



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 1994 -2013

Year	Australia			New Zealand		
	Dialysis	Transplant	Total	Dialysis	Transplant	Total
1994	4099 (230)	4095 (230)	8194 (460)	784 (217)	729 (201)	1513 (418)
1995	4518 (251)	4271 (237)	8789 (488)	850 (231)	782 (213)	1632 (444)
1996	4882 (268)	4484 (246)	9366 (514)	934 (250)	822 (220)	1756 (471)
1997	5190 (282)	4741 (257)	9931 (539)	1017 (269)	878 (232)	1895 (501)
1998	5536 (298)	4971 (267)	10507 (565)	1126 (295)	931 (244)	2057 (539)
1999	6019 (320)	5142 (273)	11161 (593)	1230 (321)	978 (255)	2208 (576)
2000	6409 (337)	5349 (281)	11758 (618)	1331 (345)	1020 (264)	2351 (609)
2001	6851 (355)	5571 (289)	12422 (645)	1462 (377)	1060 (273)	2522 (650)
2002	7264 (373)	5856 (300)	13120 (673)	1594 (404)	1113 (282)	2707 (686)
2003	7720 (392)	6088 (309)	13808 (700)	1711 (425)	1164 (289)	2875 (714)
2004	8005 (402)	6393 (321)	14398 (722)	1774 (434)	1219 (298)	2993 (732)
2005	8642 (428)	6655 (330)	15297 (758)	1878 (454)	1244 (301)	3122 (755)
2006	9263 (453)	6985 (342)	16248 (795)	1997 (477)	1258 (301)	3255 (778)
2007	9732 (467)	7249 (348)	16981 (815)	2071 (490)	1302 (308)	3373 (799)
2008	10173 (479)	7653 (360)	17826 (839)	2106 (494)	1353 (318)	3459 (812)
2009	10468 (483)	8042 (371)	18510 (853)	2281 (530)	1407 (327)	3688 (857)
2010	10712 (486)	8500 (386)	19212 (872)	2388 (549)	1444 (332)	3832 (881)
2011	11054 (495)	8855 (396)	19909 (891)	2392 (546)	1486 (339)	3878 (885)
2012	11478 (505)	9264 (408)	20742 (913)	2467 (560)	1521 (345)	3988 (905)
2013	11774 (509)	9696 (419)	21470 (928)	2584 (582)	1572 (354)	4156 (936)

Table 2.2

Prevalence (pmp) of Renal Replacement Therapy by Modality 2009-2013

Country	Patients	2009	2010	2011	2012	2013
Australia	Total	18510 (853)	19212 (872)	19909 (891)	20742 (913)	21470 (928)
	Transplant	8042 (371)	8500 (386)	8855 (396)	9264 (408)	9696 (419)
	Dialysis	10468 (483)	10712 (486)	11054 (495)	11478 (505)	11774 (509)
	- Proportion home	30%	29%	28%	29%	29%
	- Proportion satellite HD	47%	50%	50%	49%	49%
	- Proportion PD	21%	20%	19%	19%	20%
New Zealand	Total	3688 (857)	3832 (881)	3878 (885)	3988 (905)	4156 (936)
	Transplant	1407 (327)	1444 (332)	1486 (339)	1521 (345)	1572 (354)
	Dialysis	2281 (530)	2388 (549)	2392 (546)	2467 (560)	2584 (582)
	- Proportion home	52%	53%	51%	51%	51%
	- Proportion satellite HD	18%	17%	15%	15%	14%
	- Proportion PD	35%	35%	33%	32%	32%

Table 2.3 and figures 2.1-2.2 show the 2013 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 Group - 2013

Age	Australia	New Zealand
0-4	31 (20)	5 (16)
5-14	164 (57)	31 (52)
15-24	469 (151)	118 (188)
25-34	1088 (322)	260 (474)
35-44	2440 (759)	470 (793)
45-54	4075 (1324)	889 (1421)
55-64	5181 (1966)	1174 (2290)
65-74	4581 (2460)	871 (2421)
75-84	2921 (2817)	309 (1614)
85+	520 (1189)	29 (388)

Figure 2.1.1

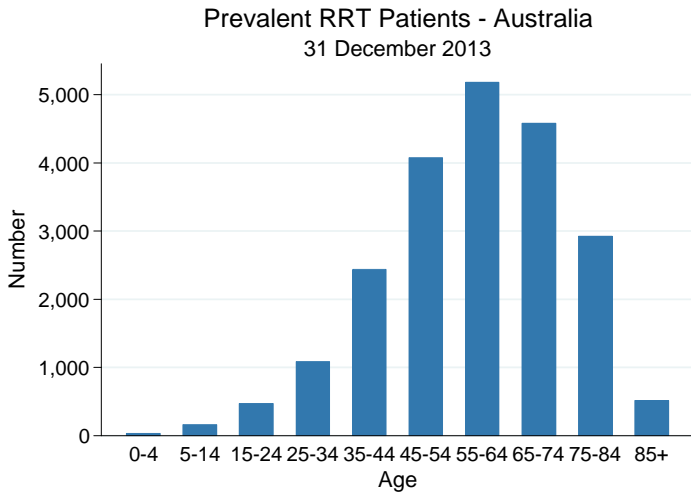


Figure 2.1.2

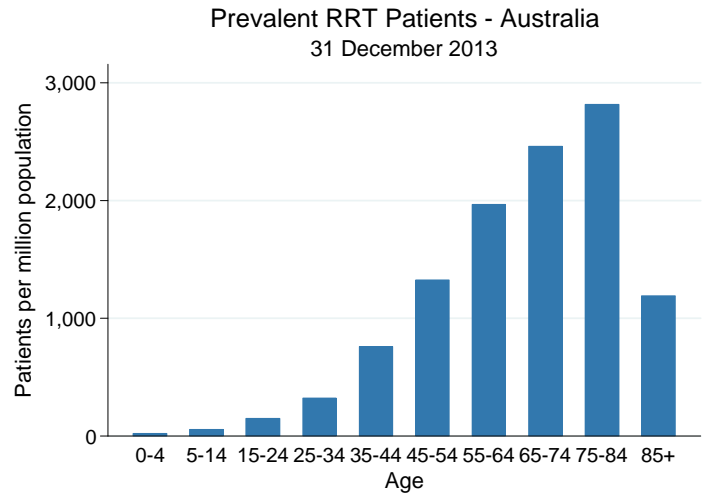


Figure 2.2.1

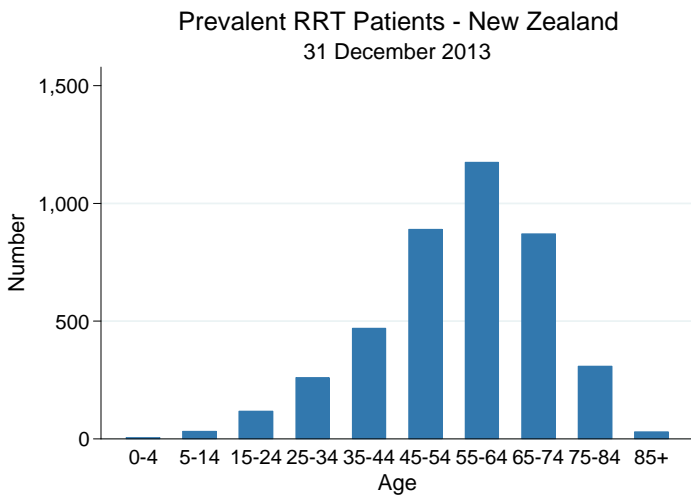


Figure 2.2.2

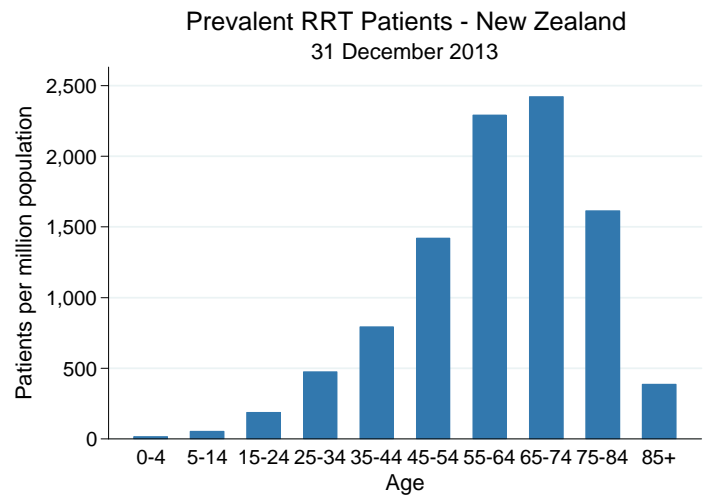


Table 2.4 shows the prevalence (pmp) of RRT by state over 2009-2013. In Australia the Northern Territory has the highest prevalence of dialysis and lowest prevalence

of transplant patients; Tasmania has the lowest prevalence of dialysis patients and the ACT the highest prevalence of transplant patients.

Table 2.4

Prevalence (pmp) of Renal Replacement Therapy by State 2009 - 2013

Modality	State	2009	2010	2011	2012	2013
Dialysis	QLD	1957 (452)	2003 (455)	2016 (450)	2096 (459)	2200 (473)
	NSW	3436 (487)	3500 (490)	3587 (497)	3728 (510)	3764 (508)
	ACT	239 (674)	245 (677)	264 (717)	267 (712)	288 (755)
	VIC	2532 (471)	2617 (479)	2705 (488)	2797 (497)	2892 (504)
	TAS	199 (395)	192 (377)	205 (401)	216 (422)	216 (421)
	SA	683 (425)	679 (417)	715 (436)	738 (446)	753 (451)
	NT	417 (1845)	441 (1919)	463 (2002)	499 (2115)	521 (2153)
	WA	1005 (449)	1035 (452)	1099 (467)	1137 (466)	1140 (452)
	Aust	10468 (483)	10712 (486)	11054 (495)	11478 (505)	11774 (509)
	NZ	2281 (530)	2388 (549)	2392 (546)	2467 (560)	2584 (582)
Transplant	QLD	1577 (364)	1649 (374)	1715 (383)	1799 (394)	1879 (404)
	NSW	2288 (324)	2424 (339)	2496 (346)	2594 (355)	2715 (366)
	ACT	199 (561)	213 (589)	217 (590)	234 (624)	233 (611)
	VIC	2059 (383)	2212 (405)	2355 (425)	2487 (442)	2644 (461)
	TAS	195 (387)	207 (407)	222 (434)	227 (443)	223 (435)
	SA	869 (540)	906 (557)	920 (561)	949 (573)	970 (581)
	NT	67 (296)	69 (300)	68 (294)	81 (343)	86 (355)
	WA	788 (352)	820 (358)	862 (366)	893 (366)	946 (375)
	Aust	8042 (371)	8500 (386)	8855 (396)	9264 (408)	9696 (419)
	NZ	1407 (327)	1444 (332)	1486 (339)	1521 (345)	1572 (354)

Table 2.5 shows the same data by race. A substantial proportion 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 2009-2013.

Table 2.5

Prevalence (pmp) of Renal Replacement Therapy by Race 2009 - 2013

Country	Race	Modality	2009	2010	2011	2012	2013
Australia	Caucasian	Dialysis	7838	7946	8110	8244	8314
		Transplant	6993	7359	7609	7909	8197
	Aboriginal/TSI	Dialysis	1183	1214	1307	1418	1478
		Transplant	161	178	191	192	204
	Asian	Dialysis	979	1027	1058	1136	1182
		Transplant	687	745	815	870	942
	Māori	Dialysis	85	106	104	116	118
		Transplant	31	31	41	49	54
	Pacific	Dialysis	219	237	262	296	316
		Transplant	59	66	69	75	87
	Other	Dialysis	163	180	203	239	331
		Transplant	111	121	130	154	185
	Not reported	Dialysis	1	2	10	29	35
		Transplant	0	0	0	15	27
New Zealand	Caucasian	Dialysis	862	873	865	865	852
		Transplant	1090	1108	1128	1151	1188
	Aboriginal/TSI	Dialysis	0	0	0	0	0
		Transplant	0	0	0	0	0
	Asian	Dialysis	184	200	196	207	219
		Transplant	105	111	118	125	130
	Māori	Dialysis	734	762	749	774	850
		Transplant	120	130	141	147	148
	Pacific	Dialysis	490	542	568	600	634
		Transplant	85	86	88	87	92
	Other	Dialysis	11	11	14	17	25
		Transplant	7	9	11	10	11
	Not reported	Dialysis	0	0	0	4	4
		Transplant	0	0	0	1	3

Figure 2.3 shows the overall distribution of RRT modality by country at the end of 2013. 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

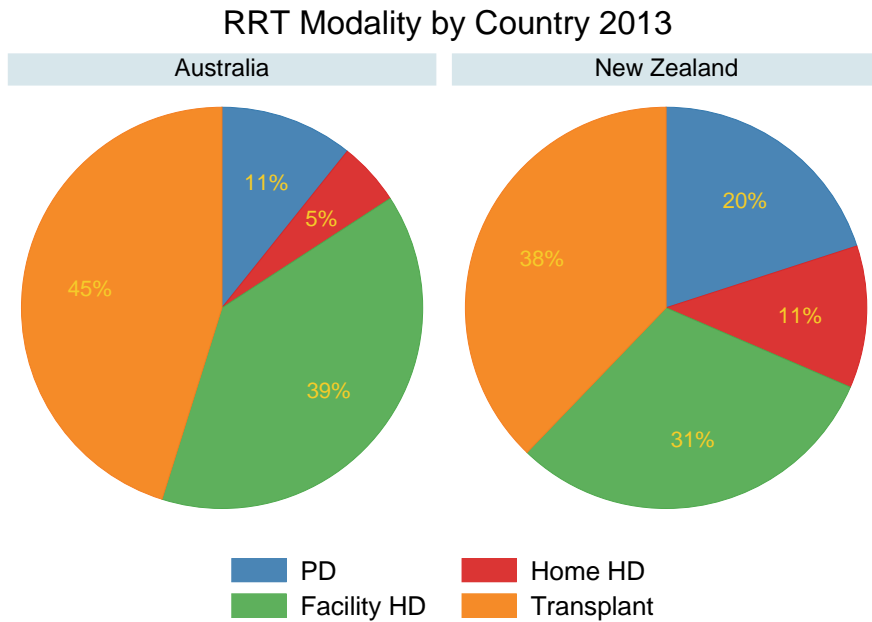
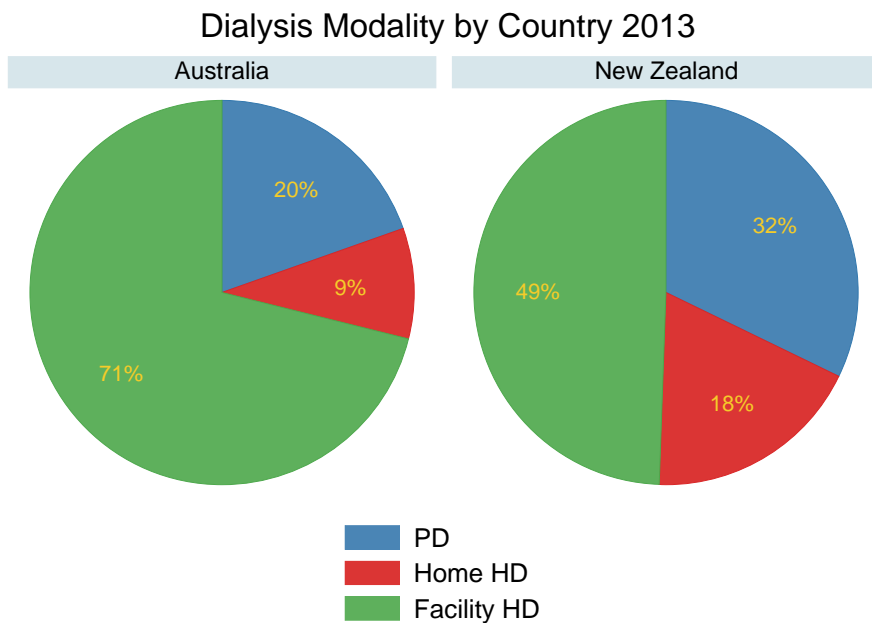


Figure 2.4



Figures 2.5 and 2.6 show the same data by state. There was substantial variation in the types of RRT received between states, with the biggest outlier being the

Northern Territory in which the large majority of patients were receiving satellite HD.

Figure 2.5

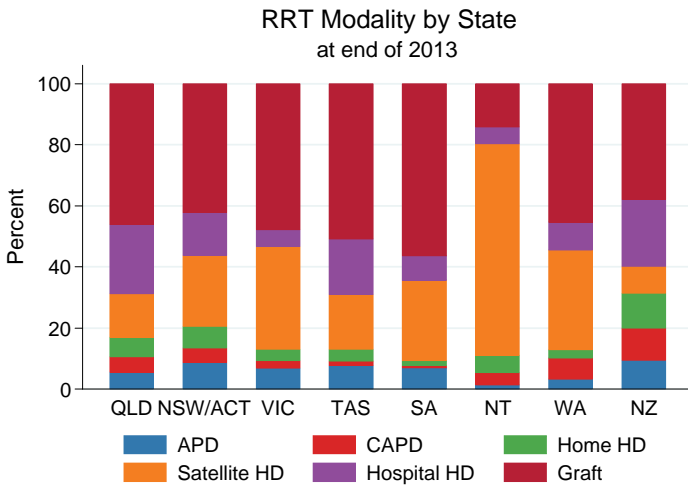
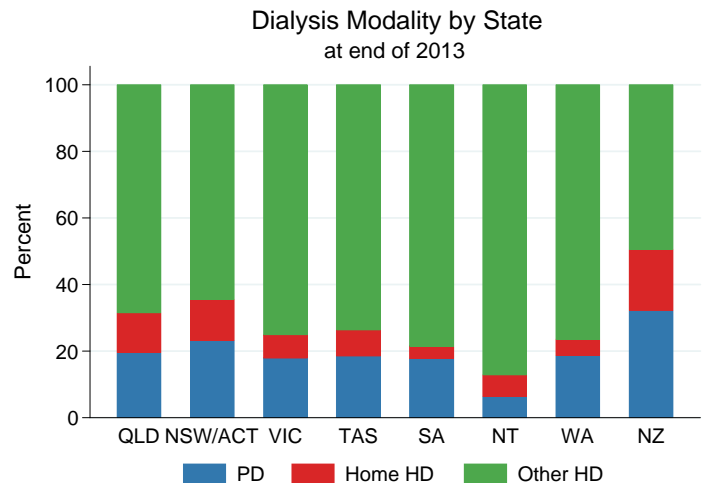


Figure 2.6



Dialysis

Table 2.6 and figures 2.7-2.8 show the age distribution of prevalent dialysis patients in 2013. The dialysis

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

Table 2.6

Dialysis Prevalence (pmp) by Age - 2013

Age	Australia	New Zealand
0-4	17 (11)	1 (3)
5-14	22 (8)	5 (8)
15-24	153 (49)	61 (97)
25-34	400 (118)	138 (252)
35-44	932 (290)	253 (427)
45-54	1747 (568)	492 (786)
55-64	2525 (958)	741 (1445)
65-74	2898 (1556)	615 (1709)
75-84	2568 (2477)	252 (1316)
85+	512 (1171)	26 (348)

Figure 2.7.1

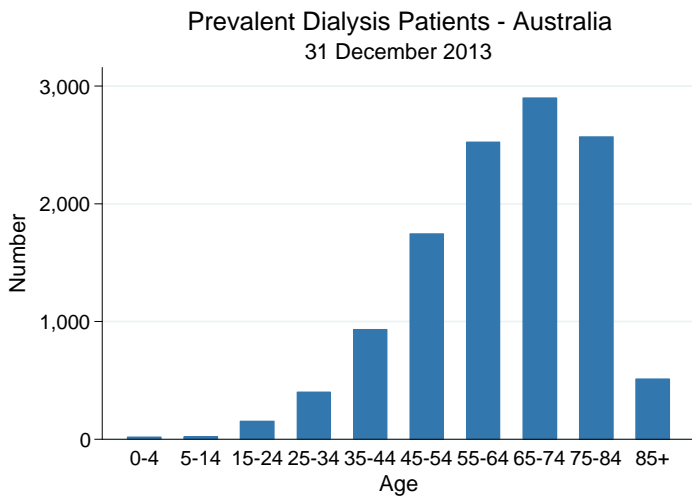


Figure 2.7.1

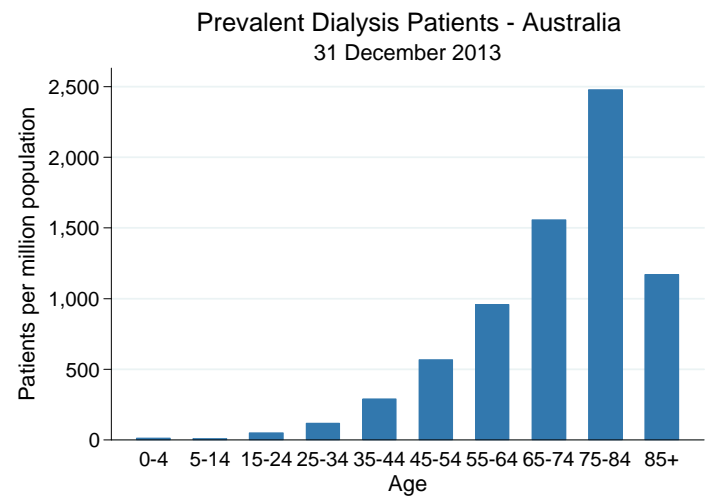


Figure 2.8.1

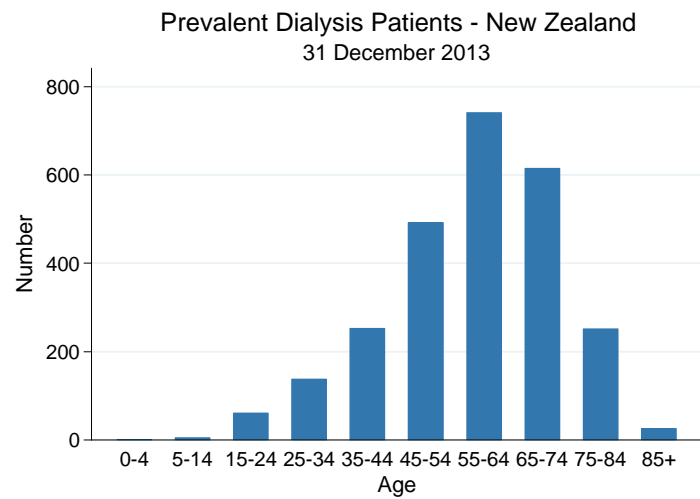


Figure 2.8.1

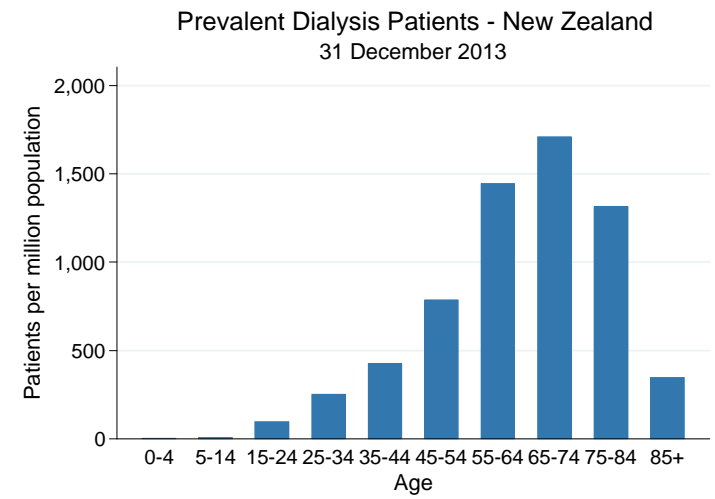


Figure 2.9 and table 2.7 show trends in the method and location of dialysis in Australia and New Zealand over 2009-2013. In Australia most of the growth is in satellite

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

Figure 2.9.1

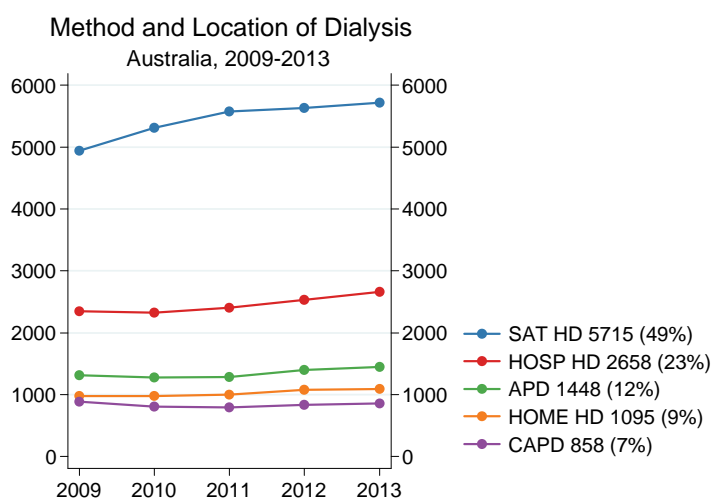


Figure 2.9.1

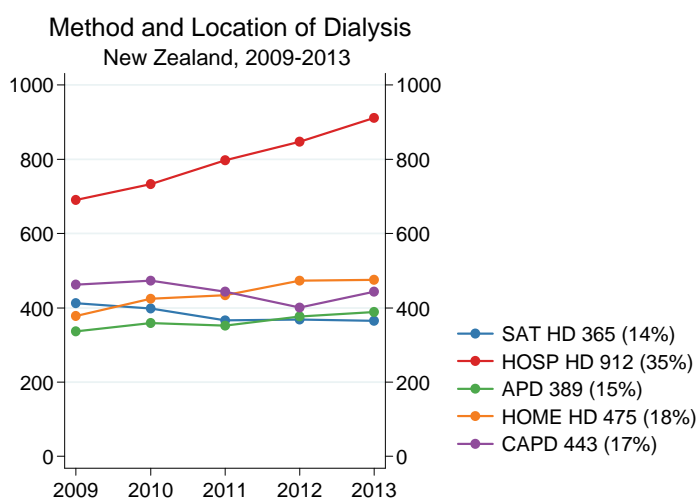


Table 2.7

Method and Location of Dialysis 2009-2013

Country	Dialysis type	Modality	2009	2010	2011	2012	2013
Australia	PD	APD	1314	1279	1285	1400	1448
	PD	CAPD	889	810	793	838	858
	PD	Total	2203	2089	2078	2238	2306
	HD	Hospital	2347	2326	2401	2533	2658
	HD	Satellite	4939	5315	5575	5630	5715
	HD	Home	979	982	1000	1077	1095
	HD	Total	8265	8623	8976	9240	9468
New Zealand	PD	APD	337	359	352	377	389
	PD	CAPD	463	473	443	401	443
	PD	Total	800	832	795	778	832
	HD	Hospital	690	733	797	847	912
	HD	Satellite	413	398	366	369	365
	HD	Home	378	425	434	473	475
	HD	Total	1481	1556	1597	1689	1752

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 New Zealand. 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

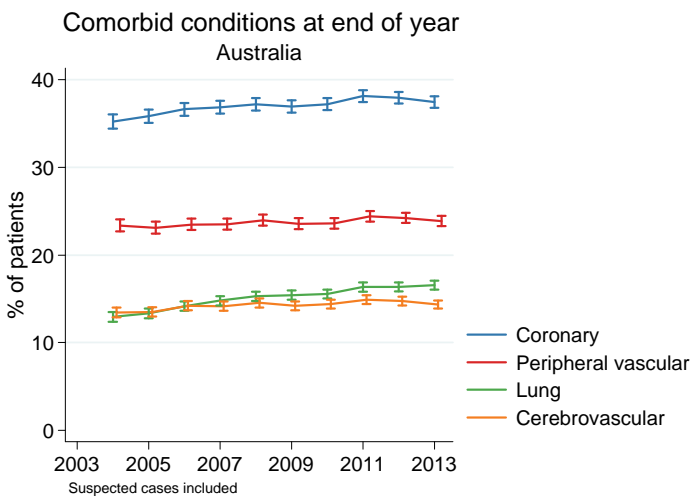


Figure 2.10.1

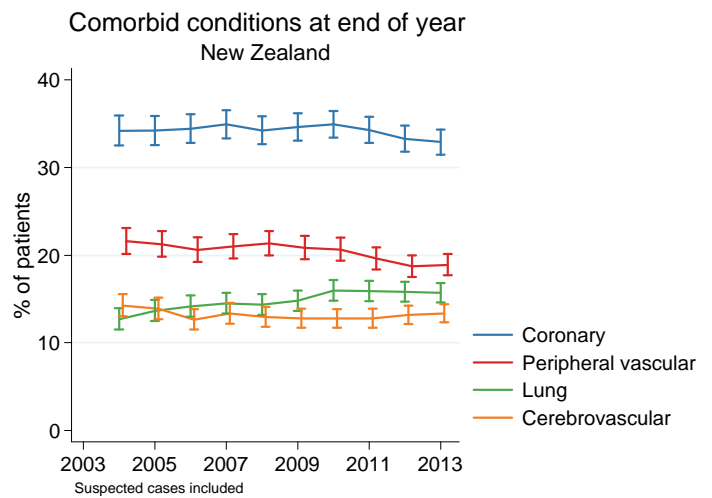
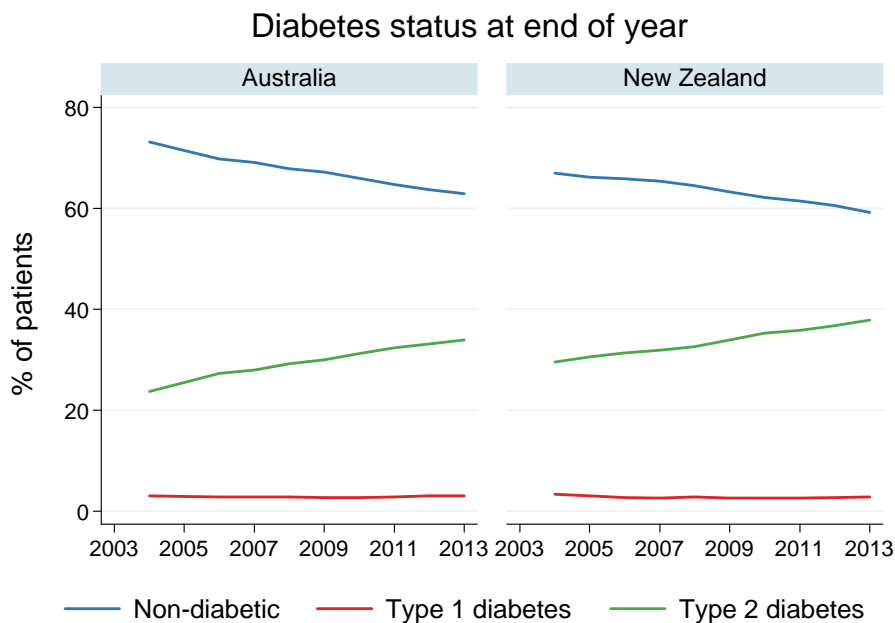


Figure 2.11



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