



CHAPTER 4

METHOD AND LOCATION OF DIALYSIS

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AUSTRALIA

Figure 4.1

Method and Location of Dialysis 2007 - 2011							
Mode of Treatment		2007	2008	2009	2010	2011	
Aust	Peritoneal Dialysis	APD	1150	1271	1313	1279	1281
		CAPD	987	971	887	803	788
		Total	2137	2242	2200	2082	2069
	HD	Hospital	2302	2326	2343	2321	2427
		Home	949	951	977	974	972
		Satellite	4342	4647	4931	5300	5530
Total		7593	7924	8251	8595	8929	
NZ	Peritoneal Dialysis	APD	246	288	336	358	351
		CAPD	500	475	463	474	439
		Total	746	763	799	832	790
	HD	Hospital	615	622	690	731	790
		Home	327	331	378	424	433
		Satellite	383	390	413	398	368
Total		1325	1343	1481	1553	1591	

During the past year, there was an increase of 321 (3%) in the total number of prevalent dialysis patients. There were 10,998 patients (493 per million) receiving dialysis treatment at 31st December 2011.

The distribution of these patients across the modalities continues to change (Figures 4.1 and 4.3). The majority (73%) of haemodialysis patients were out of hospital: 11% were dialysing at home and 62% in satellite centres.

The proportion of patients receiving haemodialysis (particularly satellite HD) continues to steadily increase while the proportion receiving peritoneal dialysis (APD and CAPD) decreased by 1% in 2011 after a 6% decrease in 2010.

Twelve percent of all prevalent dialysis patients were using automated peritoneal dialysis, a further 7% continuous ambulatory peritoneal dialysis, 22% hospital based haemodialysis, 50% satellite haemodialysis and 9% home haemodialysis.

Automated peritoneal dialysis increased in 2011 to 1281 patients, however continuous ambulatory peritoneal dialysis decreased to 788 patients.

The number of patients receiving dialysis treatment rose in all State/Territories in 2011. The number of dialysis patients in relation to population in each state is shown in Figure 4.2.

Fifty percent of all prevalent dialysis patients were 65 years or older, and 472 patients (4%) were 85 years or older.

Figure 4.2

Prevalence of Dialysis Dependent Patients By State 2007 - 2011 (per Million Population)					
	2007	2008	2009	2010	2011
Queensland	1807 (433)	1885 (441)	1957 (448)	2001 (452)	2005 (448)
New South Wales*	3194 (478)	3360 (497)	3426 (500)	3484 (503)	3555 (508)
Aust. Capital Territory**	215 (391)	235 (422)	239 (423)	245 (427)	264 (453)
Victoria	2412 (463)	2485 (469)	2528 (469)	2612 (478)	2693 (487)
Tasmania	175 (355)	179 (359)	199 (395)	192 (378)	204 (399)
South Australia	626 (396)	630 (394)	683 (423)	676 (415)	712 (435)
Northern Territory	368 (1711)	398 (1801)	417 (1838)	441 (1915)	468 (2023)
Western Australia	933 (441)	994 (456)	1002 (446)	1026 (447)	1097 (466)
Australia	9730 (463)	10166 (475)	10451 (480)	10677 (484)	10998 (493)
New Zealand	2071 (490)	2106 (493)	2280 (528)	2385 (546)	2381 (541)

* NSW population excludes residents of the Southern Area Health Service
 ** ACT population includes residents of the Southern Area Health Service (Medical services in the ACT service the Southern Area Region of NSW)

AUSTRALIA

For those <15 years, peritoneal dialysis was used in 74%, compared with 28% for 15-24 years, 24% for 25-34 years, 19% for 65-84 years and 12% for ≥ 85 years.

Relative to State/Territory population, the highest prevalence rate of dialysis patients was in the Northern Territory (2,023 per million), with rates in other States/Territories ranging from 508 per million in New South Wales to 435 per million in South Australia and 399 per million in Tasmania (Figure 4.2).

The age distribution of Patients is shown in Figure 4.4.

Figure 4.3

Method and Location of Dialysis

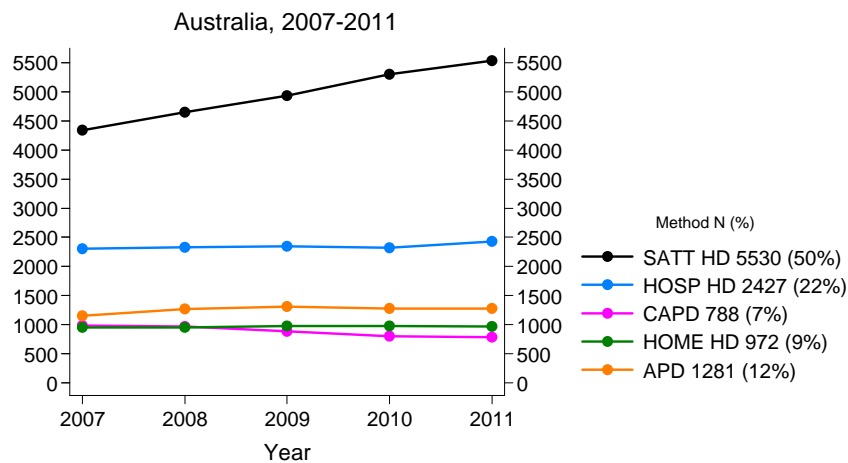


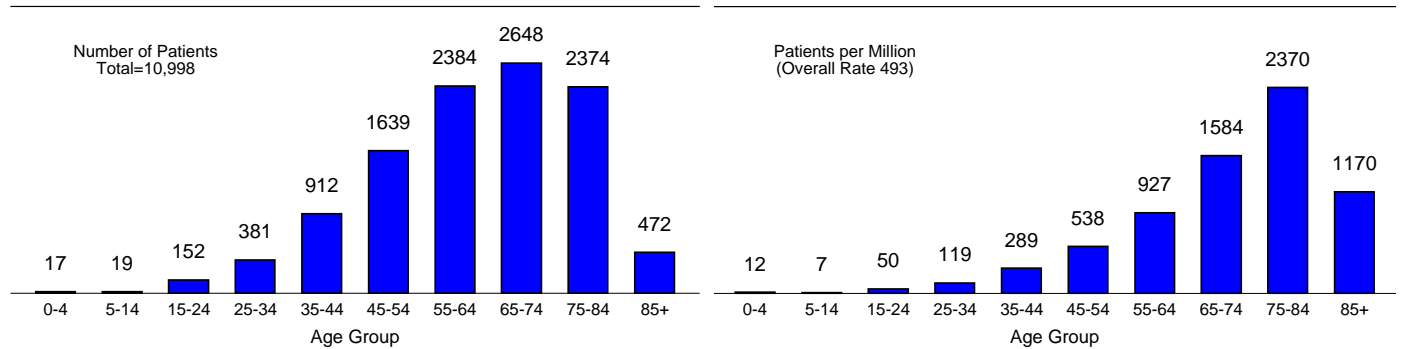
Figure 4.4

Prevalent Dialysis Patients (Australia)

31 December 2011

Prevalent Dialysis Patients (Australia)

31 December 2011





NEW ZEALAND

New Zealand data are shown in Figures 4.1, 4.2, 4.5 and 4.6.

There was an decrease of four dialysis patient in 2011 (2381 patients from 2,385), after rises of 4% last year and 8% in 2009.

There were increases in five of the age groups in 2011. The increases ranged from 9% (4 and 5 patients) in the 15-24 and 85+ age groups to 10% (16, 21 and 14 patients) in the 45-54, 55-64 and 65-74 year age groups.

Fifty one percent of patients were treated with a form of home dialysis (of whom 50% were peritoneal dialysis patients). Numbers treated with automated peritoneal dialysis were similar in 2011 to 2010 (Figure 4.5)

In 2011, continuous ambulatory peritoneal dialysis decreased to 439 patients (compared with 477 in 2010) following a increase from 403 patients in 2009.

Together, hospital haemodialysis and satellite dialysis accounted for 48% of patients in 2011, the same as the previous two years. Satellite haemodialysis numbers decreased 9% in 2011 (368 patients), after increases of 5% (396 patients) in 2010 and 8% (413 patients) in 2009.

In contrast to Australia a greater percentage of patients were at home. Of those not at home, a greater proportion were in hospital rather than satellite HD.

Figure 4.5

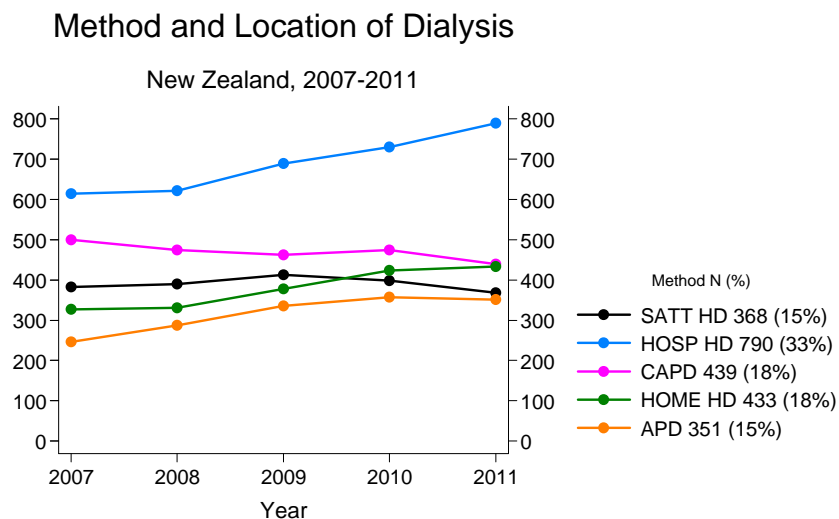


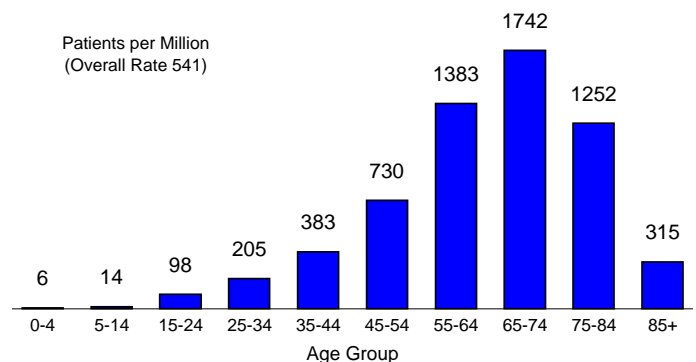
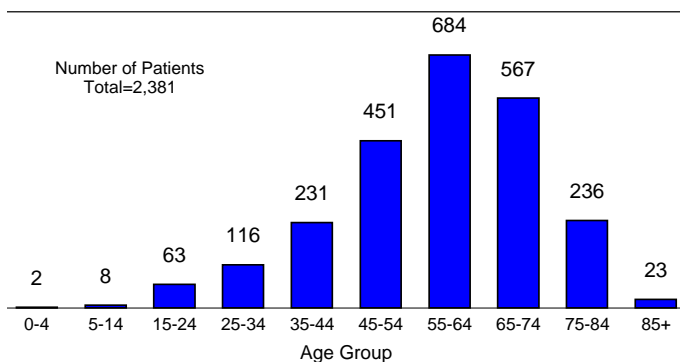
Figure 4.6

Prevalent Dialysis Patients (New Zealand)

31 December 2011

Prevalent Dialysis Patients (New Zealand)

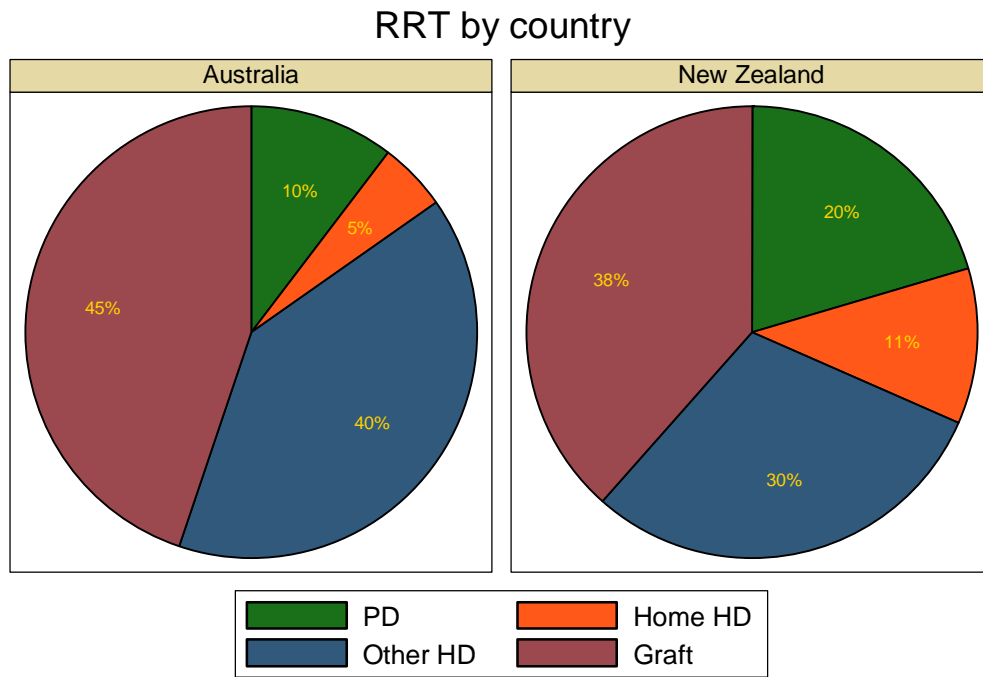
31 December 2011



Home RRT modalities by country

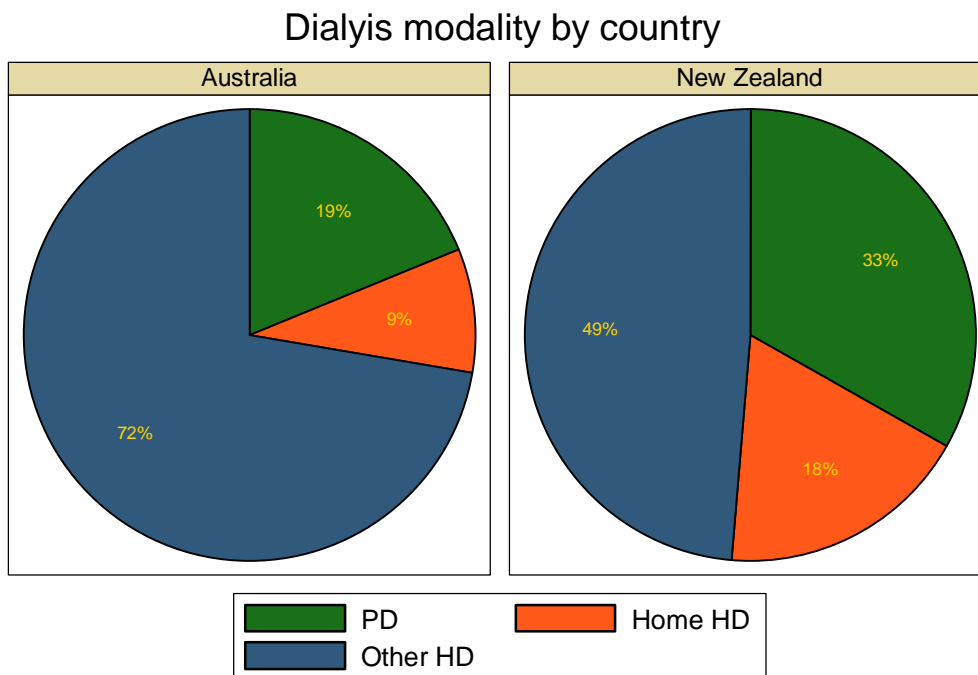
The remainder of the chapter explores differences in home-based renal replacement therapies (peritoneal dialysis, home haemodialysis and transplantation). Figures 4.7 and 4.8 shown the distribution of prevalent renal replacement modality by country. Home dialysis therapies (HD and PD) are utilized more frequently in New Zealand, although the prevalence of transplantation is higher in Australia.

Figure 4.7



Modality at end 2011

Figure 4.8



Modality at end 2011, dialysis only



The variation in renal replacement therapy modality between states at the end of 2011 is shown in Figures 4.9 and 4.10. There is considerable variation in the pattern between states, both in the split of patients treated with kidney transplantation vs dialysis and between the differing modalities of dialysis

Figure 4.9

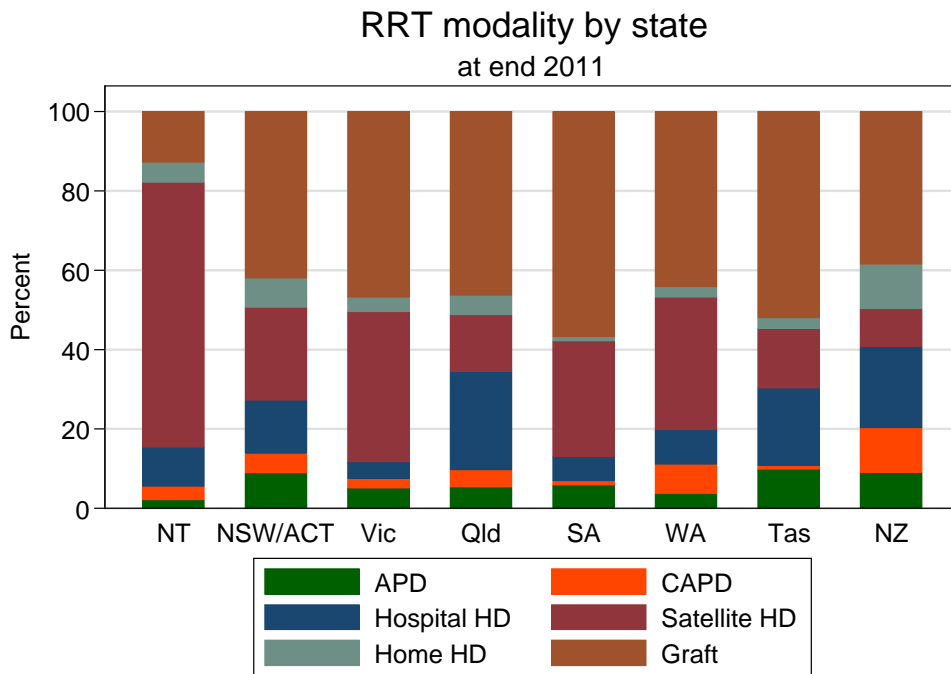
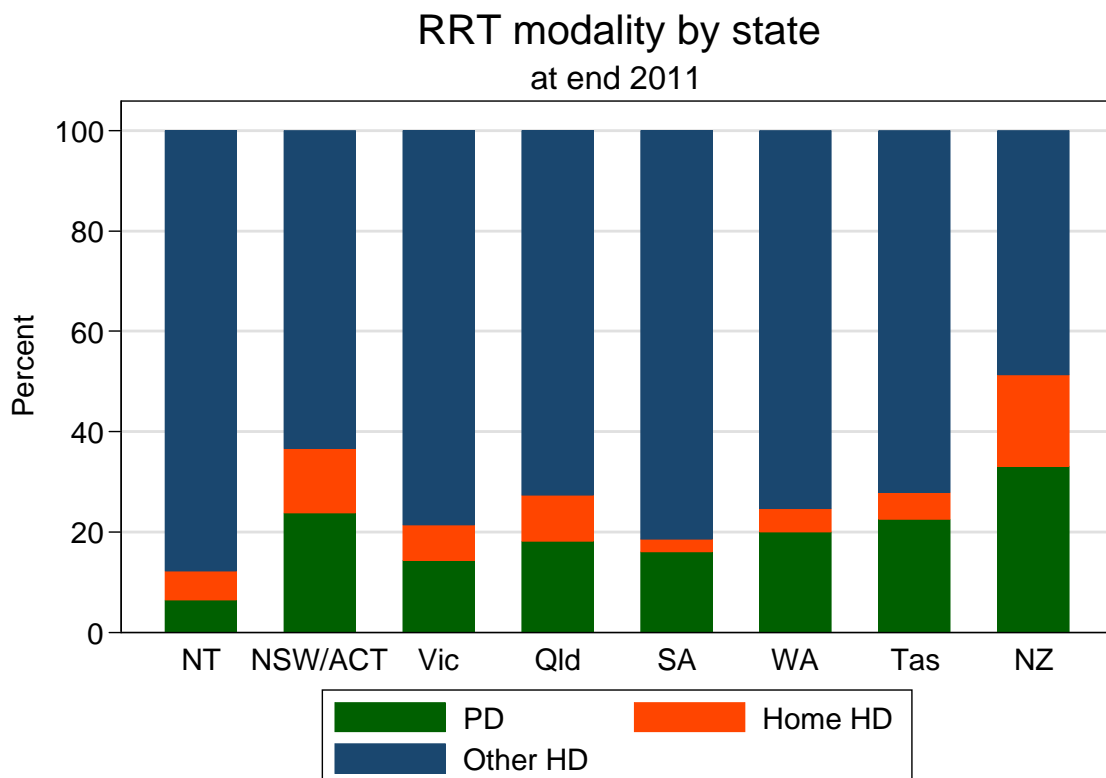


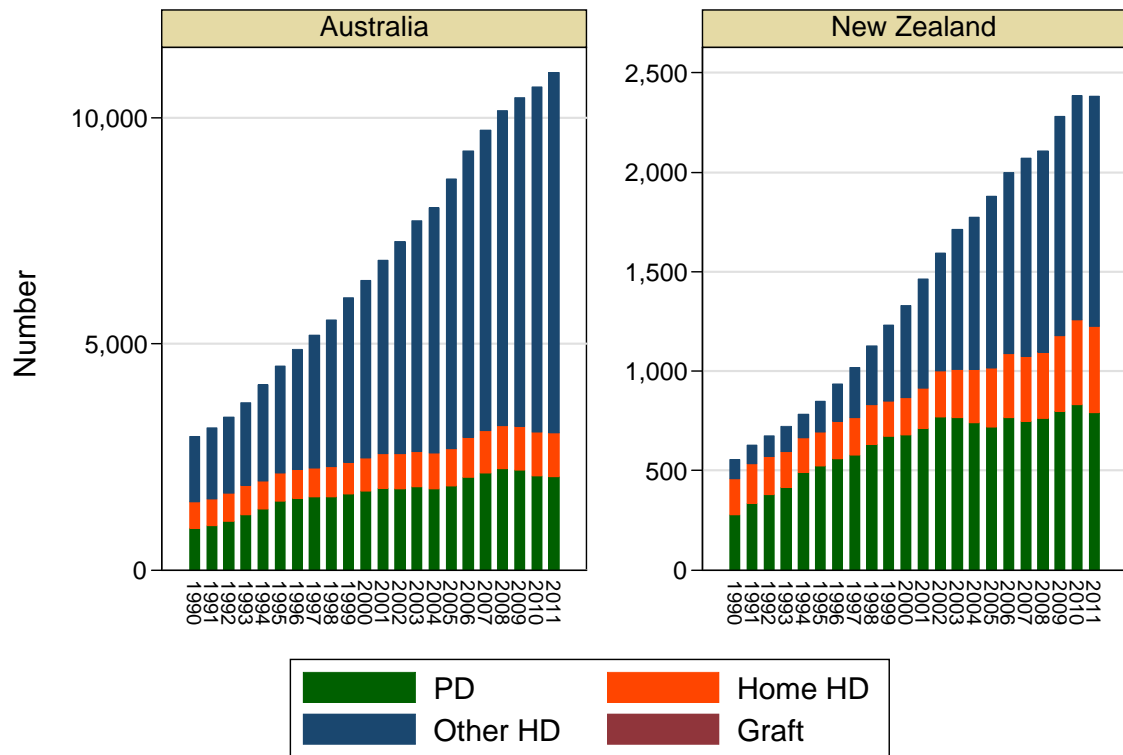
Figure 4.10



Home Dialysis Over Time

There has been a growing interest in home therapies in recent years; the temporal trends in utilisation of home dialysis therapies are shown in Figure 4.11. For Australia, although there has been some increase in numbers over the last 10 years treated with both home haemodialysis and home peritoneal dialysis, this increase is less than the overall increase in number of prevalent patients, hence the proportion treated at home has fallen. For New Zealand, there has been continued growth in home haemodialysis over the last 5-10 years, but it can be seen the proportion of patients treated at home is also falling over time.

Figure 4.11



Prevalent numbers at year end

The trends in home dialysis modality utilisation between states, and across age groups, are shown in Figures 4.11 - 4.14.

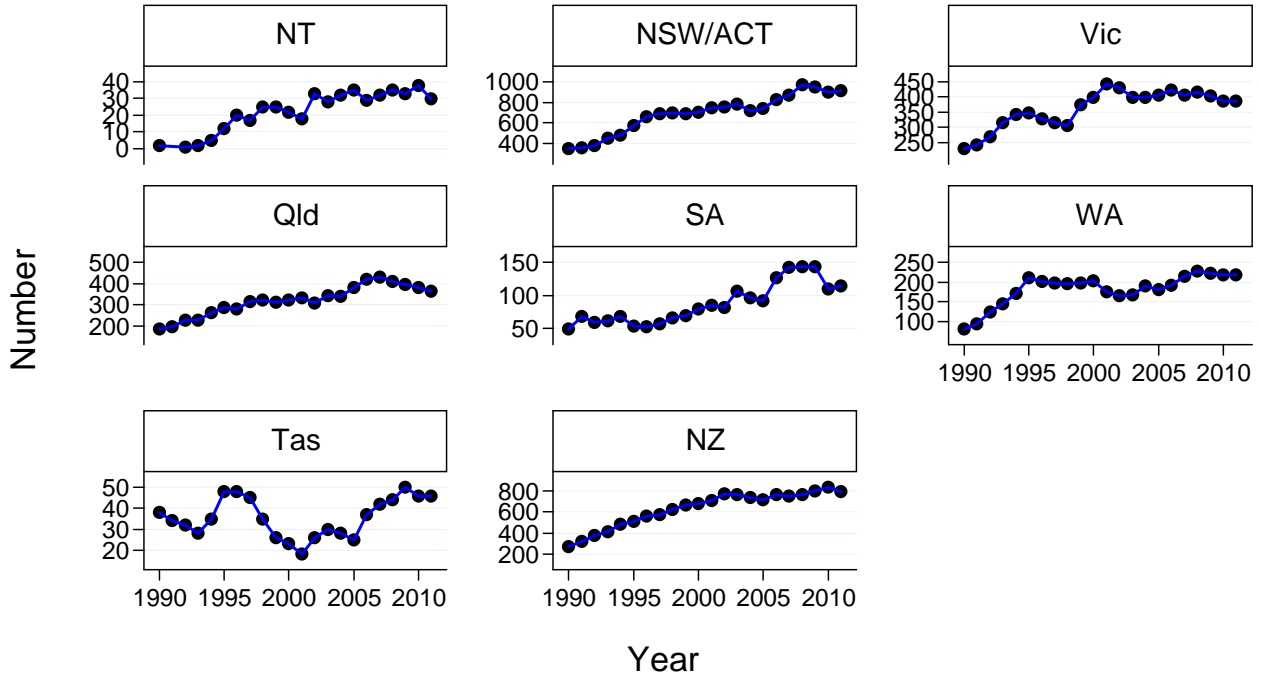
There have been different patterns in utilisation of these therapies in different states. Perhaps the most striking example is WA where there has been a large increase in the numbers receiving home HD, whereas the numbers receiving PD treatment have been static.

For both countries strong growth is seen in numbers of home HD patients in all age groups over 45 years. In contrast, numbers of people treated with PD are stable or in many cases falling.



Figure 4.12

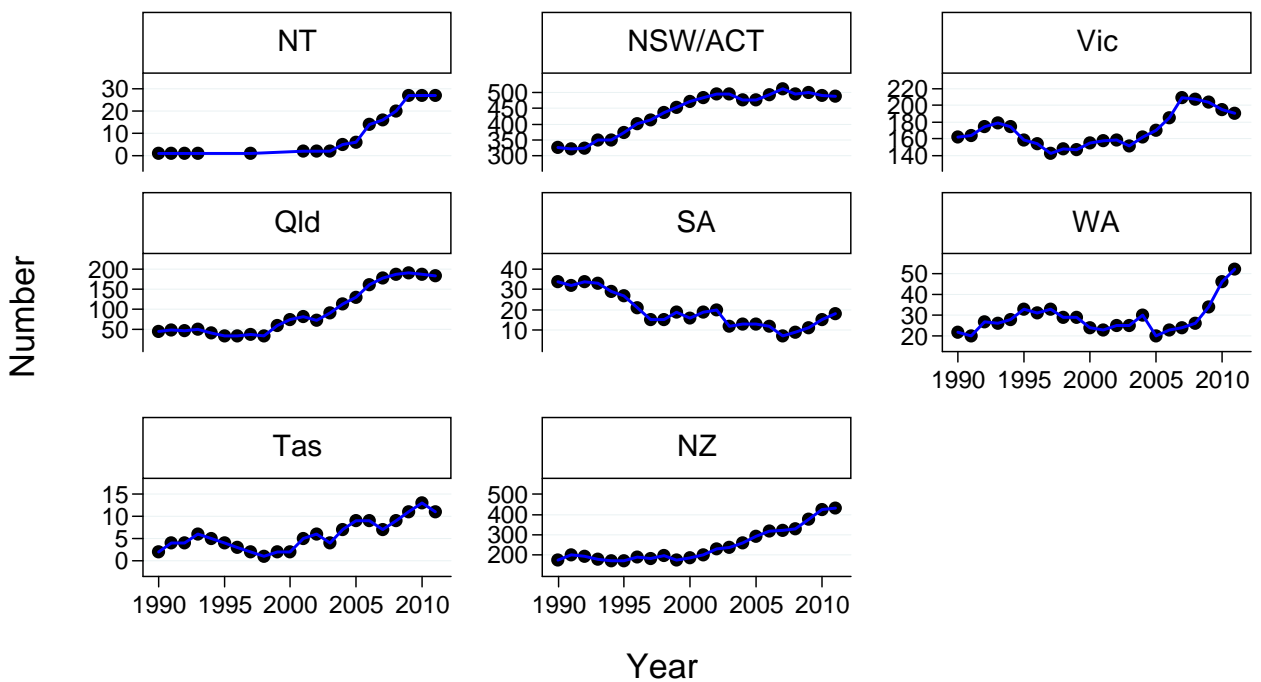
PD numbers at end year



ANZDATA, prevalent numbers

Figure 4.13

Home HD numbers at end year



Graphs by Current state

Figure 4.14

Home HD numbers at end year

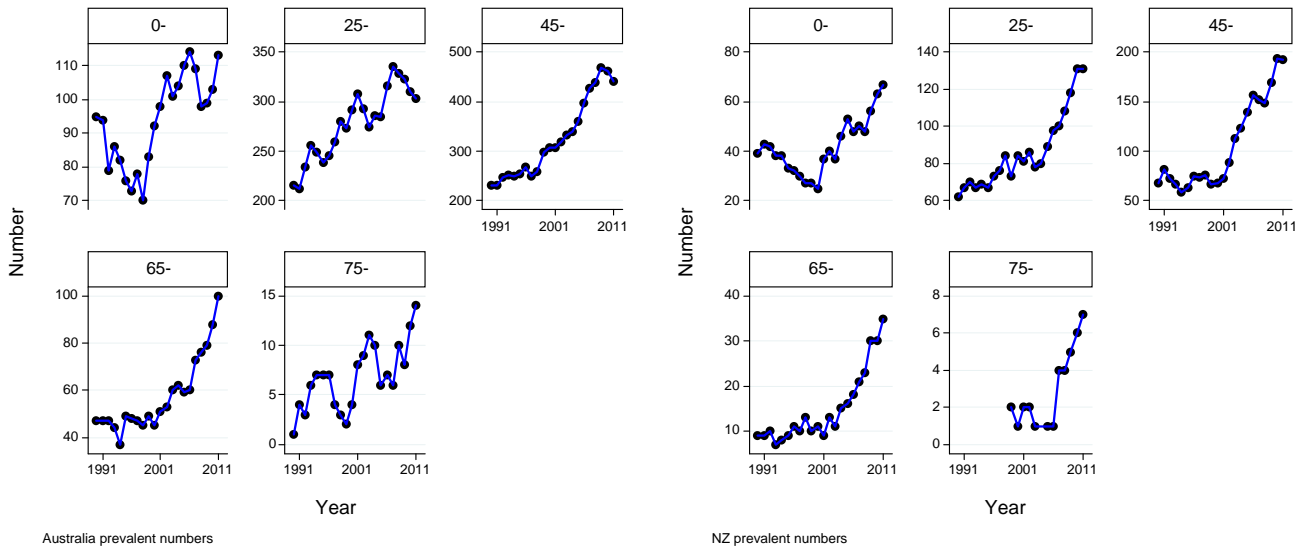


Figure 4.15

PD numbers at end year

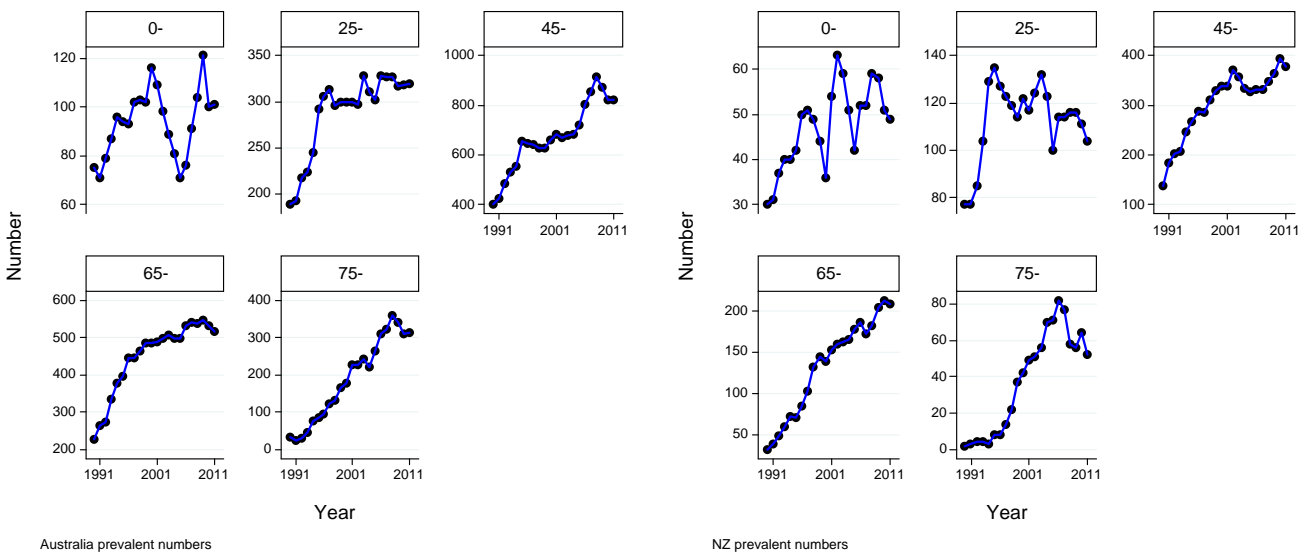




Figure 4.16 shows the numbers of patients (of all ages) in each state performing home dialysis modalities, compared with other (satellite and incentre) HD.

Figure 4.16				
Home Modality (HD & PD) numbers by States				
Current state	PD	Home HD	Other HD	Total
NT	30	27	411	468
NSW/ACT	910	489	2,420	3,819
Vic	387	191	2,115	2,693
Qld	363	184	1,458	2,005
SA	114	18	580	712
WA	219	52	826	1,097
Tas	46	11	147	204
NZ	790	433	1,158	2,381
Total	2,859	1,405	9,115	13,379

The information in figure 4.17 shows in more detail the trend in each of the home modalities by state (≥ 65 years) over the past 5 years. Figure 4.16 shows the numbers receiving each of the dialysis modalities at the end of 2011 by treating jurisdiction.

Figure 4.17										
Home Dialysis ≥ 65 years										
By Australian State and Country										
Year	Dialysis	Australia								New Zealand
		NT	NSW/ACT	Vic	Qld	SA	WA	Tas	Total	
2007	PD	3	430	174	195	65	96	20	983	301
	Home HD	1	88	38	28	0	0	2	157	58
2008	PD	5	472	169	172	79	101	23	1021	281
	Home HD	1	97	45	36	0	4	2	185	58
2009	PD	5	489	164	176	74	101	21	1030	298
	Home HD	1	101	43	37	0	5	2	189	66
2010	PD	8	474	166	157	65	95	21	986	331
	Home HD	1	102	47	41	3	8	4	206	70
2011	PD	5	459	169	146	60	97	25	961	317
	Home HD	1	109	47	45	4	9	4	219	78