

CHAPTER 1

STOCK AND FLOW

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The number of new patients in Australia decreased by 5% in 2007 after a 6% increase in 2006 and an 18% increase in 2005. While there is considerable variation in this rate of increase from year to year, over the longer term the rate of increase is steady.

In New Zealand there was a 8% decrease in 2007 after an 8% increase in 2006 and a return to the numbers previously seen each year since 2001.

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

The overall number of new transplants decreased by 4% in Australia in 2007 after a rise of 3% the previous year, and live donors continue to increase overall, although 2007 was similar to the previous year.

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

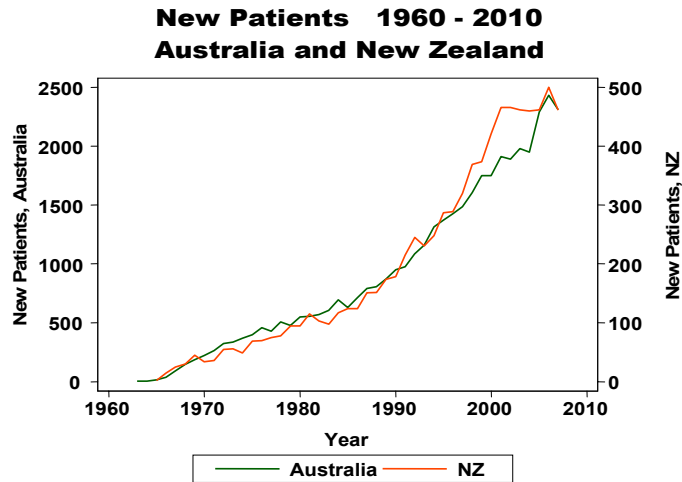
There was a 37% increase in transplantation in New Zealand (123 transplants), with an increase of 18% in live donors (58 donors) the highest ever, in 2007.

Figure 1.1					
Prevalent Patients 2003 - 2007					
(Number Per Million Population at 31st December)					
	2003	2004	2005	2006	2007
Australia Total	13,705 (689)	14,275 (710)	15,157 (746)	16,088 (777)	16,751 (797)
No. Functioning Transplants • #	5982 (301)	6267 (312)	6523 (321)	6837 (330)	7109 (338)
No. Dialysis Patients	7723 (388)	8008 (398)	8634 (425)	9251 (447)	9642 (459)
Proportion Home *	34%	32%	31%	31%	31%
Proportion Satellite HD	39%	42%	42%	43%	45%
Proportion CAPD/APD	24%	22%	22%	22%	22%
New Zealand Total	2883 (716)	3000 (734)	3119 (754)	3224 (770)	3353 (793)
No. Functioning Transplants • #	1168 (290)	1221 (299)	1239 (300)	1248 (298)	1289 (305)
No. Dialysis Patients	1715 (426)	1779 (435)	1880 (455)	1996 (477)	2064 (488)
Proportion Home *	59%	57%	54%	54%	51%
Proportion Satellite HD	15%	16%	16%	17%	19%
Proportion CAPD/APD	45%	42%	38%	38%	36%

• 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 2003 - 2007					
(Number Per Million Population at 31st December)					
* Country of Transplant					
	2003	2004	2005	2006	2007
Australia					
Total New Patients	1981 (100)	1949 (97)	2293 (113)	2433 (118)	2311 (110)
Total New Transplants *	543 (27)	650 (32)	623 (31)	641 (31)	615 (29)
Living Donor Transplants	218	244	246	273	271
Subsequent Transplants	71	67	84	92	88
Total Deaths	1264	1353	1361	1472	1603
Dialysis Patients	1120	1208	1202	1326	1452
Transplant Patients	144	145	159	146	151
New Zealand					
Total New Patients	462 (115)	460 (113)	462 (112)	500 (119)	461 (109)
Total New Transplants *	111 (28)	105 (26)	93 (22)	90 (22)	123 (29)
Living Donor Transplants	44	48	46	49	58
Subsequent Transplants	17	7	6	10	11
Total Deaths	291	333	331	367	339
Dialysis Patients	264	306	298	333	295
Transplant Patients	27	27	33	34	44

Figure 1.3



Numbers of new (incident) RRT patients in Australia have been progressively increasing with a recent drop in 2007. Whether there has been a substantial change in the overall pattern will not be apparent for several years.

Rates in New Zealand have clearly stabilised for the past five years.

Figure 1.4

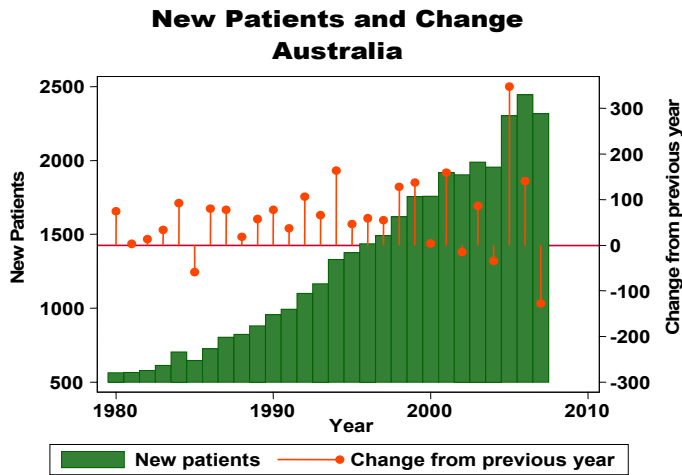


Figure 1.5

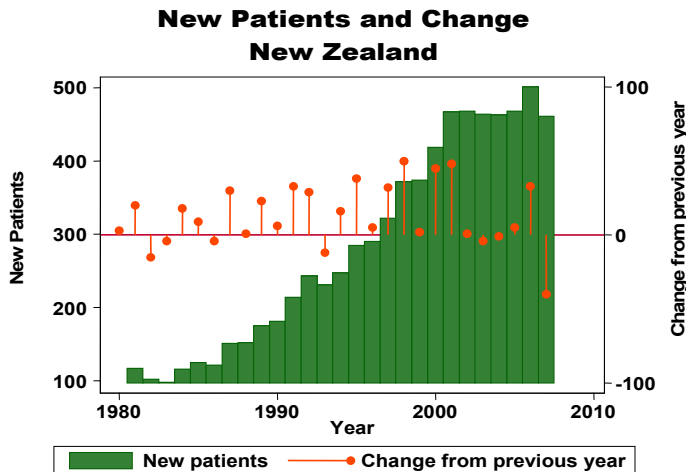




Figure 1.6

**Prevalent Dialysis and Transplants
Australia (at 31st December)**

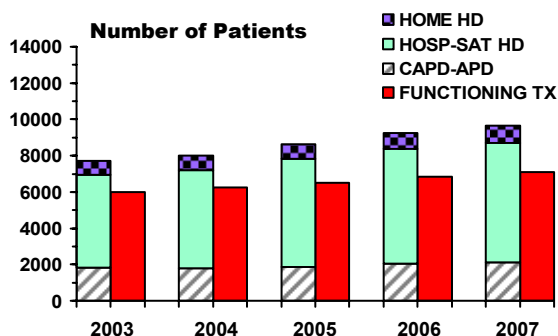
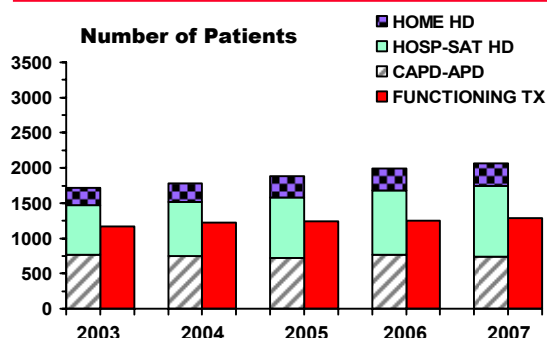


Figure 1.7

**Prevalent Dialysis and Transplants
New Zealand (at 31st December)**



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).

Race		2003	2004	2005	2006	2007
Australia						
	New Patients	174 (370)	193 (400)	217 (440)	218 (430)	218 (430)
Aboriginal and Torres Strait Islanders	Dialysis	772 (1630)	836 (1730)	923 (1870)	984 (1960)	1065 (2090)
	Functioning Transplants	118 (250)	124 (260)	133 (270)	147 (290)	148 (290)
	Transplant Operations	13 (30)	26 (50)	22 (40)	27 (50)	18 (40)
	Deaths	114 (240)	121 (250)	119 (240)	141 (280)	134 (260)
New Zealand						
	New Patients	148 (245)	142 (233)	137 (222)	169 (271)	146 (231)
Maori	Dialysis	588 (975)	600 (982)	639 (1035)	683 (1094)	688 (1087)
	Functioning Transplants	112 (186)	116 (190)	111 (180)	111 (178)	113 (179)
	Transplant Operations	16 (27)	12 (20)	3 (5)	10 (16)	17 (27)
	Deaths	87 (144)	128 (210)	103 (167)	125 (200)	133 (210)
	New Patients	80 (290)	65 (230)	74 (255)	78 (263)	76 (250)
Pacific People	Dialysis	309 (1120)	330 (1166)	351 (1211)	370 (1247)	408 (1343)
	Functioning Transplants	63 (228)	70 (247)	72 (248)	77 (259)	79 (260)
	Transplant Operations	14 (51)	12 (42)	4 (14)	7 (24)	6 (20)
	Deaths	37 (134)	37 (131)	44 (152)	54 (182)	34 (112)

Figure 1.9
National and State Stock and Flow 1-Jan-2007 to 31-Dec-2007

() 31-Dec-2006 Figures

Patients Lost to Follow-up are not included

* Resident State

State	New Patients	Transplant Operations *	Deaths		Dialysis Dependent	Functioning Transplants # *	Total
			Dialysis	Transplant			
Queensland	450 (497)	114 (104)	281 (300)	28 (36)	1788 (1705)	1405 (1352)	3193 (3057)
New South Wales	743 (771)	168 (170)	453 (396)	62 (47)	3169 (3023)	2025 (1974)	5194 (4997)
Aust. Capital Territory	55 (54)	14 (18)	32 (22)	5 (2)	213 (205)	198 (191)	411 (396)
Victoria	534 (567)	163 (166)	367 (301)	18 (22)	2402 (2347)	1772 (1687)	4174 (4034)
Tasmania	54 (50)	20 (20)	31 (22)	4 (5)	173 (162)	166 (155)	339 (317)
South Australia	164 (185)	74 (88)	90 (83)	15 (26)	620 (603)	786 (746)	1406 (1349)
Northern Territory	70 (75)	5 (7)	37 (52)	2 (1)	361 (332)	79 (73)	440 (405)
Western Australia	241 (234)	56 (68)	162 (150)	17 (7)	916 (874)	697 (678)	1613 (1552)
Australia	2311 (2433)	614 (641)	1452 (1326)	151 (146)	9642 (9251)	7128 (6856)	16,770 (16,107)
New Zealand	461 (500)	124 (90)	295 (333)	44 (34)	2064 (1996)	1270 (1229)	3334 (3225)

Historical data (Figure 1.10) show a steady increase in the number of prevalent patients in both Australia and New Zealand.

Figure 1.10
Prevalent Transplant and Dialysis Patients 1984 to 2007

Country of Transplant

Patients Lost of Follow-up are not included

(Number Per Million Population at 31 December)

Year	Australia			New Zealand		
	Transplant #	Dialysis	Total	Transplant #	Dialysis	Total
1984	1971 (127)	2152 (138)	4123 (265)	348 (107)	370 (113)	718 (220)
1985	2163 (137)	2230 (141)	4393 (278)	377 (115)	402 (122)	779 (237)
1986	2392 (149)	2339 (146)	4731 (295)	426 (129)	402 (122)	828 (250)
1987	2574 (158)	2526 (155)	5100 (314)	452 (135)	437 (131)	889 (266)
1988	2798 (169)	2675 (162)	5473 (331)	484 (145)	482 (144)	966 (289)
1989	3054 (182)	2750 (164)	5804 (345)	531 (158)	527 (156)	1058 (313)
1990	3265 (191)	2956 (173)	6221 (365)	579 (171)	557 (162)	1136 (331)
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	3870 (219)	3703 (210)	7573 (429)	705 (197)	721 (202)	1426 (399)
1994	4061 (227)	4098 (230)	8149 (456)	731 (202)	784 (217)	1515 (418)
1995	4231 (234)	4519 (250)	8750 (484)	783 (213)	851 (232)	1634 (445)
1996	4443 (243)	4883 (267)	9326 (509)	824 (221)	935 (250)	1759 (471)
1997	4690 (253)	5190 (280)	9880 (534)	882 (233)	1018 (269)	1900 (502)
1998	4907 (262)	5536 (296)	10,443 (558)	936 (245)	1127 (295)	2063 (541)
1999	5079 (268)	6021 (318)	11,100 (586)	983 (256)	1231 (321)	2214 (577)
2000	5283 (276)	6409 (335)	11,692 (610)	1023 (265)	1334 (346)	2357 (611)
2001	5496 (283)	6853 (353)	12,349 (636)	1063 (274)	1465 (376)	2528 (651)
2002	5764 (293)	7265 (370)	13,029 (663)	1116 (283)	1599 (405)	2715 (688)
2003	5982 (301)	7723 (388)	13,705 (689)	1168 (290)	1715 (426)	2883 (716)
2004	6267 (312)	8008 (398)	14,275 (710)	1221 (299)	1779 (435)	3000 (734)
2005	6523 (321)	8634 (425)	15,157 (746)	1239 (300)	1880 (455)	3119 (754)
2006	6837 (330)	9251 (447)	16,088 (777)	1248 (298)	1996 (477)	3224 (770)
2007	7109 (338)	9642 (459)	16,751 (797)	1289 (305)	2064 (488)	3353 (793)



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
2003 - 2007
(Number Per Million Population at 31 December)

	2003	2004	2005	2006	2007
Transplants **					
Queensland	1232 (324)	1272 (328)	1311 (331)	1352 (330)	1405 (336)
New South Wales *	1762 (272)	1837 (281)	1898 (289)	1974 (299)	2025 (303)
Aust. Capital Territory *	163 (313)	182 (347)	185 (349)	191 (355)	198 (363)
Victoria	1444 (294)	1505 (303)	1588 (316)	1687 (329)	1772 (340)
Tasmania	130 (272)	141 (292)	144 (297)	155 (316)	166 (336)
South Australia	654 (428)	695 (453)	708 (459)	746 (476)	786 (496)
Northern Territory	67 (338)	73 (365)	71 (350)	73 (347)	79 (367)
Western Australia	549 (281)	582 (294)	637 (317)	678 (329)	697 (331)
Australia	6001 (302)	6287 (313)	6542 (322)	6856 (331)	7128 (339)
New Zealand	1149 (285)	1201 (294)	1220 (295)	1229 (294)	1270 (300)
** By Resident State and Country					
Dialysis					
Queensland	1339 (353)	1443 (372)	1604 (405)	1705 (417)	1788 (428)
New South Wales *	2542 (392)	2556 (391)	2764 (421)	3023 (457)	3169 (474)
Aust. Capital Territory *	187 (360)	185 (353)	192 (362)	205 (381)	213 (391)
Victoria	1991 (405)	2056 (413)	2187 (435)	2347 (458)	2402 (461)
Tasmania	152 (319)	147 (305)	156 (321)	162 (331)	173 (351)
South Australia	505 (331)	512 (334)	568 (368)	603 (385)	620 (391)
Northern Territory	249 (1255)	279 (1396)	315 (1553)	332 (1576)	361 (1679)
Western Australia	758 (388)	830 (419)	848 (422)	874 (424)	916 (435)
Australia	7723 (388)	8008 (398)	8634 (425)	9251 (447)	9642 (459)
New Zealand	1715 (426)	1779 (435)	1880 (455)	1996 (477)	2064 (488)
* 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

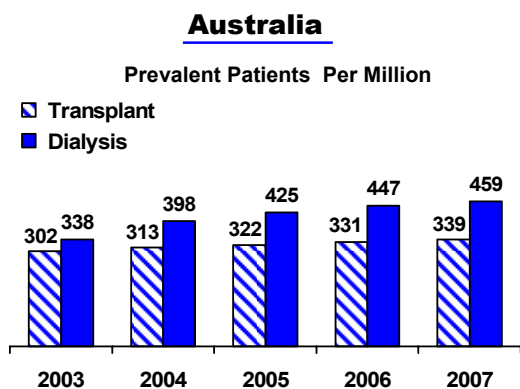


Figure 1.13

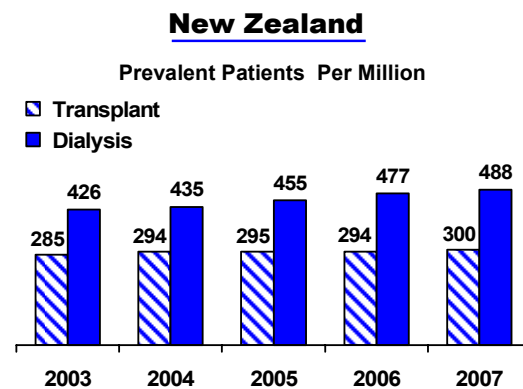


Figure 1.14

Comparison of Transplant and Dialysis Dependent Patients 2003 - 2007

