

CHAPTER 1

STOCK AND FLOW

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The number of new patients in Australia decreased by 8% in 2009 after an increase of 7% in 2008 and a 2% decrease in 2007. While there is considerable variation in this rate of increase from year to year, over the longer term the rate of increase appears steady.

In New Zealand there was a 14% increase in new patients in 2009 after a 7% increase in 2008 and a 7% decrease in 2007. The number of new patients in 2009, (567) was the highest ever recorded.

Rates of prevalent patients and new patients are shown in Figures 1.1 - 1.3.

The overall number of new transplants (772) decreased by 5% in 2009 after an increase of 32% in Australia in 2008. In 2009, there were 326 live donor transplants reported, an 8% decrease after an increase of 31% in 2008 (354 transplants). This number was the second highest ever recorded.

Further data about stock and flow is shown in Figures 1.6 - 1.14.

The number of new transplants remained similar in 2009 in New Zealand (121 transplants) including 67 live donors, the second highest ever.

Figure 1.1					
Prevalent Patients 2005 - 2009					
(Number Per Million Population at 31st December)					
	2005	2006	2007	2008	2009
Australia Total	15,180 (747)	16,112 (778)	16,826 (801)	17,631 (825)	18,243 (834)
No. Functioning Transplants • #	6541 (322)	6856 (331)	7108 (338)	7496 (351)	7,902 (361)
No. Dialysis Patients	8639 (425)	9256 (447)	9718(462)	10,135 (474)	10,341 (473)
Proportion Home *	31%	31%	31%	31%	30%
Proportion Satellite HD	42%	43%	45%	46%	47%
Proportion CAPD/APD	22%	22%	22%	22%	21%
New Zealand Total	3117 (754)	3245 (775)	3353 (793)	3452 (809)	3663 (849)
No. Functioning Transplants • #	1239 (300)	1247 (298)	1284 (304)	1350 (316)	1403 (325)
No. Dialysis Patients	1878 (454)	1998 (477)	2069 (489)	2102 (492)	2260 (524)
Proportion Home *	54%	54%	52%	52%	51%
Proportion Satellite HD	16%	17%	19%	19%	19%
Proportion CAPD/APD	38%	38%	36%	36%	35%

• Country of Transplant # Patients lost to follow up are not included
* Proportion of all patients dialysing currently receiving home-based treatment (either PD or HD)

Figure 1.2					
Patient Flow Summary 2005 - 2009					
(Number Per Million Population at 31st December)					
* Country of Transplant					
	2005	2006	2007	2008	2009
Australia					
Total New Patients	2291 (113)	2430 (117)	2378 (113)	2534 (119)	2337 (107)
Total New Transplants *	623 (31)	641 (31)	615 (29)	813 (38)	772 (35)
Living Donor Transplants	246	273	271	354	326
Subsequent Transplants	84	92	88	105	99
Total Deaths	1365	1475	1629	1671	1666
Dialysis Patients	1202	1326	1459	1493	1525
Transplant Patients	163	149	170	178	141
New Zealand					
Total New Patients	461 (112)	500 (119)	466 (110)	497 (116)	567 (131)
Total New Transplants *	93 (22)	90 (22)	123 (29)	122 (29)	121 (28)
Living Donor Transplants	46	49	58	69	67
Subsequent Transplants	6	10	11	11	12
Total Deaths	331	367	343	388	365
Dialysis Patients	298	333	296	360	331
Transplant Patients	33	34	47	28	34

Figure 1.3

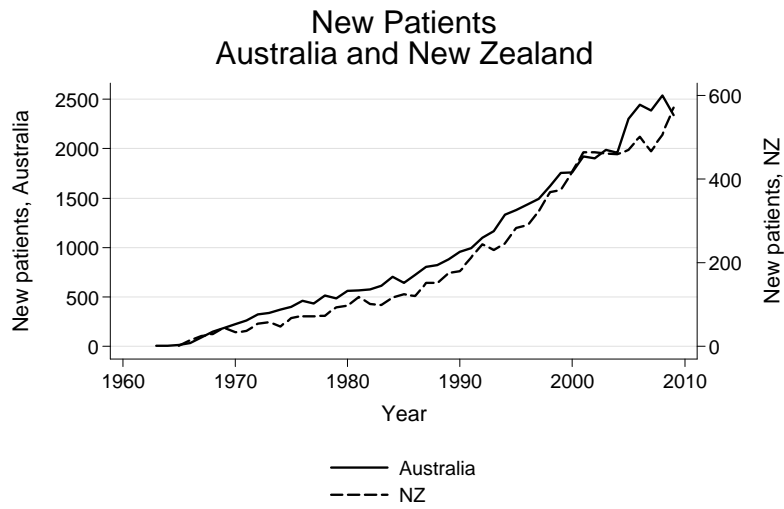


Figure 1.4

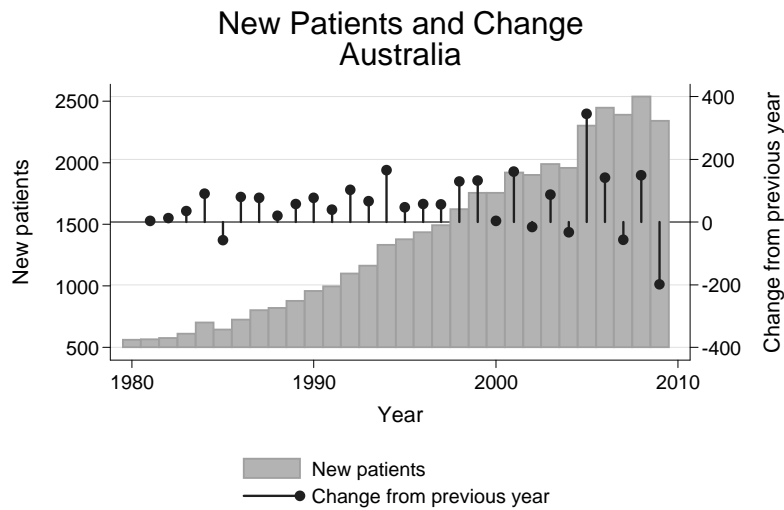


Figure 1.5

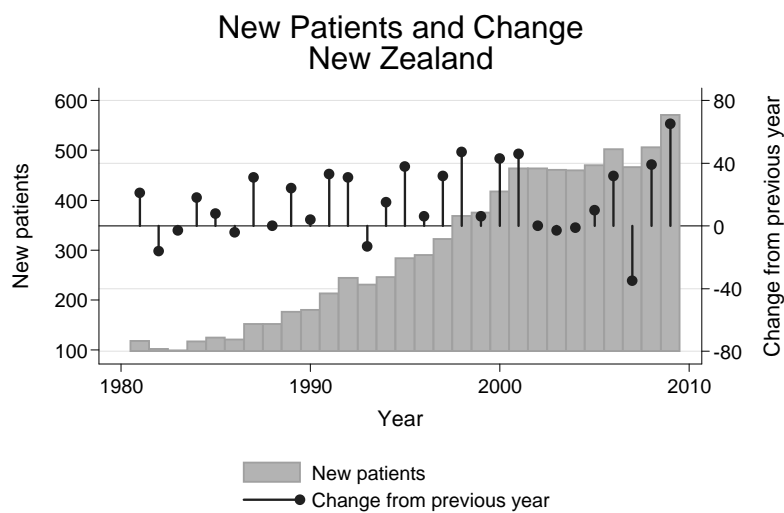




Figure 1.6

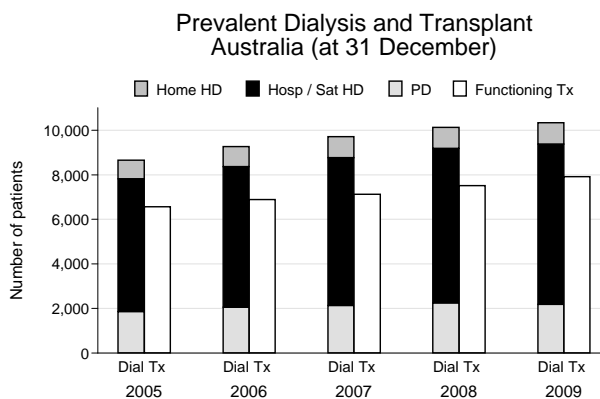
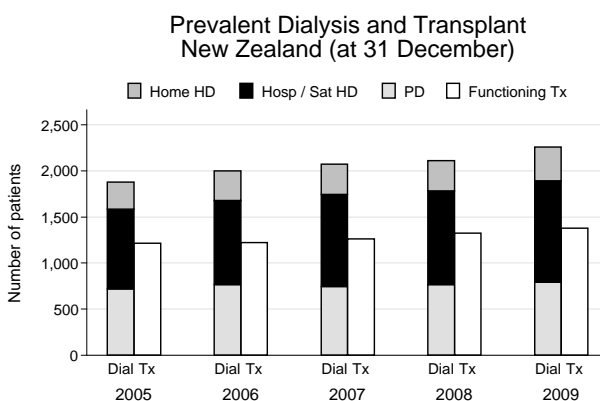


Figure 1.7



The incident rate among Australian Aboriginal, Maori and Pacific People is substantially higher than among non-indigenous people. This, together with lower rates of transplantation, leads to higher rates of prevalent dialysis patients (Figure 1.8).

Figure 1.8						
Prevalence and Incidence by Indigenous Racial Origin, 2005 - 2009 (Number Per Million Population Per Year for Patients) Aboriginal and Torres Strait Islanders Combined						
Race		2005	2006	2007	2008	2009
Australia						
	New Patients	216 (438)	221 (441)	237 (464)	249 (479)	189 (358)
Aboriginal and Torres Strait Islanders	Dialysis	924 (1875)	988 (1970)	1090 (2135)	1157 (2227)	1174 (2220)
	Functioning Transplants *	134 (272)	148 (295)	148 (290)	159 (306)	160 (303)
	Transplant Operations	22 (45)	27 (54)	18 (35)	31 (60)	24 (45)
	Deaths	119 (242)	141 (281)	134 (263)	164 (316)	171 (323)
New Zealand						
	New Patients	138 (223)	168 (269)	147 (232)	157 (244)	170 (260)
Maori	Dialysis	640 (1036)	683 (1094)	687 (1085)	687 (1068)	723 (1107)
	Functioning Transplants *	111 (180)	111 (178)	113 (179)	117 (182)	127 (195)
	Transplant Operations	3 (5)	10 (16)	17 (27)	12 (19)	19 (29)
	Deaths	103 (167)	125 (200)	134 (212)	152 (236)	126 (193)
Pacific People	New Patients	74 (255)	79 (266)	76 (250)	87 (280)	99 (312)
	Dialysis	351 (1210)	371 (1250)	409 (1346)	433 (1393)	485 (1526)
	Functioning Transplants *	72 (248)	77 (259)	78 (257)	85 (273)	87 (274)
	Transplant Operations	4 (14)	7 (24)	6 (20)	10 (32)	6 (19)
	Deaths	44 (152)	54 (182)	34 (112)	55 (177)	48 (151)

* By Transplanting Country

Figure 1.9

National and State Stock and Flow 1-Jan-2009 to 31-Dec-2009							
() 31-Dec-2008 Figures							
State	New Patients	Transplant Operations *	Deaths		Dialysis Dependent	Functioning Transplants # *	Total
			Dialysis	Transplant			
Queensland	486 (531)	136 (140)	310 (337)	27 (47)	1944 (1881)	1567 (1485)	3511 (3366)
New South Wales	717 (805)	222 (223)	489 (472)	53 (49)	3374 (3346)	2232 (2127)	5606 (5473)
Aust. Capital Territory	41 (61)	14 (14)	27 (35)	4 (3)	239 (235)	199 (197)	438 (432)
Victoria	541 (537)	211 (219)	346 (311)	18 (28)	2513 (2476)	2028 (1887)	4541 (4363)
Tasmania	53 (54)	20 (26)	27 (28)	1 (3)	194 (179)	190 (177)	384 (356)
South Australia	195 (185)	82 (106)	107 (102)	17 (21)	670 (629)	861 (829)	1531 (1458)
Northern Territory	72 (89)	5 (4)	43 (57)	4 (3)	418 (397)	68 (74)	486 (471)
Western Australia	232 (272)	82 (81)	176 (149)	51 (52)	989 (992)	781 (745)	1770 (1737)
Australia	2337 (2534)	772 (813)	1525 (1493)	141 (178)	10,341 (10,135)	7926 (7521)	18,267 (17,656)
New Zealand	567 (497)	121 (122)	331 (360)	34 (28)	2260 (2102)	1379 (1325)	3639 (3427)

Patients lost to follow-up are not included * Resident State

Figure 1.10

Prevalent Transplant and Dialysis Patients 1985 to 2009						
Country of Transplant						
# Patients Lost of Follow-up are not included						
(Number Per Million Population at 31 December)						
	Australia			New Zealand		
Year	Transplant #	Dialysis	Total	Transplant #	Dialysis	Total
1985	2163 (137)	2230 (141)	4393 (278)	377 (115)	402 (122)	779 (237)
1986	2392 (149)	2339 (146)	4731 (295)	426 (131)	402 (124)	828 (255)
1987	2574 (158)	2526 (155)	5100 (314)	452 (138)	437 (133)	889 (272)
1988	2798 (169)	2675 (162)	5473 (331)	484 (147)	482 (147)	966 (294)
1989	3054 (182)	2750 (164)	5804 (345)	531 (161)	527 (160)	1058 (321)
1990	3265 (191)	2956 (173)	6221 (365)	579 (174)	557 (167)	1136 (341)
1991	3493 (202)	3138 (182)	6631 (384)	607 (174)	630 (180)	1237 (354)
1992	3699 (211)	3383 (193)	7082 (405)	677 (192)	674 (191)	1351 (383)
1993	3872 (219)	3703 (210)	7575 (429)	705 (197)	721 (202)	1426 (399)
1994	4064 (228)	4099 (230)	8163 (457)	731 (202)	784 (217)	1515 (418)
1995	4236 (234)	4518 (250)	8754 (484)	783 (213)	850 (231)	1633 (445)
1996	4449 (243)	4882 (267)	9331 (510)	824 (221)	934 (250)	1758 (471)
1997	4697 (254)	5190 (280)	9887 (534)	882 (233)	1017 (269)	1899 (502)
1998	4921 (263)	5536 (296)	10,457 (559)	936 (245)	1126 (295)	2062 (540)
1999	5091 (269)	6019 (318)	11,110 (587)	983 (256)	1230 (321)	2213 (577)
2000	5293 (276)	6408 (335)	11,701 (611)	1023 (265)	1331 (345)	2354 (610)
2001	5507 (284)	6850 (353)	12,357 (637)	1063 (274)	1462 (377)	2525 (651)
2002	5782 (294)	7263 (370)	13,045 (664)	1116 (283)	1594 (404)	2710 (686)
2003	6002 (302)	7720 (388)	13,722 (690)	1168 (290)	1711 (425)	2879 (715)
2004	6290 (313)	8004 (398)	14,294 (711)	1221 (299)	1774 (434)	2995 (733)
2005	6541 (322)	8639 (425)	15,180 (747)	1239 (300)	1878 (454)	3117 (754)
2006	6856 (331)	9256 (447)	16,112 (778)	1247 (298)	1998 (477)	3245 (775)
2007	7108 (338)	9718 (462)	16,826 (801)	1284 (304)	2069 (489)	3353 (793)
2008	7496 (351)	10,135 (474)	17,631 (825)	1350 (316)	2102 (492)	3452 (809)
2009	7902 (361)	10,341 (473)	18,243 (834)	1403 (325)	2260 (524)	3663 (849)



There is substantial variation in incidence rates and especially transplant rates leading to differences in the balance between dialysis and transplantation in various States (Figure 1.11 - 1.14).

Figure 1.11

Comparison of Prevalent Transplant and Dialysis Dependent Patients
2005 - 2009
(Number Per Million Population at 31 December)

	2005	2006	2007	2008	2009
Transplants **					
Queensland	1312 (331)	1353 (331)	1400 (335)	1485 (347)	1567 (356)
New South Wales *	1915 (291)	1991 (301)	2032 (304)	2127 (315)	2232 (324)
Aust. Capital Territory *	185 (349)	188 (347)	193 (351)	197 (354)	199 (351)
Victoria	1589 (316)	1688 (329)	1766 (339)	1887 (356)	2028 (374)
Tasmania	143 (295)	154 (314)	165 (334)	177 (355)	190 (378)
South Australia	707 (458)	746 (476)	784 (495)	829 (518)	861 (531)
Northern Territory	71 (350)	73 (347)	78 (363)	74 (336)	68 (302)
Western Australia	638 (317)	681 (331)	703 (334)	745 (344)	781 (349)
Australia	6560 (323)	6874 (332)	7121 (339)	7521 (352)	7926 (362)
New Zealand	1220 (295)	1229 (294)	1271 (301)	1325 (310)	1379 (320)
** By Resident State and Country					
Dialysis					
Queensland	1603 (404)	1704 (416)	1808 (432)	1881 (440)	1944 (441)
New South Wales *	2768 (421)	3025 (458)	3188 (477)	3346 (495)	3374 (490)
Aust. Capital Territory *	192 (362)	206 (380)	215 (391)	235 (422)	239 (422)
Victoria	2188 (436)	2345 (457)	2406 (462)	2476 (467)	2513 (463)
Tasmania	156 (321)	163 (333)	175 (355)	179 (359)	194 (386)
South Australia	569 (369)	604 (385)	626 (395)	629 (393)	670 (413)
Northern Territory	316 (1558)	334 (1585)	368 (1712)	397 (1805)	418 (1859)
Western Australia	847 (421)	875 (425)	932 (443)	992 (459)	989 (442)
Australia	8639 (425)	9256 (447)	9718 (462)	10,135 (474)	10,341 (473)
New Zealand	1878 (454)	1998 (477)	2069 (489)	2102 (492)	2260 (524)
* 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 this Southern Area Region) Transplanted patients lost to follow up have been excluded					

Figure 1.12

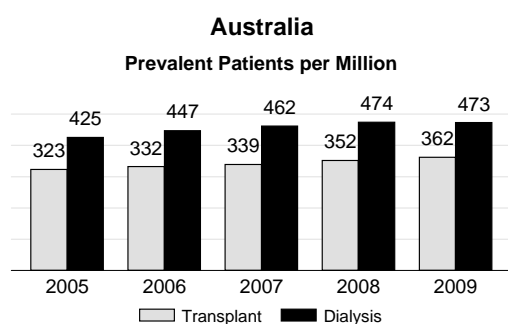


Figure 1.13

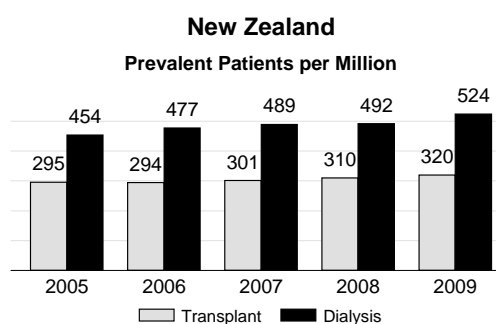


Figure 1.14

Comparison of Transplant and Dialysis Dependent Patients 2005 - 2009

