CHAPTER 12

END-STAGE KIDNEY DISEASE AMONG INDIGENOUS PEOPLES OF AUSTRALIA AND NEW ZEALAND

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INTRODUCTION

In this chapter, rates of end-stage kidney disease among the Indigenous Peoples of Australia and New Zealand are substantially increased compared with the non-indigenous comparisons.

We have extended the analyses of treated ESKD among indigenous people, and drawn together analyses from elsewhere in the report into a separate chapter. For some tables, we have also included data on Maori and Pacific Peoples living in Australia. While not indigenous to Australia, these have been included as useful comparators with the NZ experience of this group.

NEW PATIENTS

Figure 12.1

New Patients 2006 - 2010
(% Dialysis Patients on Haemodialysis)

		Australia			New Zealand			
Mode of Treatment		Non-Indigenous	ATSI	Total	Non-Indigenous	Maori	Pacific People	Total
2006	PD	551	31	**582**	95	47	17	**159**
	HD	1,587 (74%)	190 (75%)	**1,777**	143 (60%)	122 (72%) (72%)	62 (78%)	**327**
	Graft	73	0	**73**	13	0	0	**13**
2007	PD	531	56	**587**	83	36	13	**132**
	HD	1,547 (74%)	183 (76%)	**1,730**	139 (63%)	108 (75%)	64 (83%)	**311**
	Graft	65	0	**65**	23	3	0	**26**
2008	PD	606	51	**657**	96	35	22	**153**
	HD	1,588 (72%)	200 (80%)	**1,788**	136 (59%)	119 (77%)	65 (75%)	**320**
	Graft	100	0	**100**	21	3	0	**24**
2009	PD	547	35	**582**	124	53	22	**199**
	HD	1,545 (74%)	158 (82%)	**1,703**	158 (56%)	121 (70%)	81 (79%)	**360**
	Graft	115	2	**117**	22	2	0	**24**
2010	PD	445	35	**480**	86	47	28	**161**
	HD	1,513 (77%)	163 (82%)	**1,676**	143 (62%)	105 (69%)	78 (74%)	**326**
	Graft	101	0	**101**	14	2	0	**16**
	Total	**10,914**	**1,104**	**12,018**	**1,296**	**803**	**452**	**2,551**

Figures 12.1 - 12.7

Australia

A total of 193 Aboriginal and Torres Strait Islander People commenced dialysis during 2010.

The majority (82%) were treated with haemodialysis; in 2010 the number of people commencing PD (35 patients) was the same as 2009.

New Zealand

The number of Maori and Pacific People starting dialysis decreased in 2010 (152 patients and 106 patients) respectively.

47 Maori patients commenced on PD in 2010 while the number of Pacific People starting PD increased from 2009 (28/22).

Figure 12.2

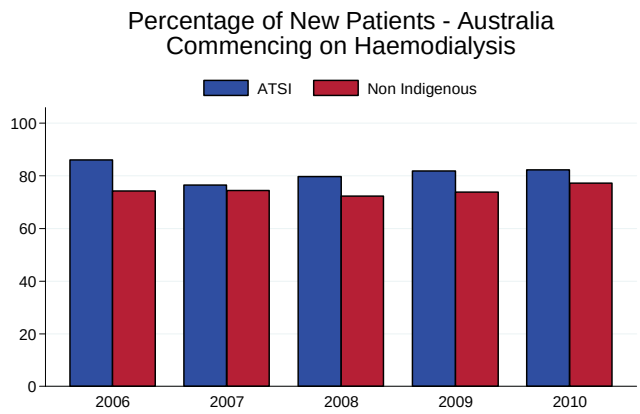
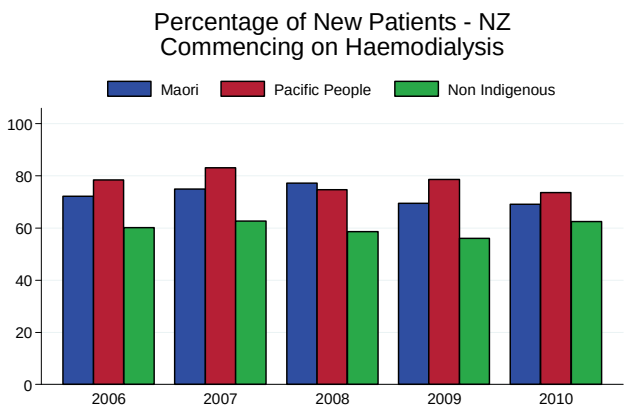


Figure 12.3



INCIDENCE RATE

Overall, the incidence rate (per million population) of indigenous people is considerably greater than that for non-indigenous people. Direct comparisons are confounded by the different age distributions - the indigenous population is considerably younger than the non-indigenous population. However, there does appear to have been a stabilisation of incident rates among Aboriginal Australians and Maori. In contrast, rates among Pacific Peoples in New Zealand have increased in the last few years. This must be viewed with caution, as there may be issues with ascertainment of an appropriate denominator. The relative rate differs with age and also with gender - this is illustrated in Figure 12.5.

Figure 12.4

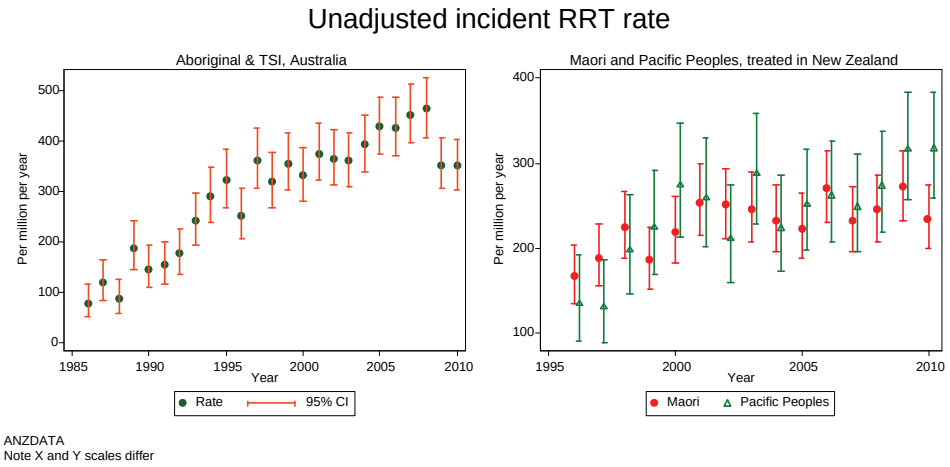
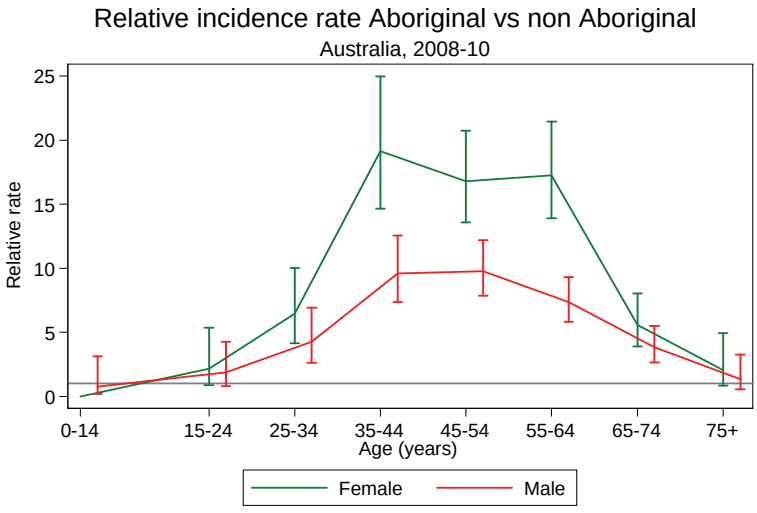
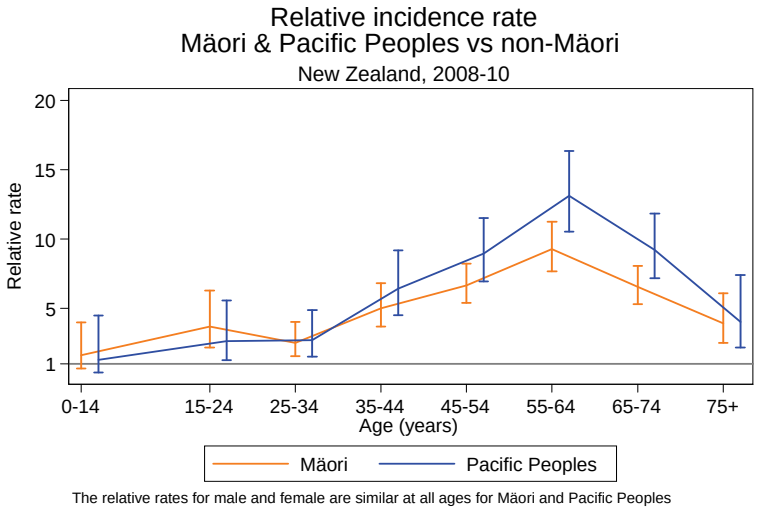


Figure 12.5



Among Aboriginal Australians, there is a marked excess relative rate among those aged 35-64 years. The relative rate is higher among females than males.



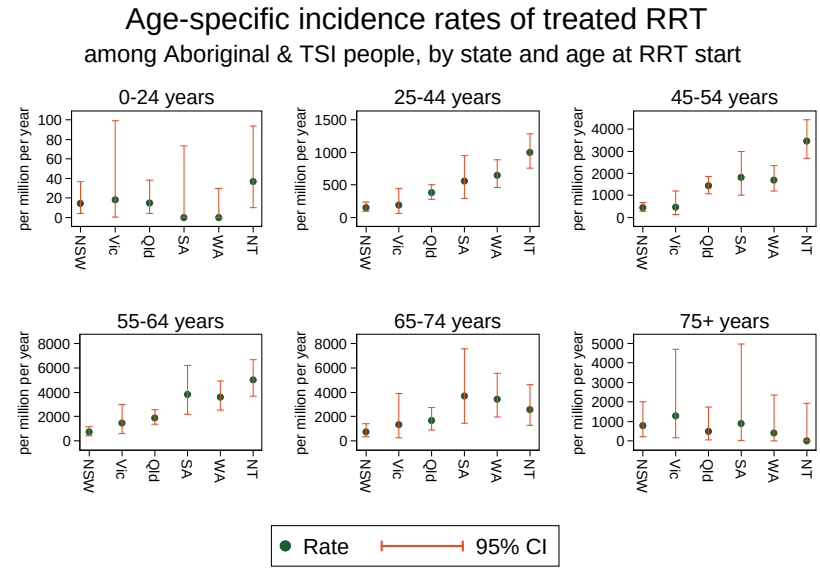
Among Maori and Pacific People the excess rate is concentrated among older groups, and there is no gender difference.

The relative rates for male and female are similar at all ages for Mäori and Pacific Peoples

There is also considerable variation between Australian jurisdictions in the Aboriginal/TSI RRT incident rates. The incidence rates for each State/Territory can be seen in Figure 12.6.

While rates for the very young (<15 years) and older (>65 years) groups are similar in each State/Territory, the rates for people 25-65 years of age show a clear trend of progressively higher rates from NSW/Victoria to Queensland then South Australia, Western Australia and the Northern Territory. Data is shown for a three year period given the small numbers in some locations.

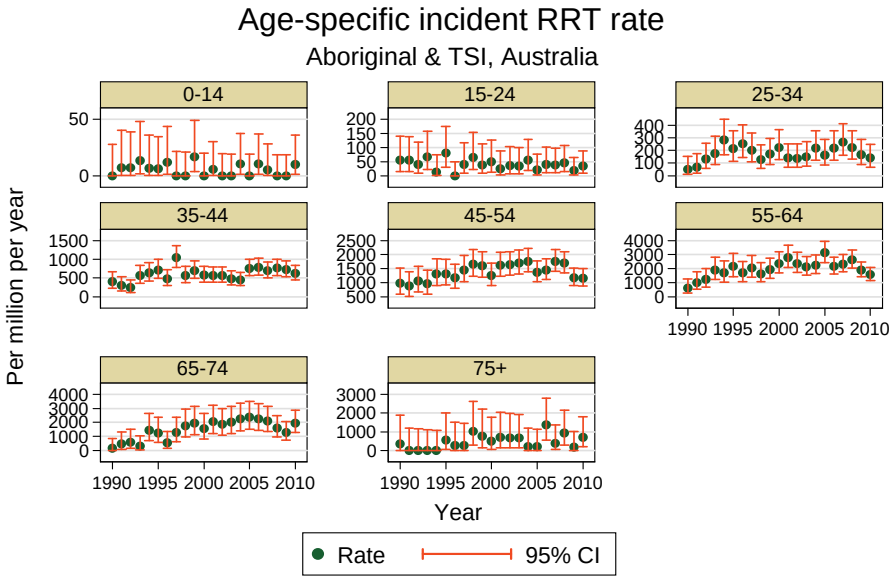
Figure 12.6



ANZDATA and ABS data, 2008-10

The overall stabilisation of rates among Aboriginal Australians is seen consistently across each age group. In some age groups (such as 45-64 years) there is a suggestion of a downwards trend. There are a number of factors which contribute to incident numbers of RRT (among both indigenous and non-indigenous people). It is not clear whether this stabilisation reflects the underlying rates of diabetes, rates of disease progression, referral patterns or other diseases.

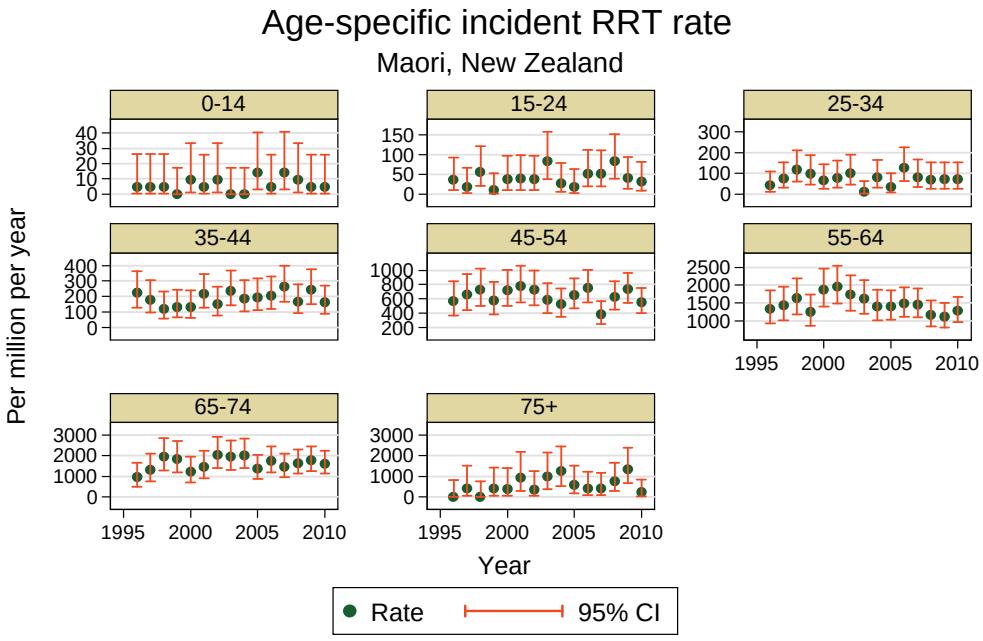
Figure 12.7



note: Y axis scales differ

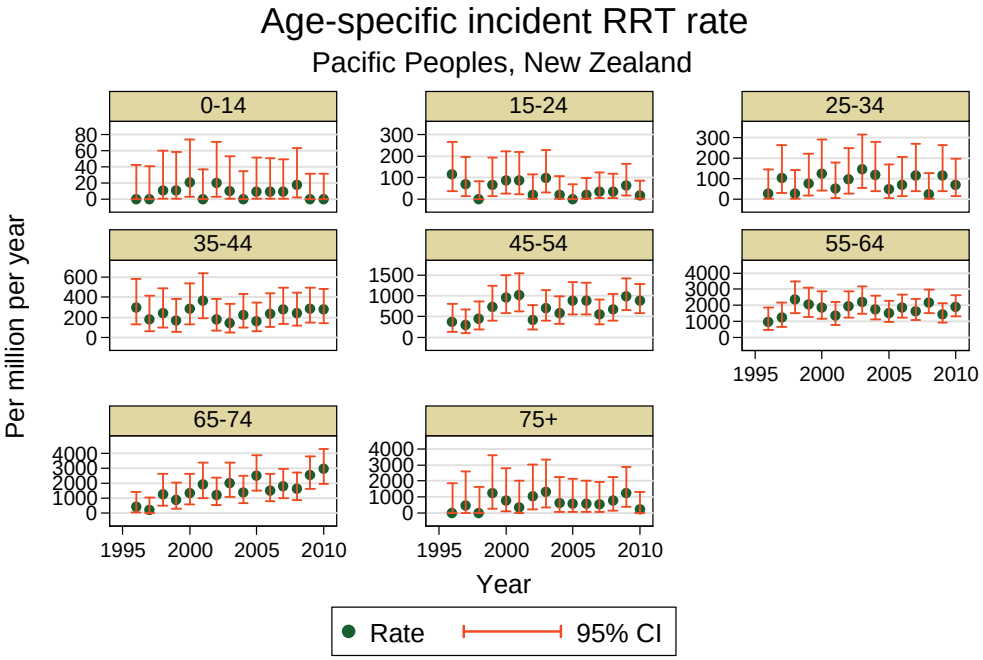
Age specific trends for Maori and Pacific Peoples are shown in Figures 12.8 and 12.9. Rates for most age groups are stable. An exception is the 65-74 year age group for Pacific Peoples in New Zealand.

Figure 12.8



note: Y axis scales differ

Figure 12.9



note: Y axis scales differ

NEW TRANSPLANTS

In both Australia and New Zealand numbers of transplants to indigenous recipients were low.

Australia

Twenty eight transplant operations were performed in Aboriginal and Torres Strait Islander recipients in 2010, of which nil were from living donors.

New Zealand

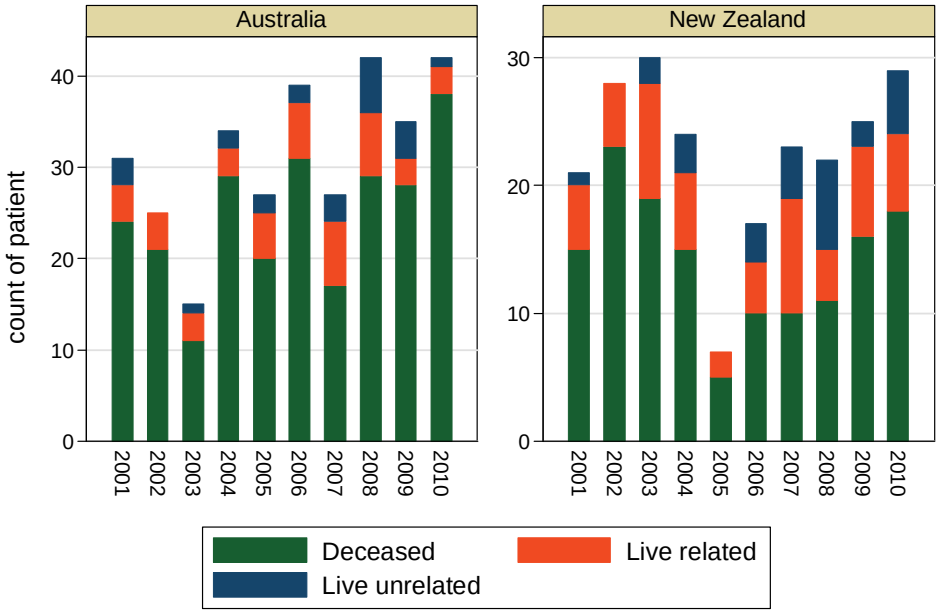
The number of Maori transplanted has decreased from eight patients in 2009 to seven patients in 2010, with 35% from living donors. Pacific People had five deceased donor and four (44%) living donor transplant in 2010.

Figure 12.10

New Transplants 2001 - 2010
(% Transplants with Living Donor)

		Australia				New Zealand		
Year	Donor Source	Non-Indigenous	ATSI	Maori	Pacific People	Non-Indigenous	Maori	Pacific People
2001	LD	206	3	1	3	37	5	1
	DD	304	18	3	3	52	10	5
	Total	**510**	**21**	**4**	**6**	**89**	**15**	**6**
2002	LD	226	0	1	3	43	3	2
	DD	353	17	1	3	46	10	13
	Total	**579**	**17**	**2**	**6**	**89**	**13**	**15**
2003	LD	214	3	0	1	33	8	3
	DD	314	10	1	0	48	8	11
	Total	**528**	**13**	**1**	**1**	**81**	**16**	**14**
2004	LD	239	4	0	1	39	5	4
	DD	377	22	1	6	42	7	8
	Total	**616**	**26**	**1**	**7**	**81**	**12**	**12**
2005	LD	239	3	0	4	44	0	2
	DD	357	19	0	1	42	3	2
	Total	**596**	**22**	**0**	**5**	**86**	**3**	**4**
2006	LD	265	3	0	5	42	4	3
	DD	337	24	5	2	31	6	4
	Total	**602**	**27**	**5**	**7**	**73**	**10**	**7**
2007	LD	261	4	1	5	45	9	4
	DD	327	14	1	2	55	8	2
	Total	**588**	**18**	**2**	**7**	**100**	**17**	**6**
2008	LD	341	7	2	4	58	7	4
	DD	430	24	0	5	42	5	6
	Total	**771**	**31**	**2**	**9**	**100**	**12**	**10**
2009	LD	320	4	2	1	58	8	1
	DD	418	20	3	5	38	11	5
	Total	**738**	**24**	**5**	**6**	**96**	**19**	**6**
2010	LD	292	0	1	3	49	7	4
	DD	512	28	1	9	32	13	5
	Total	**804**	**28**	**2**	**12**	**81**	**20**	**9**

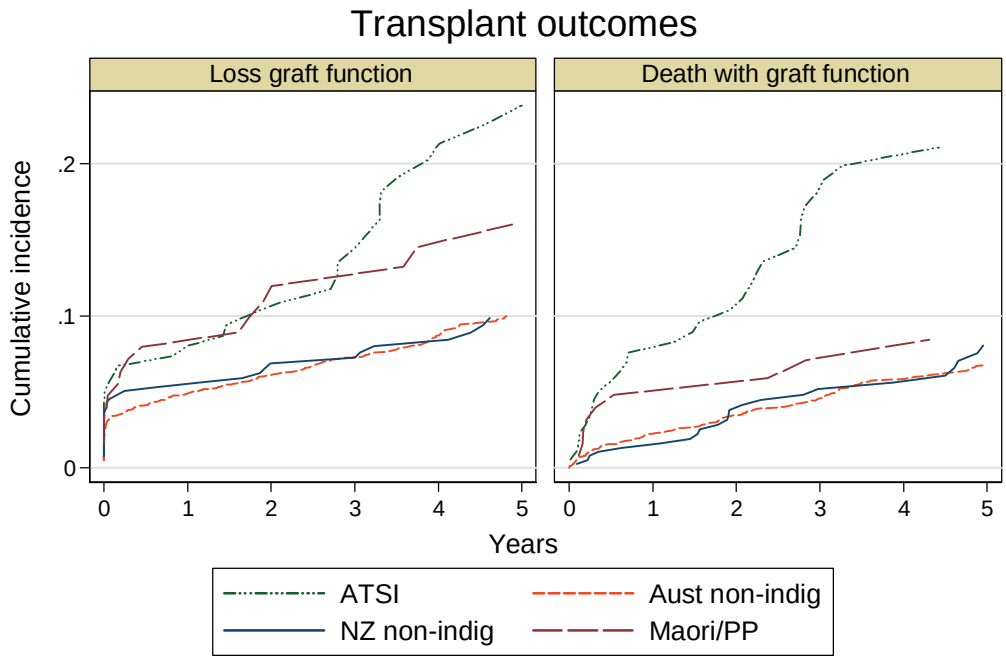
Figure 12.11
Indigenous Transplant Numbers



Indigenous transplants numbers
ATSI in Australia, Maori and PP in New Zealand

Cumulative incidence curves (utilising competing risk techniques) are shown for transplant outcomes in Figure 12.12. It can be seen that for Aboriginal and TSI, there are higher rates of loss of graft function, and substantially higher rates of death with graft function. Both of these differences are progressive. Lesser differences are seen for Maori / PP. In particular, the excess death rate among Maori/PP stabilises after the initial months.

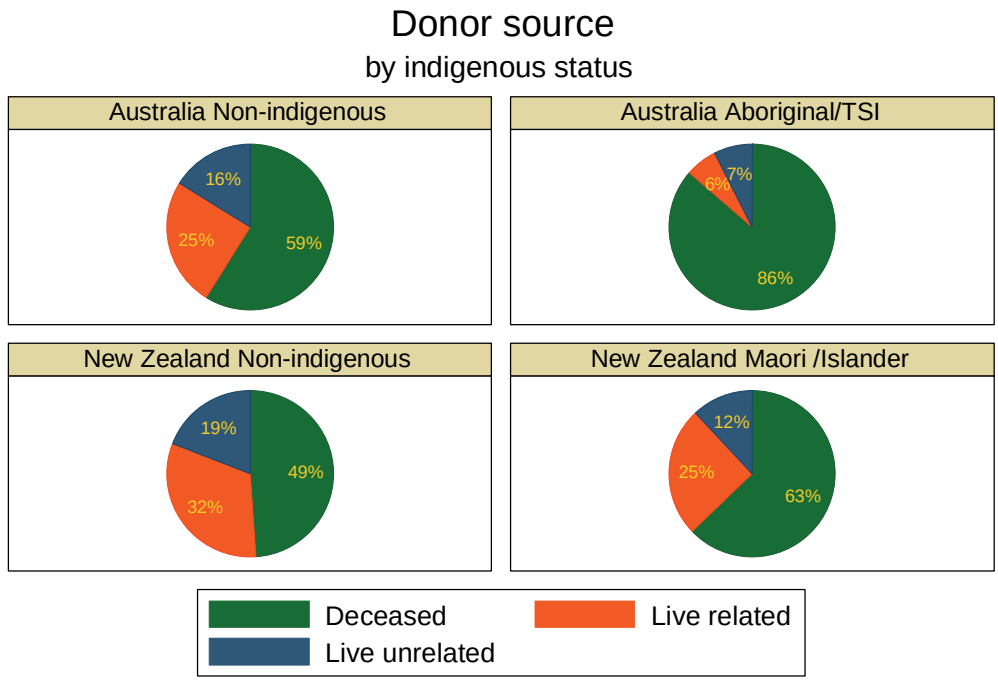
Figure 12.12



ANZDATA, all grafts 1/1/00 to 31/12/10
DD1, cumulative incidence competing risks

Information on donor source is shown in Figure 12.13. There are substantially lower rates of living donation among indigenous groups in Australia, with a lesser difference in New Zealand

Figure 12.13



ANZDATA, Donor source, grafts 1/1/01 to 31/12/10

TREATMENT OF PREVALENT PATIENTS

Australia

The number of prevalent Aboriginal and Torres Strait Islander People with treated end-stage kidney disease increased by only 2% in 2010 after a 1% increase in 2009.

The percentage of ATSI on home haemodialysis was 7% in 2010.

The percentage of ATSI treated with peritoneal dialysis was steady in 2010 after an decrease of 16% in 2009.

New Zealand

The number of prevalent Maori with treated end-stage kidney disease rose by 4% whilst Pacific People increased by 11% in 2010.

The percentage of Maori (26%) treated with home haemodialysis remains similar to past years, whilst in Pacific People this percentage (17%) has increased since 2006.

The use of peritoneal dialysis in the Maori population increased by 7% whilst in Pacific Islanders population increased by 12% in 2010.

Figure 12.14

Prevalent Patients 2006 - 2010
(% Haemodialysis Patients on Home HD)

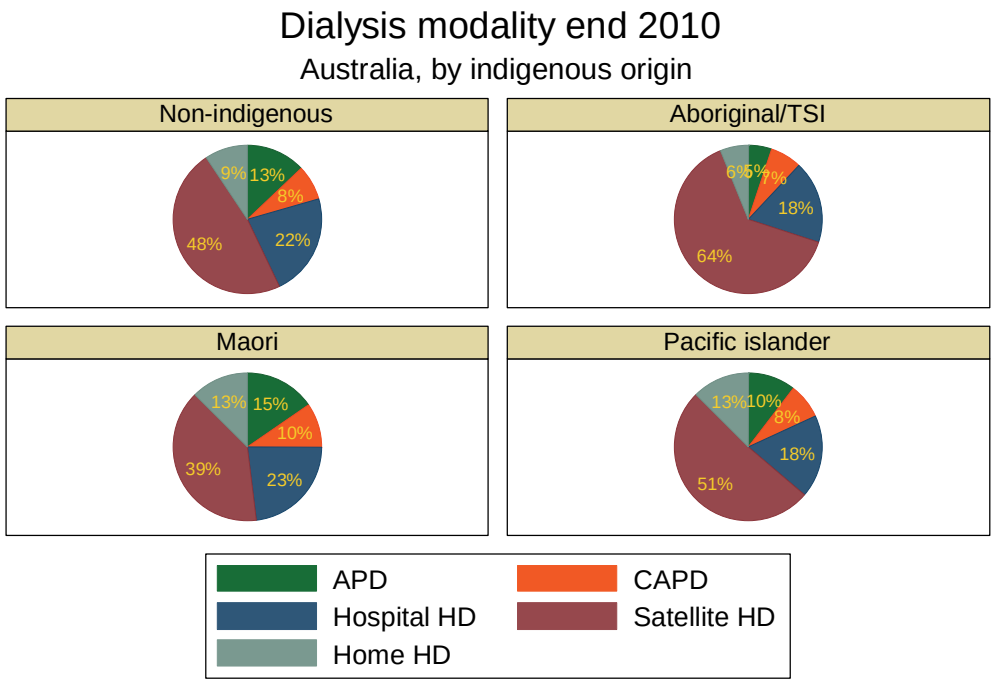
		Australia				New Zealand		
Year	Mode of Treatment	ATSI	Maori	Pacific People	Non-Indigenous	Maori	Pacific People	Non-Indigenous
2006	PD	151	11	42	1851	245	86	431
	HD	839 (6%)	49 (18%)	128 (12%)	6210 (13%)	435 (25%)	283 (13%)	511 (34%)
	Func TX*	148	28	55	6787	104	73	1068
2007	PD	158	15	48	1919	230	89	427
	HD	936 (6%)	49 (22%)	148 (15%)	6469 (13%)	456 (24%)	321 (11%)	546 (33%)
	Func TX*	148	30	57	7042	106	74	1104
2008	PD	167	23	40	2014	222	108	435
	HD	996 (5%)	56 (14%)	168 (14%)	6703 (13%)	465 (24%)	328 (13%)	551 (32%)
	Func TX*	159	29	62	7415	110	81	1157
2009	PD	143	19	46	1988	236	109	454
	HD	1040 (7%)	68 (16%)	174 (16%)	6953 (12%)	493 (26%)	379 (13%)	605 (33%)
	Func TX*	160	33	65	7800	118	84	1200
2010	PD	143	26	42	1853	253	123	457
	HD	1065 (7%)	78 (17%)	190 (15%)	7193 (12%)	506 (26%)	418 (17%)	621 (36%)
	Func TX*	177	31	73	8262	130	86	1231

* By Resident Country at 31st December

DIALYSIS MODALITY

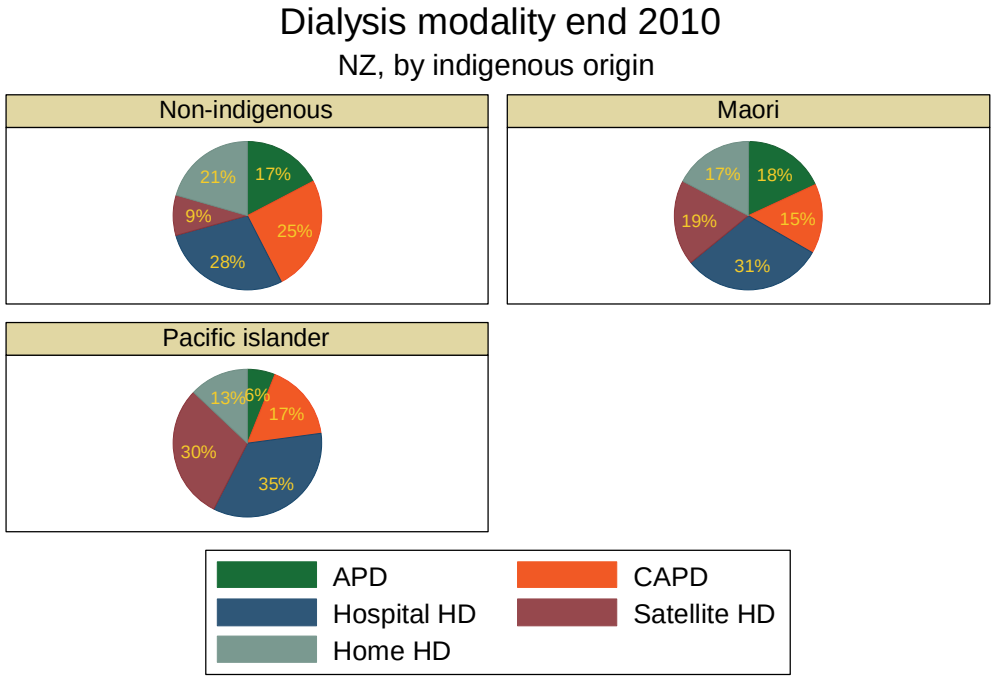
The distribution of dialysis modality is shown graphically in Figures 12.15 below. Among indigenous Australians, the principal differences are a substantially lower rate of home HD and APD; this figure also includes the experience for Maori and Pacific Peoples treated in Australia and the end of 2010. Similar data is shown for New Zealand in Figure 12.16. Again, rates of home treatments (HD and PD) are lower among the indigenous groups.

Figure 12.15



Patients at end 2010 dialysing and resident in Australia

Figure 12.16

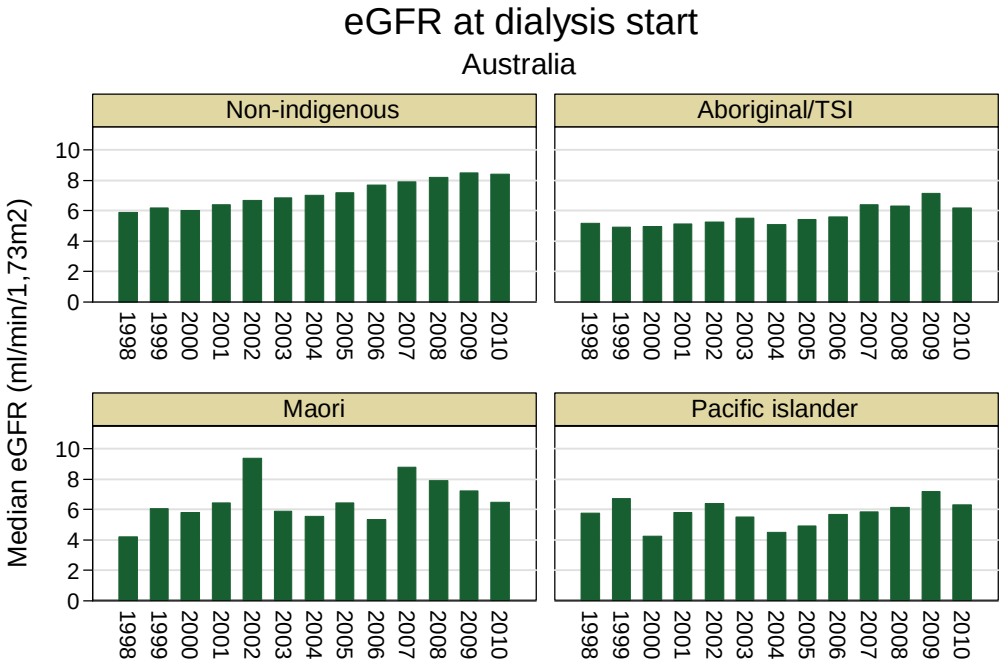


Patients at end 2010 dialysing and resident in New Zealand

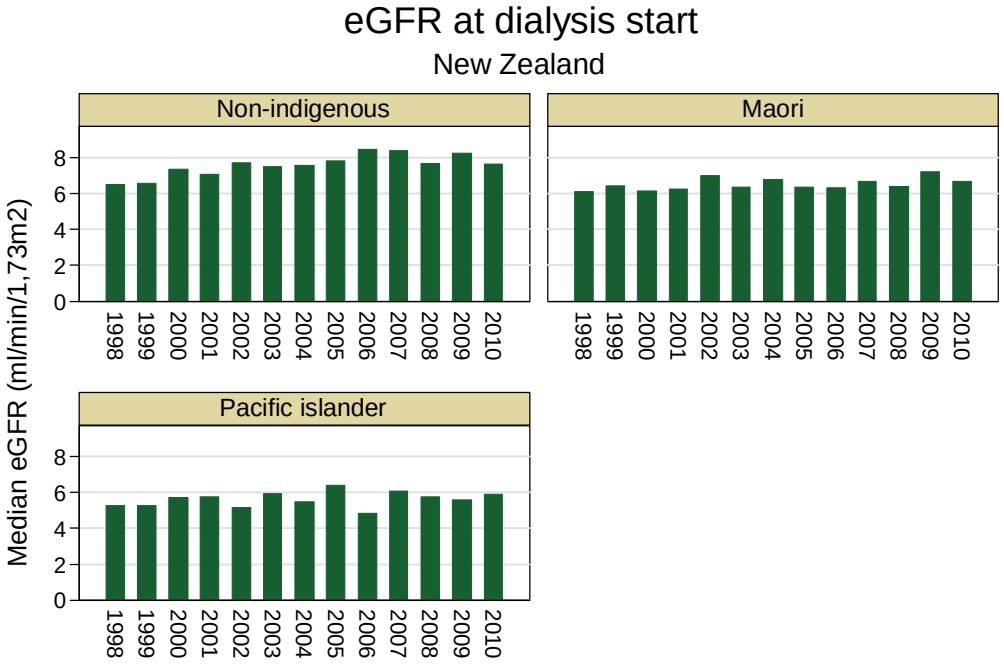
ESTIMATED GLOMERULAR FILTRATION RATE AT TREATMENT START

In both Australia and New Zealand, there has been a gradual trend to higher eGFR at the time of dialysis start, among all groups. However, there is also a consistent difference (in both countries) between indigenous and non-indigenous, with higher eGFR values among the non-indigenous groups.

Figure 12.17



Excluding pre-emptive transplants



Excluding pre-emptive transplants

INCIDENCE AND PREVALENCE BY STATE/TERRITORY

Figures 12.18 - 12.23 show various comparisons between States/Territories. This includes both incidence and treatment related information. Corresponding New Zealand data is shown in Figures 12.24 - 12.29

State Incidence

The Northern Territory has the highest national incidence among indigenous people of treated end-stage kidney disease in Australia at 743pmp, the next highest is in South Australia (527 pmp). Detailed data are given in Figure 12.30.

Dialysis by Resident State

Treatment patterns for Aboriginal and Torres Strait Islander People vary by State. The highest rates are in the Northern Territory, Western Australia and South Australia.

Transplant by Referring State

Rates of prevalent transplants vary substantially between States with highest rates in South Australia. These rates are per population, not per dialysis patient, and they reflect both background rates of kidney disease and transplant rates.

Figure 12.18

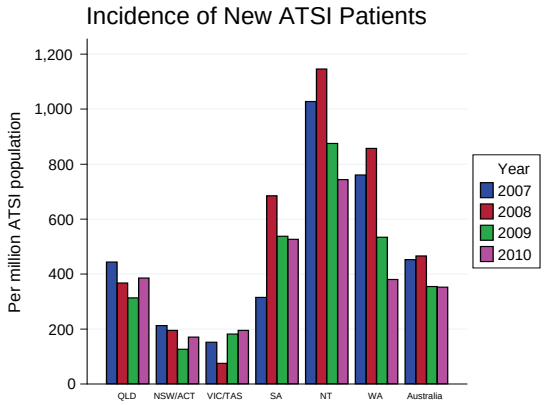


Figure 12.19

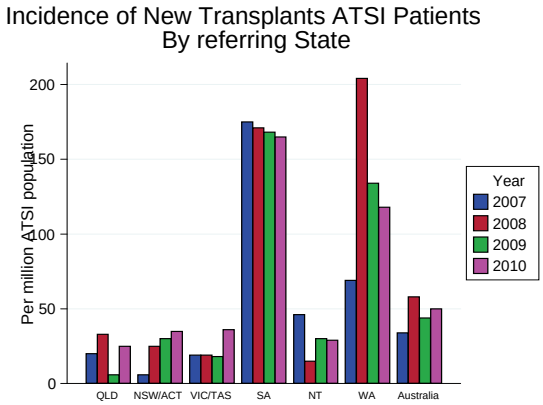


Figure 12.20

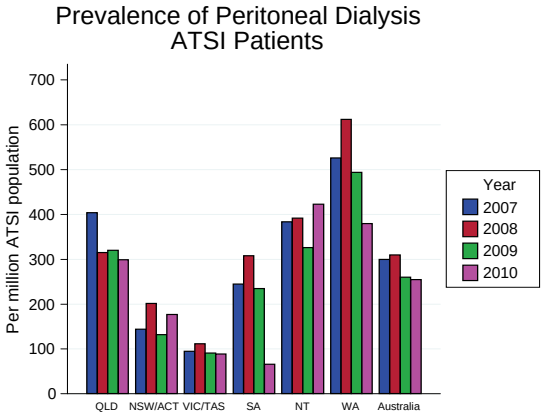


Figure 12.21

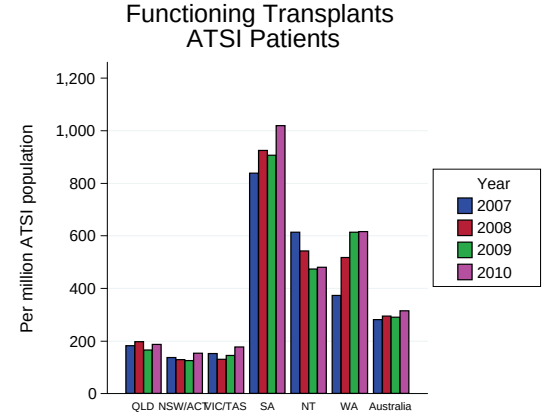


Figure 12.22

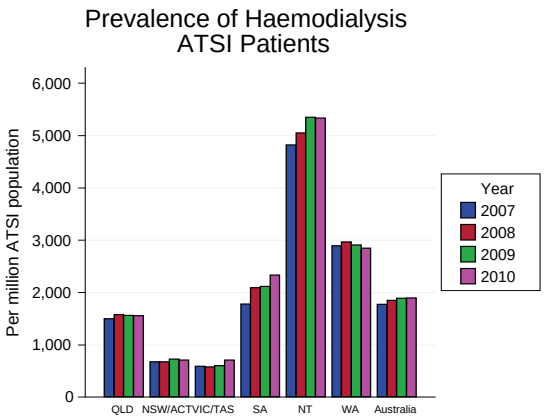
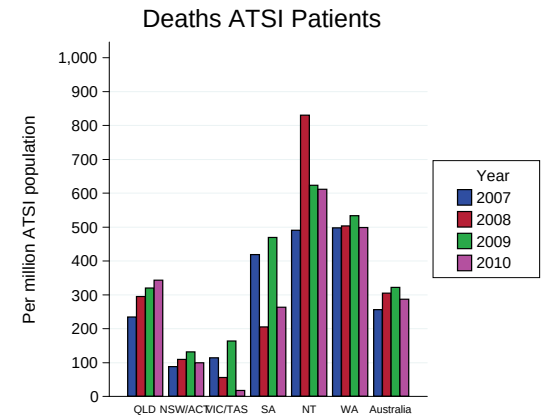


Figure 12.23



INCIDENCE AND PREVALENCE OF MAORI AND PACIFIC PEOPLE IN NEW ZEALAND

Figure 12.24

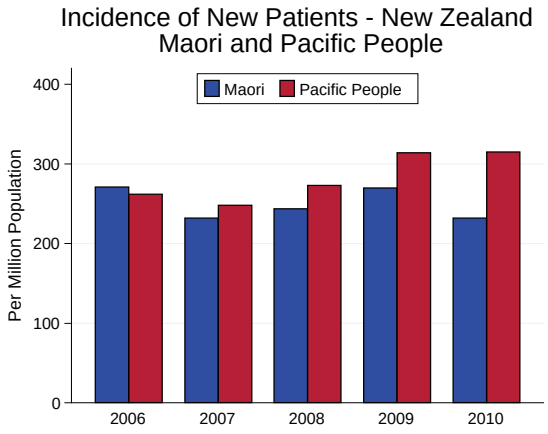


Figure 12.25

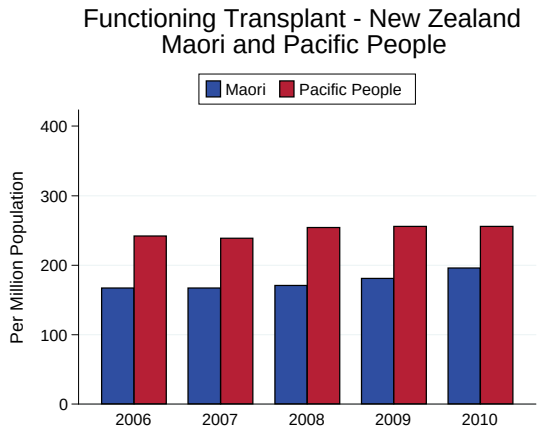


Figure 12.26

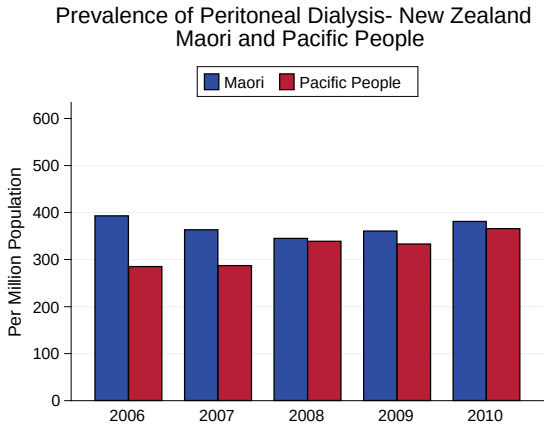


Figure 12.27

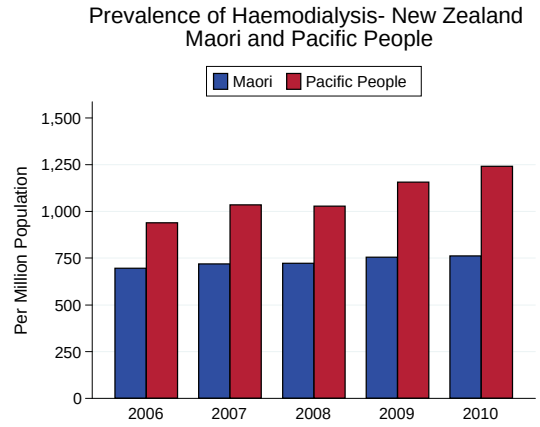


Figure 12.28

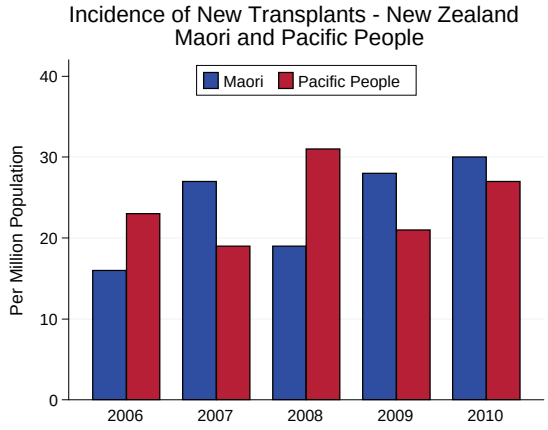
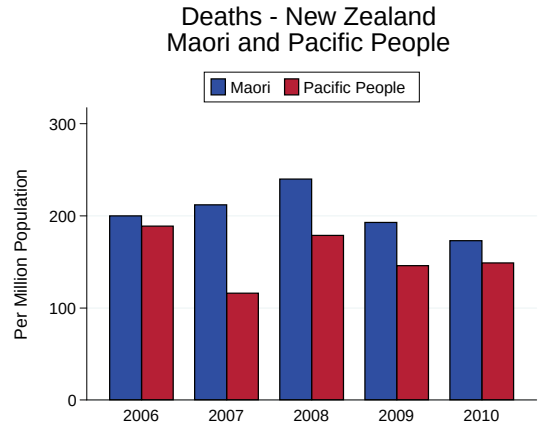


Figure 12.29



INCIDENCE AND PREVALENCE BY STATE/TERRITORY

Detailed data about States/Territories is presented in Figure 12.30.

Figure 12.30

Incidence and Prevalence - Aboriginal And Torres Strait Islanders 2006 - 2010 by Resident State

(Number per million ATSI population in each State)

		QLD	NSW/ACT	Vic/Tas	SA	NT	WA	Australia
2006	New Patients	66 (456)	22 (140)	12 (234)	15 (535)	71 (1109)	35 (493)	**221 (428)**
	Prevalent HD	192 (1325)	90 (574)	28 (545)	53 (1889)	287 (4484)	189 (2663)	**839 (1625)**
	Prevalent PD	57 (393)	21 (134)	6 (117)	2 (71)	23 (359)	42 (592)	**151 (293)**
	Functioning Transplant	28 (193)	23 (147)	8 (156)	28 (998)	39 (609)	22 (310)	**148 (287)**
	Transplant Operations*	2 (14)	7 (45)	2 (39)	5 (178)	7 (109)	4 (56)	**27 (52)**
	Deaths	47 (324)	14 (89)	8 (156)	4 (143)	46 (719)	22 (310)	**141 (273)**
2007	New Patients	66 (444)	34 (213)	8 (152)	9 (315)	67 (1028)	55 (761)	**239 (453)**
	Prevalent HD	223 (1500)	108 (675)	31 (590)	51 (1782)	314 (4820)	209 (2894)	**936 (1776)**
	Prevalent PD	60 (404)	23 (144)	5 (95)	7 (245)	25 (384)	38 (526)	**158 (300)**
	Functioning Transplant	27 (182)	22 (138)	8 (152)	24 (839)	40 (614)	27 (374)	**148 (281)**
	Transplant Operations*	3 (20)	1 (6)	1 (19)	5 (175)	3 (46)	5 (69)	**18 (34)**
	Deaths	35 (235)	14 (88)	6 (114)	12 (419)	32 (491)	36 (498)	**135 (256)**
2008	New Patients	56 (367)	32 (196)	4 (75)	20 (685)	76 (1146)	63 (857)	**251 (466)**
	Prevalent HD	241 (1580)	110 (674)	31 (578)	61 (2090)	335 (5054)	218 (2965)	**996 (1850)**
	Prevalent PD	48 (315)	33 (202)	6 (112)	9 (308)	26 (392)	45 (612)	**167 (310)**
	Functioning Transplant	30 (197)	21 (129)	7 (130)	27 (925)	36 (543)	38 (517)	**159 (295)**
	Transplant Operations*	5 (33)	4 (25)	1 (19)	5 (171)	1 (15)	15 (204)	**31 (58)**
	Deaths	45 (295)	18 (110)	3 (56)	6 (206)	55 (830)	37 (503)	**164 (305)**
2009	New Patients	49 (313)	21 (126)	10 (182)	16 (537)	59 (875)	40 (534)	**195 (355)**
	Prevalent HD	244 (1560)	121 (727)	33 (601)	63 (2116)	361 (5353)	218 (2912)	**1040 (1891)**
	Prevalent PD	50 (320)	22 (132)	5 (91)	7 (235)	22 (326)	37 (494)	**143 (260)**
	Functioning Transplant	26 (166)	21 (126)	8 (146)	27 (907)	32 (474)	46 (614)	**160 (291)**
	Transplant Operations*	1 (6)	5 (30)	1 (18)	5 (168)	2 (30)	10 (134)	**24 (44)**
	Deaths	50 (320)	22 (132)	9 (164)	14 (470)	42 (623)	40 (534)	**177 (322)**
2010	New Patients	62 (386)	29 (171)	11 (196)	16 (527)	51 (743)	29 (380)	**198 (353)**
	Prevalent HD	250 (1557)	121 (713)	40 (712)	71 (2337)	366 (5335)	217 (2847)	**1065 (1896)**
	Prevalent PD	48 (299)	30 (177)	5 (89)	2 (66)	29 (423)	29 (380)	**143 (255)**
	Functioning Transplant	30 (187)	26 (153)	10 (178)	31 (1020)	33 (481)	47 (617)	**177 (315)**
	Transplant Operations*	4 (25)	6 (35)	2 (36)	5 (165)	2 (29)	9 (118)	**28 (50)**
	Deaths	55 (343)	17 (100)	1 (18)	8 (263)	42 (612)	38 (499)	**161 (287)**

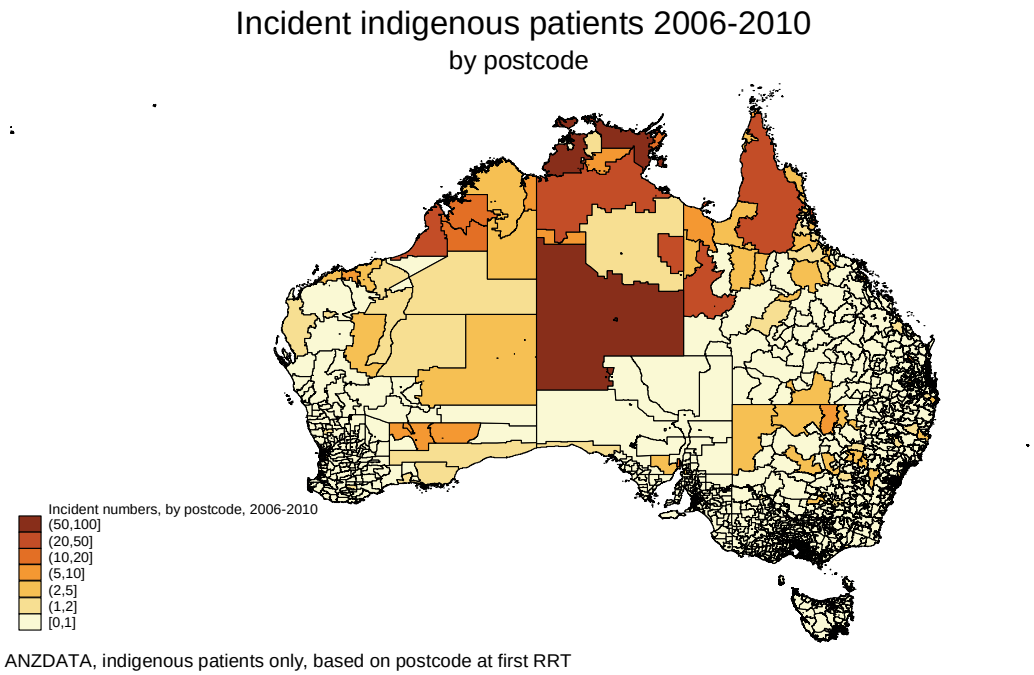
* By Referring State, not State of Transplantation

The per million population figures in this chapter have been calculated from the estimated indigenous populations of each States published in the Australian Bureau of Statistics document 3238.0 Experimental Projections of the Indigenous Population 1991 to 2009 (low series).

GEOGRAPHICAL DISTRIBUTION

Figure 12.31 shows the number of incident ATSI (patients by postcode) The distribution of prevalent dialysis patients are summarized in Figure 12.32 (by state) and 12.33 by statistical subdivision (obtained by mapping postcodes to SSD). Note that some postcodes were distributed over more than one SSD

Figure 12.31



ANZDATA, indigenous patients only, based on postcode at first RRT

Figure 12.32

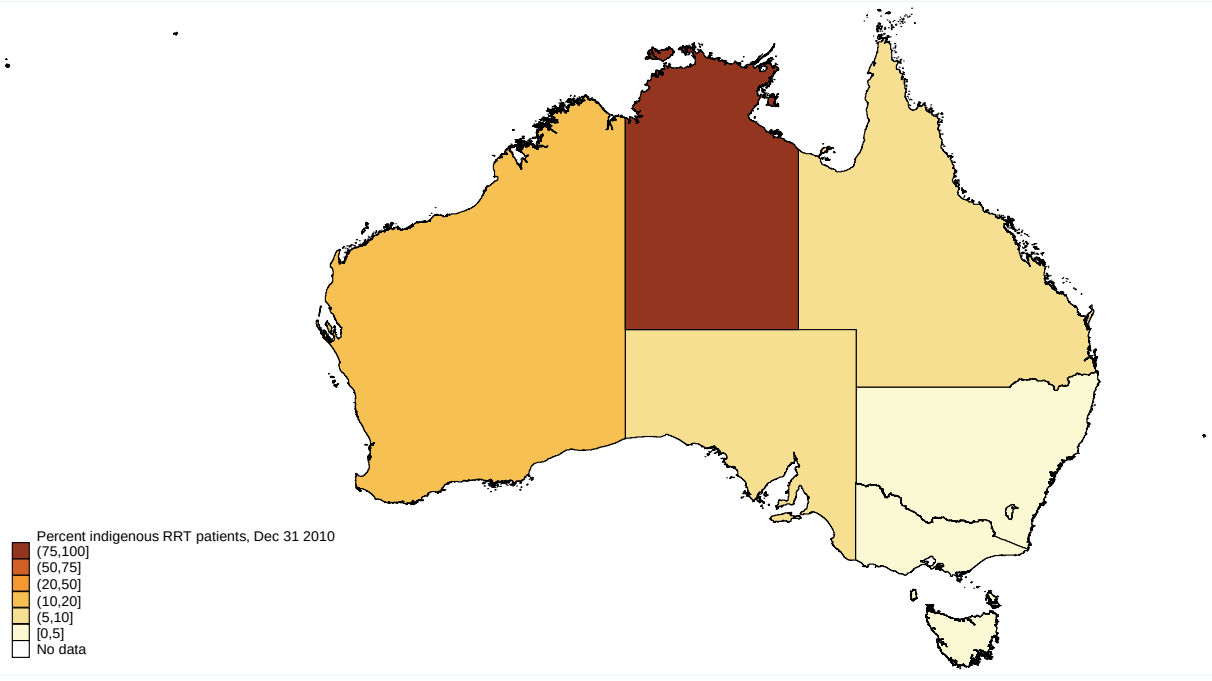
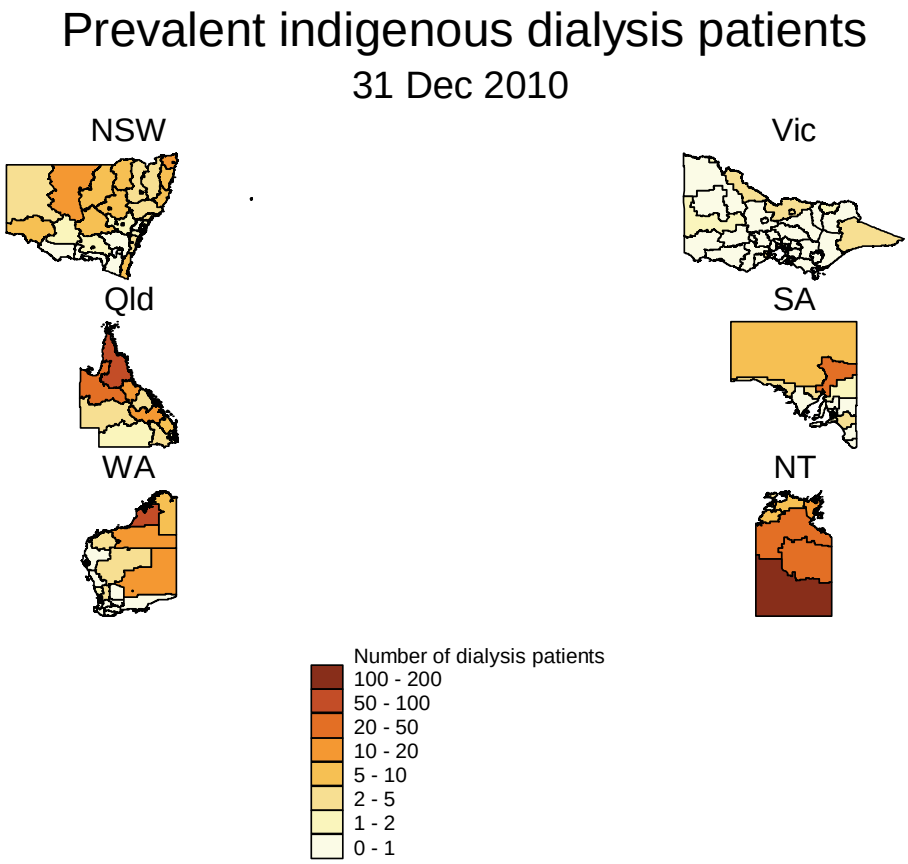


Figure 12.33



ANZDATA, based on postcode of residence reported at at end 2010 mapped to SSD using ABS concordance files

LATE REFERRAL

Australia

The percentage of Aboriginal and Torres Strait Islander People referred late for treatment has been stable for the last 3 years, and is very similar to the non-indigenous rate .Most (63%) commenced haemodialysis using a catheter rather than permanent access in 2010 (Figure 12.35); again this is a similar situation to the non-indigenous patients.

New Zealand

The total number of Maori people referred late in 2010 decreased to 19% (22/154 patients) in 2010 from an increase of 22% (19/176 patients) in 2009. Pacific People referred late increased to 16 (3/106 patients) in 2010 from a decrease of 3% (16/103 patients) the previous year. Most Maori (77%) and Pacific People (76%) commenced haemodialysis with a catheter (Figure 12.35).

Figure 12.34

Late Referral 2006 - 2010

% Late Referral of (Total Number of Patients)

	Australia				New Zealand		
Year	ATSI	Maori	Pacific People	Non-Indigenous	Maori	Pacific People	Non-Indigenous
2006	36% (221)	14% (14)	28% (39)	22% (2158)	30% (169)	18% (79)	18% (251)
2007	32% (239)	40% (10)	27% (41)	23% (2092)	16% (147)	30% (77)	20% (245)
2008	24% (251)	24% (21)	32% (41)	21% (2232)	31% (157)	22% (87)	17% (253)
2009	22% (195)	32% (22)	36% (36)	21% (2149)	22% (176)	13% (103)	15% (304)
2010	24% (198)	19% (26)	25% (40)	22% (1993)	19% (154)	16% (106)	15% (243)

VASCULAR ACCESS

For all indigenous groups in Australia and New Zealand the vascular access rates (at first HD) are stable over recent years. For both indigenous and non-indigenous groups these rates are higher in NZ than Australia.

Figure 12.35

Vascular Access Use at First ESRF Treatment
Where this is Haemodialysis 2006 - 2010

(% Using CVC)

		Australia				New Zealand		
Year	Vascular Access	ATSI	Maori	Pacific People	Non-Indigenous	Maori	Pacific People	Non-Indigenous
2006	AVF/AVG	55	3	5	626	25	15	36
	CVC	135 (71)	8 (73)	23 (82)	922 (60)	97 (80)	47 (76)	107 (75)
2007	AVF/AVG	57	3	8	632	28	12	38
	CVC	126 (69)	5 (63)	29 (78)	870 (58)	80 (74)	52 (81)	101 (73)
2008	AVF/AVG	121 (61)	8 (57)	22 (71)	936 (61)	91 (76)	56 (86)	101 (74)
	CVC	79	6	9	607	28	9	35
2009	AVF/AVG	65	8	7	659	35	30	47
	CVC	93 (59)	12 (60)	23 (77)	836 (56)	86 (71)	51 (63)	111 (70)
2010	AVF/AVG	61	7	8	591	24	20	37
	CVC	102 (63)	10 (59)	21 (72)	876 (60)	81 (77)	58 (74)	106 (74)

CAUSE OF DEATH

Australia

Cardiac events (43%) were the most common cause of death for Aboriginal and Torres Strait Islander People on dialysis, followed by “social causes” (23%) and infection (1914%). In 2010, the most common cause of death in transplanted Aboriginal and Torres Strait Islander People was infection (60%) and cardiac and “social causes” both (20%). The proportion of deaths due to infection was substantially higher than the non-indigenous rates.

New Zealand

Cardiac events were the most common cause of death in Maori (51%) and Pacific People (53%) treated with dialysis, followed by “social causes” (19%) for Maori and infection(15%) for Pacific People. In transplanted people malignancy was the most common cause of death for Maori and cardiac and infection for Pacific People, although the overall number of deaths is small.

Figure 12.36

Cause of Death 2009 - 2010

			Australia				New Zealand		
	Mode of Treatment	Cause of Death	ATSI	Maori	Pacific People	Non-Indigenous	Maori	Pacific People	Non-Indigenous
2009	Dialysis	Cardiac	59 (36%)	4 (50%)	9 (43%)	445 (33%)	63 (52%)	21 (46%)	64 (39%)
		Vascular	15 (9%)	-	1 (5%)	121 (9%)	11 (9%)	8 (17%)	13 (8%)
		Infection	31 (19%)	1 (13%)	4 (19%)	142 (11%)	16 (13%)	7 (15%)	23 (14%)
		Social	41 (25%)	1 (13%)	4 (19%)	528 (39%)	23 (19%)	7 (15%)	53 (32%)
		Malignancy	6 (4%)	2 (25%)	3 (14%)	60 (4%)	4 (3%)	2 (4%)	6 (4%)
		Miscellaneous	13 (8%)	-	-	54 (4%)	4 (3%)	1 (2%)	5 (3%)
		Total	**165**	**8**	**21**	**1350**	**121**	**46**	**164**
	Transplant	Cardiac	2 (22%)	-	-	35 (26%)	1 (20%)	1 (50%)	7 (26%)
		Vascular	-	-	-	17 (13%)	-	-	-
		Infection	5 (56%)	-	-	24 (18%)	1 (20%)	1 (50%)	1 (4%)
		Social	2 (22%)	-	-	9 (7%)	1 (20%)	-	1 (4%)
		Malignancy	-	-	-	41 (30%)	2 (40%)	-	15 (56%)
		Miscellaneous	-	-	-	10 (7%)	-	-	3 (11%)
		Total	**9**	**-**	**-**	**136**	**5**	**2**	**27**
2010	Dialysis	Cardiac	66 (43%)	5 (63%)	7 (37%)	391 (32%)	56 (51%)	25 (53%)	64 (39%)
		Vascular	19 (12%)	-	2 (11%)	114 (9%)	9 (8%)	6 (13%)	16 (10%)
		Infection	21 (14%)	1 (13%)	2 (11%)	124 (10%)	19 (17%)	7 (15%)	27 (16%)
		Social	36 (23%)	2 (25%)	4 (21%)	445 (36%)	21 (19%)	5 (11%)	43 (26%)
		Malignancy	2 (1%)	-	-	81 (7%)	1 (1%)	2 (4%)	6 (4%)
		Miscellaneous	11 (7%)	-	4 (21%)	71 (6%)	3 (3%)	2 (4%)	9 (5%)
		Total	**155**	**8**	**19**	**1226**	**109**	**47**	**165**
	Transplant	Cardiac	-	-	-	23 (16%)	3 (60%)	-	5 (21%)
		Vascular	1 (20%)	-	-	12 (8%)	-	1 (33%)	2 (8%)
		Infection	3 (60%)	-	-	33 (22%)	-	2 (67%)	2 (8%)
		Social	1 (20%)	-	-	15 (10%)	-	-	3 (13%)
		Malignancy	-	1 (100%)	-	49 (33%)	1 (20%)	-	9 (38%)
		Miscellaneous	-	-	-	16 (11%)	1 (20%)	-	3 (13%)
		Total	**5**	**1**	**-**	**148**	**5**	**3**	**24**