

Chapter 2

Prevalence of End Stage Kidney Disease



2016
ANZDATA Registry
39th Annual Report

Data to 31-Dec-2015

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 1996-2015

Year	Australia			New Zealand		
	Dialysis	Transplant	Total	Dialysis	Transplant	Total
1996	4882 (268)	4483 (246)	9365 (514)	934 (250)	821 (220)	1755 (470)
1997	5190 (282)	4739 (257)	9929 (539)	1017 (269)	876 (232)	1893 (501)
1998	5537 (298)	4969 (267)	10506 (565)	1126 (295)	929 (244)	2055 (539)
1999	6019 (320)	5140 (273)	11159 (593)	1230 (321)	976 (254)	2206 (575)
2000	6409 (337)	5346 (281)	11755 (618)	1331 (345)	1018 (264)	2349 (609)
2001	6851 (355)	5568 (289)	12419 (644)	1462 (377)	1058 (273)	2520 (649)
2002	7265 (373)	5852 (300)	13117 (673)	1594 (404)	1113 (282)	2707 (686)
2003	7721 (392)	6085 (309)	13806 (700)	1711 (425)	1164 (289)	2875 (714)
2004	8006 (402)	6389 (321)	14395 (722)	1774 (434)	1219 (298)	2993 (732)
2005	8642 (428)	6652 (330)	15294 (758)	1878 (454)	1243 (301)	3121 (755)
2006	9266 (453)	6981 (341)	16247 (794)	1997 (477)	1258 (301)	3255 (778)
2007	9736 (467)	7251 (348)	16987 (816)	2071 (490)	1303 (308)	3374 (799)
2008	10182 (479)	7657 (360)	17839 (840)	2106 (494)	1353 (318)	3459 (812)
2009	10479 (483)	8048 (371)	18527 (854)	2282 (530)	1405 (327)	3687 (857)
2010	10738 (487)	8505 (386)	19243 (873)	2389 (549)	1443 (332)	3832 (881)
2011	11085 (496)	8865 (397)	19950 (893)	2394 (546)	1483 (338)	3877 (884)
2012	11529 (507)	9263 (408)	20792 (915)	2471 (561)	1522 (345)	3993 (906)
2013	11831 (512)	9656 (418)	21487 (929)	2595 (584)	1571 (354)	4166 (938)
2014	12202 (520)	10083 (430)	22285 (950)	2680 (594)	1619 (359)	4299 (953)
2015	12461 (524)	10551 (444)	23012 (968)	2674 (582)	1694 (369)	4368 (950)

Table 2.2. Prevalence (pmp) of Renal Replacement Therapy by Modality 2011-2015

Country	Patients	2011	2012	2013	2014	2015
Australia	Total	19950 (893)	20792 (915)	21487 (929)	22285 (950)	23012 (968)
	Transplant	8865 (397)	9263 (408)	9656 (418)	10083 (430)	10551 (444)
	Dialysis	11085 (496)	11529 (507)	11831 (512)	12202 (520)	12461 (524)
	- Proportion home	28%	29%	29%	30%	30%
	- Proportion satellite HD	50%	49%	49%	48%	48%
	- Proportion PD	19%	20%	20%	20%	20%
	Total	3877 (884)	3993 (906)	4166 (938)	4299 (953)	4368 (950)
	Transplant	1483 (338)	1522 (345)	1571 (354)	1619 (359)	1694 (369)
New Zealand	Dialysis	2394 (546)	2471 (561)	2595 (584)	2680 (594)	2674 (582)
	- Proportion home	51%	51%	51%	49%	48%
	- Proportion satellite HD	15%	15%	14%	16%	17%
	- Proportion PD	33%	31%	32%	31%	30%

Table 2.3 and figures 2.1-2.2 show the 2015 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 2015

Age	Australia	New Zealand
0-4	41 (27)	5 (16)
5-14	161 (55)	35 (58)
15-24	484 (154)	102 (156)
25-34	1127 (321)	292 (487)
35-44	2463 (762)	454 (779)
45-54	4295 (1376)	944 (1494)
55-64	5533 (2021)	1194 (2222)
65-74	5188 (2579)	965 (2468)
75-84	3109 (2863)	346 (1702)
85+	611 (1294)	31 (387)

Figure 2.1.1

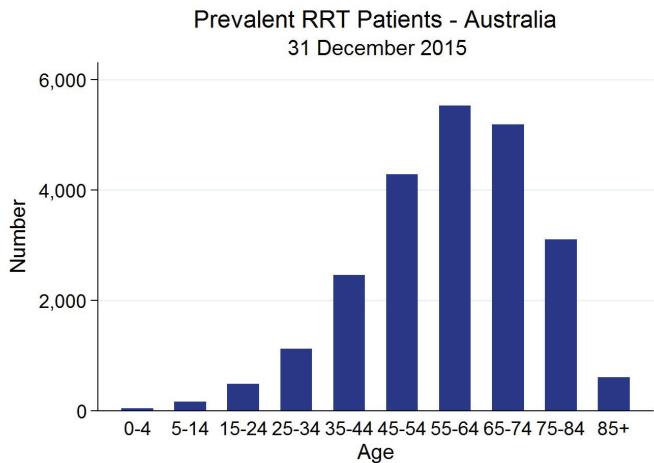


Figure 2.1.2

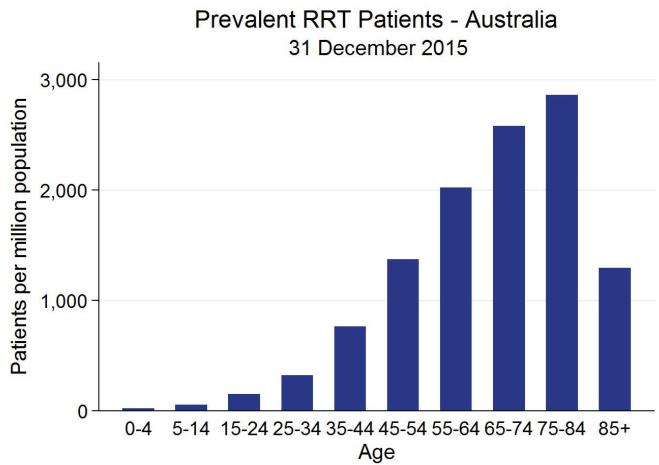


Figure 2.2.1

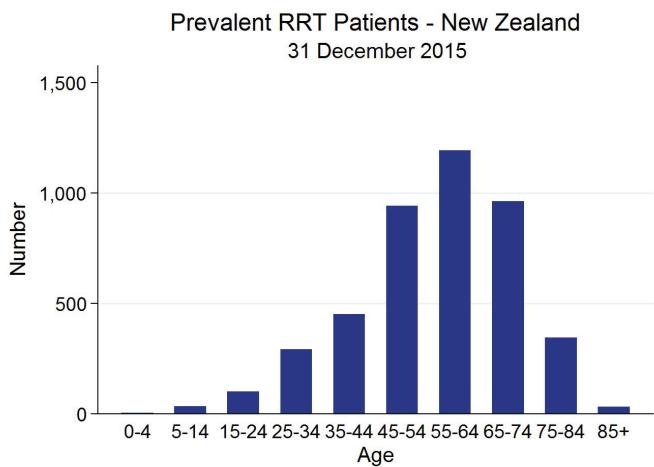


Figure 2.2.2

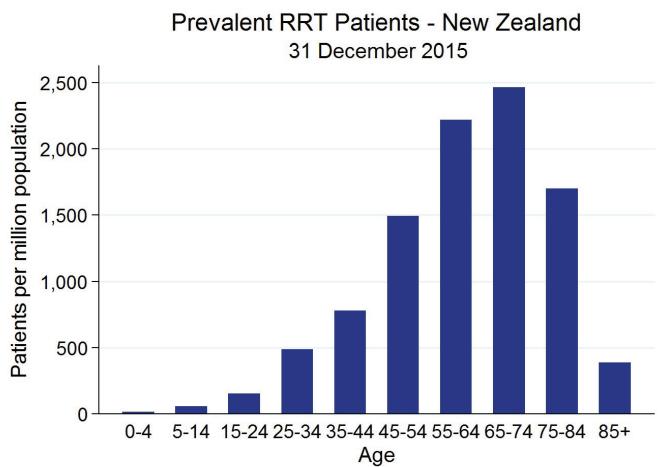


Table 2.4 shows the prevalence (pmp) of RRT by state over 2011-2015. In Australia at the end of 2015 the Northern Territory had the highest prevalence of dialysis patients and South Australia the lowest; the ACT had the highest prevalence of transplant patients and Western Australia the lowest.

Table 2.4. Prevalence (pmp) of Renal Replacement Therapy by State 2011-2015

Modality	State	2011	2012	2013	2014	2015
Dialysis	QLD	2023 (452)	2104 (461)	2223 (478)	2314 (490)	2369 (496)
	NSW	3603 (499)	3752 (513)	3804 (514)	3879 (516)	3906 (513)
	ACT	264 (717)	268 (714)	287 (753)	284 (737)	279 (714)
	VIC	2707 (489)	2808 (499)	2904 (506)	2974 (509)	3021 (509)
	TAS	205 (401)	217 (424)	218 (425)	229 (445)	241 (466)
	SA	716 (437)	738 (446)	751 (450)	751 (446)	761 (448)
	NT	462 (1997)	499 (2115)	518 (2135)	556 (2282)	614 (2510)
	WA	1105 (470)	1143 (469)	1126 (448)	1215 (475)	1270 (490)
	Aust	11085 (496)	11529 (507)	11831 (512)	12202 (520)	12461 (524)
Transplant	NZ	2394 (546)	2471 (561)	2595 (584)	2680 (594)	2674 (582)
	QLD	1721 (384)	1800 (394)	1866 (401)	1923 (407)	1977 (414)
	NSW	2495 (346)	2586 (354)	2692 (363)	2837 (378)	3004 (394)
	ACT	218 (592)	235 (626)	238 (625)	239 (620)	251 (642)
	VIC	2363 (427)	2495 (443)	2645 (461)	2833 (485)	2976 (501)
	TAS	221 (432)	228 (445)	225 (439)	221 (429)	236 (457)
	SA	919 (560)	949 (573)	965 (578)	974 (578)	1007 (593)
	NT	69 (298)	82 (348)	87 (359)	98 (402)	102 (417)
	WA	859 (365)	888 (364)	938 (373)	958 (374)	998 (385)
	Aust	8865 (397)	9263 (408)	9656 (418)	10083 (430)	10551 (444)
	NZ	1483 (338)	1522 (345)	1571 (354)	1619 (359)	1694 (369)

Table 2.5 shows the same data by race. A substantial number of Māori and Pacific Peoples were receiving RRT in Australia, and there was one Aboriginal/Torres Strait Islander patient receiving RRT in New Zealand during 2011-2015.

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

Country	Race	Modality	2011	2012	2013	2014	2015
Australia	Caucasian	Dialysis	8125	8274	8364	8401	8396
		Transplant	7610	7904	8160	8443	8722
	Aboriginal/TSI	Dialysis	1311	1426	1482	1575	1647
		Transplant	191	192	205	220	241
	Asian	Dialysis	1065	1156	1212	1271	1266
		Transplant	826	883	959	1034	1127
	Māori	Dialysis	104	116	119	133	129
		Transplant	41	48	54	56	60
	Pacific	Dialysis	293	325	340	368	395
		Transplant	84	92	105	115	118
	Other	Dialysis	172	201	271	369	467
		Transplant	109	131	155	179	213
	Not reported	Dialysis	15	31	43	85	161
		Transplant	4	13	18	36	70
New Zealand	Caucasian	Dialysis	866	864	852	847	829
		Transplant	1126	1149	1188	1206	1249
	Aboriginal/TSI	Dialysis	0	0	0	0	1
		Transplant	0	0	0	0	0
	Asian	Dialysis	197	209	224	233	246
		Transplant	118	126	131	138	142
	Māori	Dialysis	749	774	850	876	849
		Transplant	140	148	146	156	170
	Pacific	Dialysis	567	602	644	688	695
		Transplant	88	89	94	105	118
	Other	Dialysis	14	17	20	31	47
		Transplant	10	9	10	12	13
	Not reported	Dialysis	1	5	5	5	7
		Transplant	1	1	2	2	2

Figure 2.3 shows the overall distribution of RRT modality by country at the end of 2015. 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

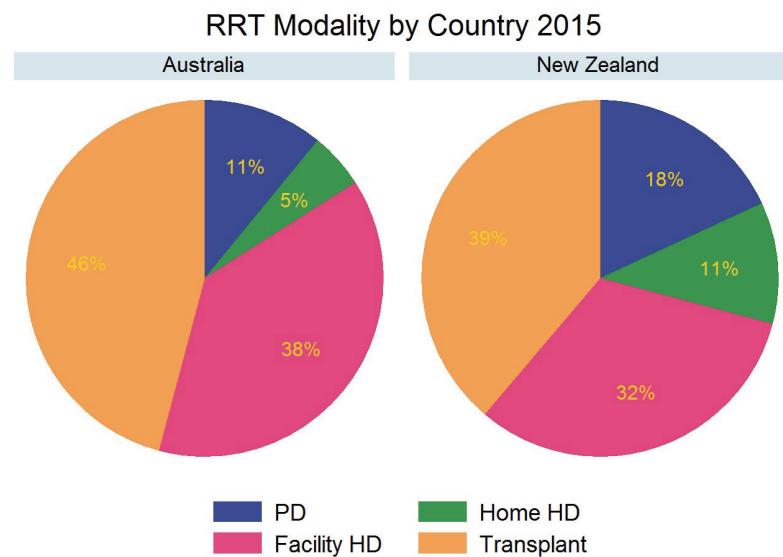
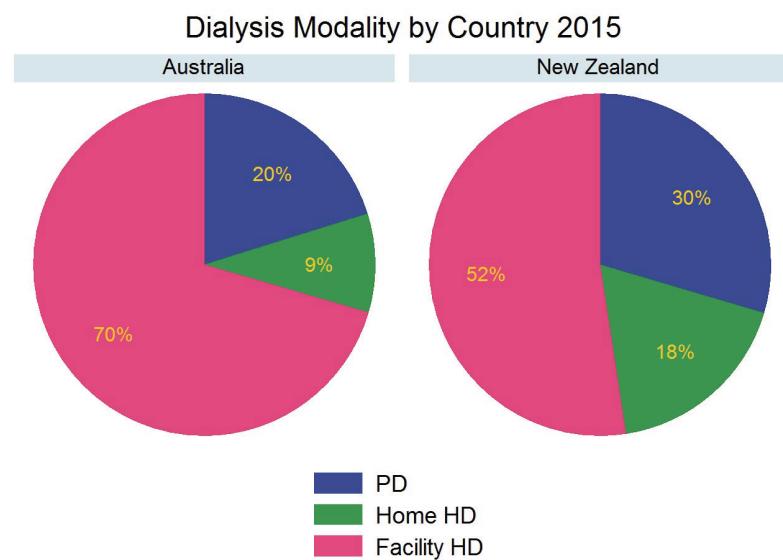


Figure 2.4



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

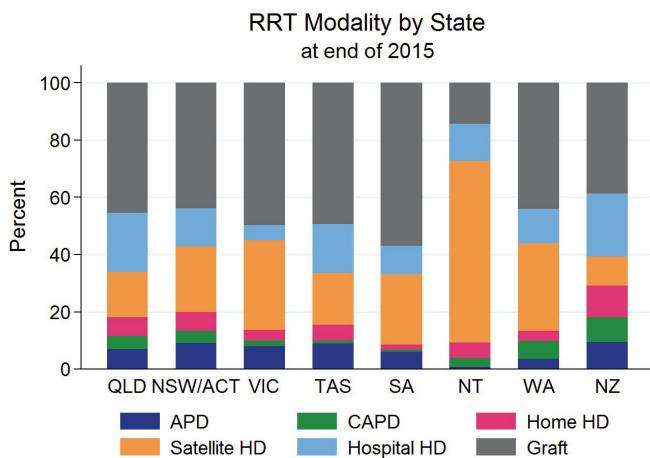
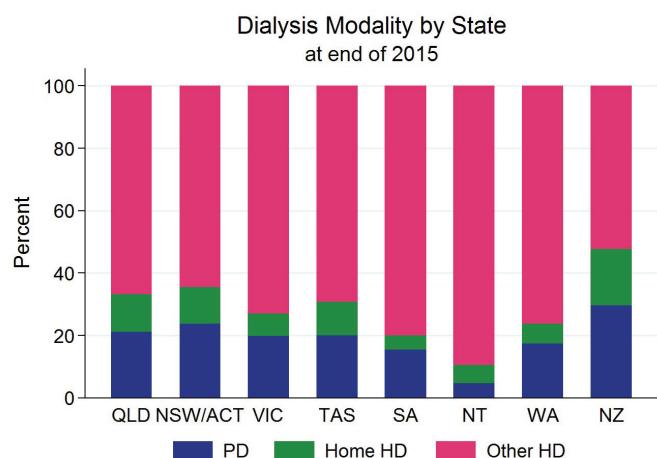


Figure 2.6



Dialysis

Table 2.6 and figures 2.7-2.8 show the age distribution of prevalent dialysis patients in 2015. The dialysis population in New Zealand is slightly younger than that of Australia.

Table 2.6. Dialysis Prevalence (pmp) by Age - 2015

Age	Australia	New Zealand
0-4	22 (14)	4 (13)
5-14	16 (5)	3 (5)
15-24	146 (47)	51 (78)
25-34	437 (125)	153 (255)
35-44	955 (296)	251 (431)
45-54	1846 (591)	522 (826)
55-64	2620 (957)	723 (1345)
65-74	3151 (1567)	666 (1704)
75-84	2680 (2468)	276 (1357)
85+	588 (1245)	25 (312)

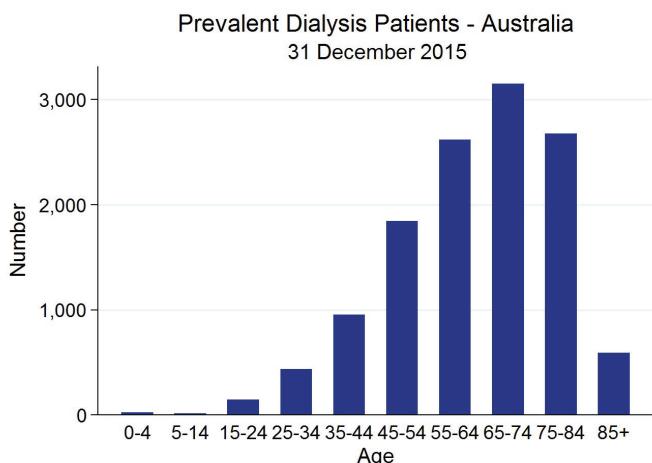
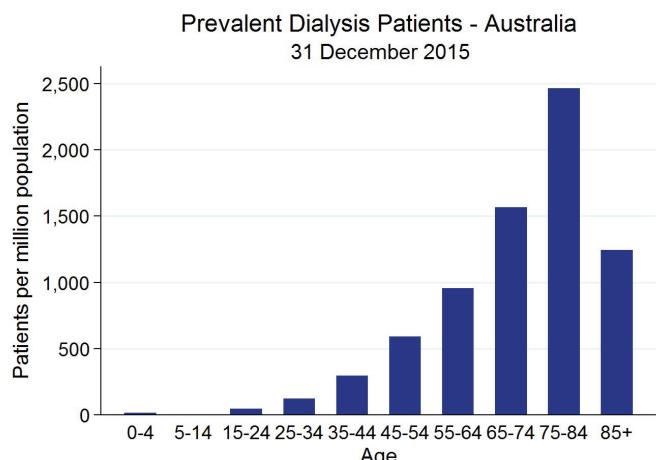
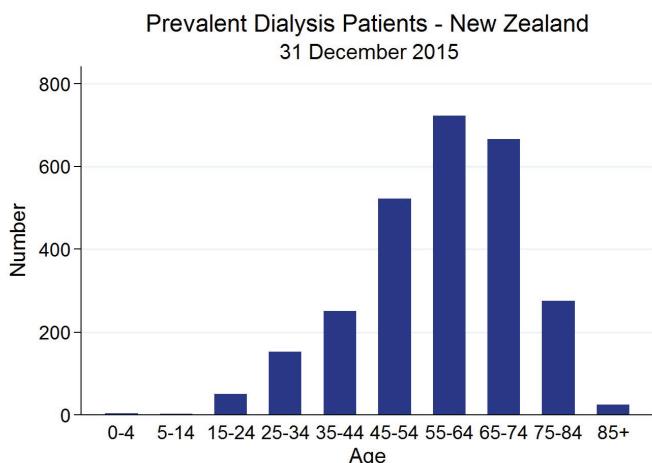
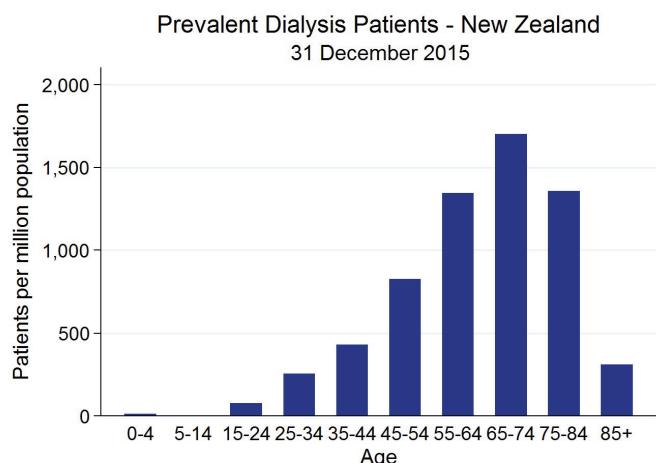
Figure 2.7.1**Figure 2.7.2****Figure 2.8.1****Figure 2.8.2**

Figure 2.9 and table 2.7 show trends in the method and location of dialysis in Australia and New Zealand over 2011-2015. In Australia most of the growth is in satellite and hospital HD, whereas in New Zealand there is growth in hospital HD and a slight decline in home HD.

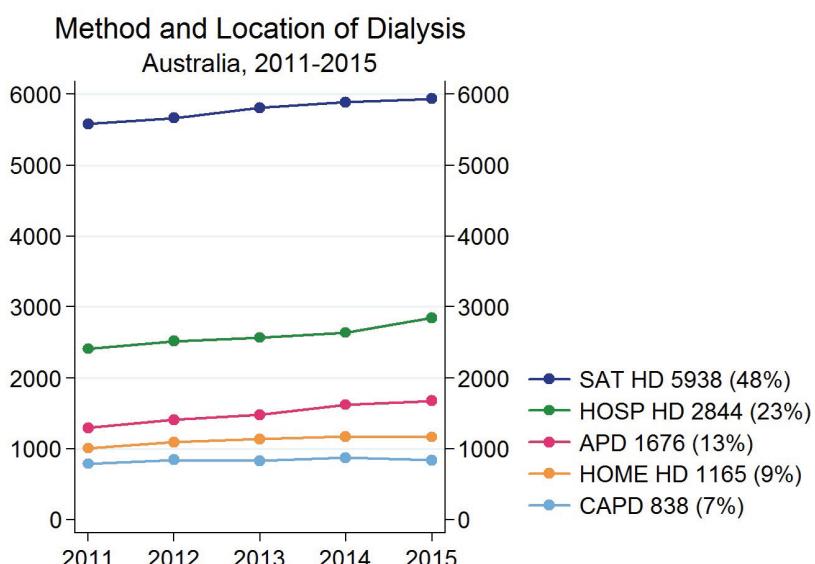
Figure 2.9.1

Figure 2.9.2

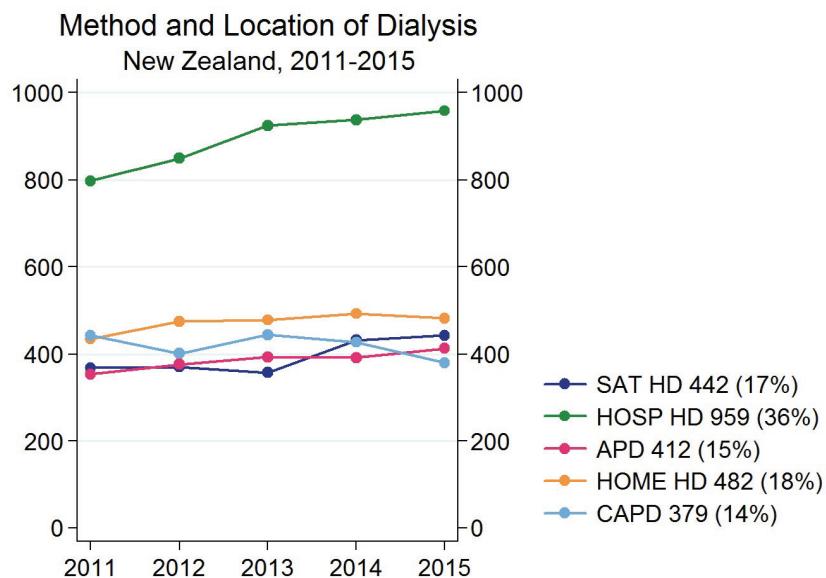


Table 2.7. Method and Location of Dialysis 2010-2014

Country	Dialysis type	Modality	2011	2012	2013	2014	2015
Australia	PD	APD	1293	1409	1480	1622	1676
		CAPD	789	841	833	874	838
	PD Total		2082	2250	2313	2496	2514
	HD	Hospital	2413	2516	2570	2643	2844
		Satellite	5582	5667	5813	5892	5938
		Home	1008	1096	1135	1171	1165
	HD Total		9003	9279	9518	9706	9947
New Zealand	PD	APD	353	376	392	391	412
		CAPD	442	401	443	427	379
	PD Total		795	777	835	818	791
	HD	Hospital	797	850	925	938	959
		Satellite	368	370	357	432	442
		Home	434	474	478	492	482
	HD Total		1599	1694	1760	1862	1883

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

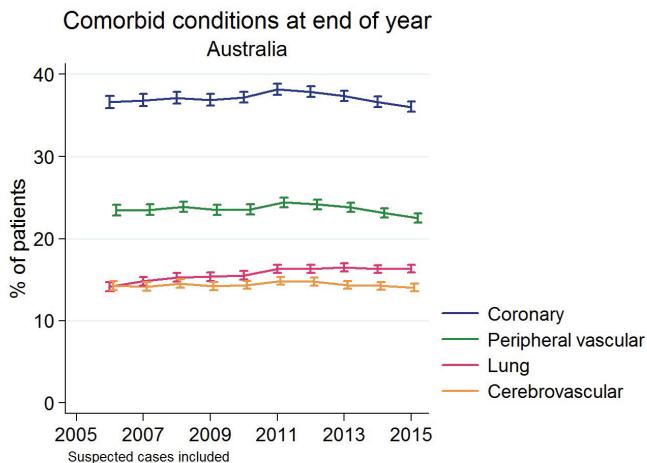


Figure 2.10.2

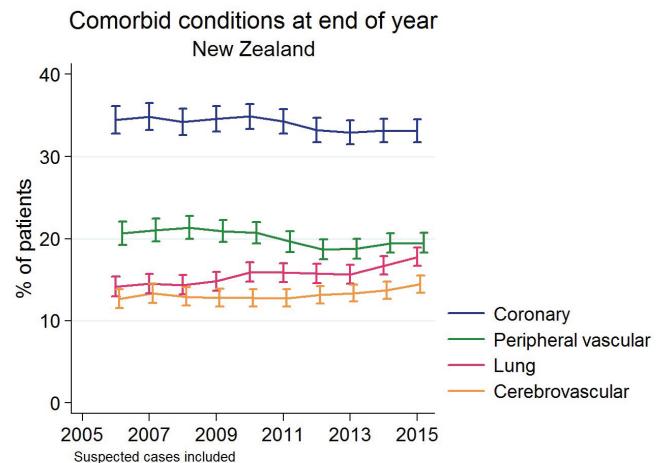
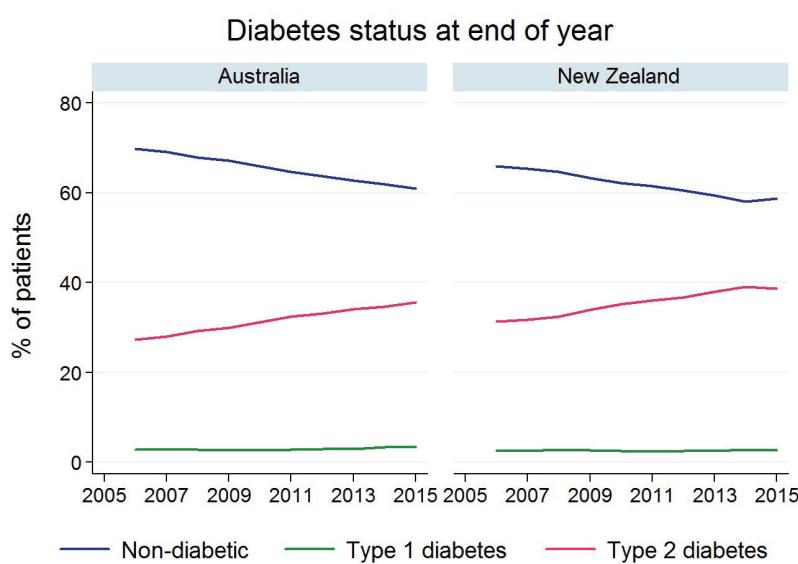


Figure 2.11



Suggested Citation:

ANZDATA Registry. 39th Report, Chapter 2: Prevalence of End Stage Kidney Disease. Australia and New Zealand Dialysis and Transplant Registry, Adelaide, Australia. 2017. Available at: <http://www.anzdata.org.au>

ANZDATA Registry

C-1 South Australia Health and Medical Research Institute (SAHMRI) Building
Level 4 South
North Terrace, Adelaide
South Australia
Australia

www.anzdata.org.au
Phone +61 8 8128 4758