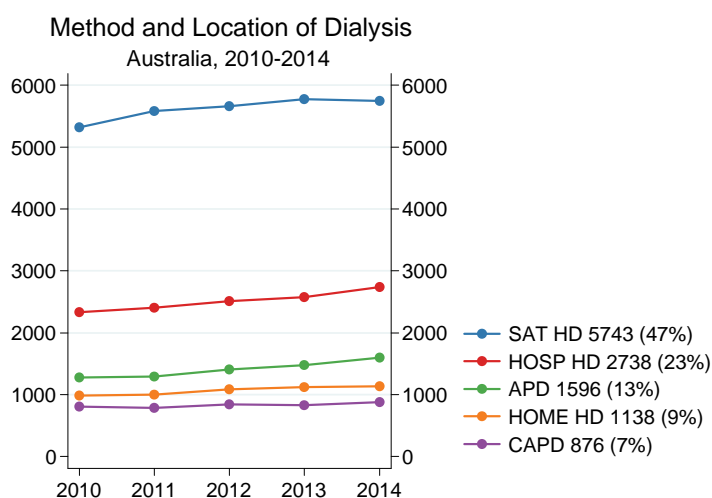


Figure 2.9.1

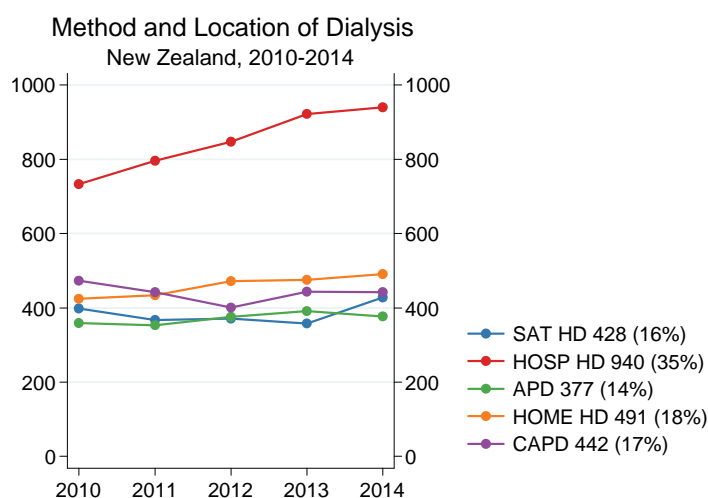


Table 2.7. Method and Location of Dialysis 2010-2014

Country	Dialysis type	Modality	2010	2011	2012	2013	2014
Australia	PD	APD	1280	1290	1406	1477	1596
	PD	CAPD	809	790	841	830	876
		PD	2089	2080	2247	2307	2472
	HD	Hospital	2334	2405	2512	2576	2738
	HD	Satellite	5320	5582	5658	5775	5743
	HD	Home	984	1004	1087	1119	1138
	HD	8638	8991	9257	9470	9619	
New Zealand	PD	APD	359	353	376	391	377
	PD	CAPD	473	442	401	443	442
		PD	832	795	777	834	819
	HD	Hospital	733	796	847	922	940
	HD	Satellite	398	367	371	358	428
	HD	Home	425	434	472	475	491
	HD	1556	1597	1690	1755	1859	

Co-morbidities

Figure 2.10 shows trends in the prevalence of co-morbidities (with 95% CIs) in prevalent RRT patients over the last 10 years. In general the rates of these co-morbidities are stable, although the prevalence of coronary artery disease and peripheral vascular disease appears to be falling in both countries. In general co-

morbidities are less prevalent in New Zealand.

Figure 2.11 shows the prevalence of diabetes. Although the majority of prevalent RRT patients are non-diabetic, there is a strong trend in both countries towards a higher diabetes prevalence.

Figure 2.10.1

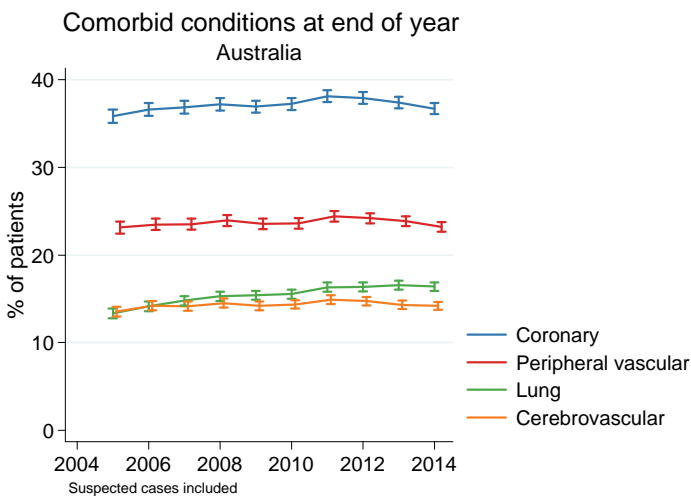


Figure 2.10.1

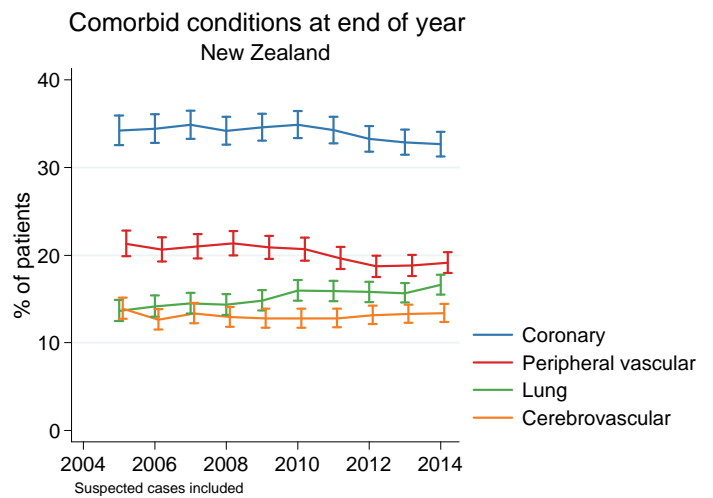
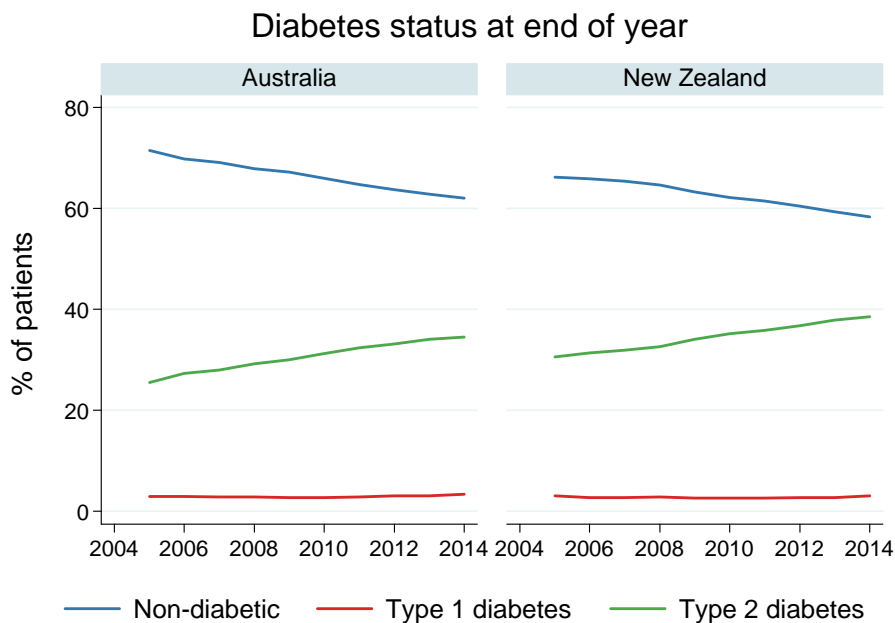


Figure 2.11



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